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The Proteome of Mouse Brain Microvessel Membranes and Basal Lamina

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by

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LIST OF ABBREVIATIONS

ABC	ATP binding cassette family
Aqp4	Aquaporin-4
BBB	Blood-brain barrier
DAPI	4’,6-diamidino-2-phenylindole
ECM	Extracellular matrix
FITC	Fluorescein isothiocyanate
MudPIT	Multi-dimensional Protein Identification Technology
NVU	Neurovascular Unit
Pgp	P-glycoprotein (ABCB1)
S0	Whole brain
S1	Crude microvessel preparation
S5	Purified microvessel preparation
SLC	Solute Carrier family of membrane transport proteins
Syn	Synaptophysin

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ABSTRACT OF THE THESIS

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The blood-brain barrier (BBB) is a multi-cellular vascular structure in the central nervous system that separates the circulating blood from the brain parenchyma. It is composed of microvessels made of endothelial cells with tight intercellular junctions surrounded by a basal lamina, astrocytes, and pericytes. In

many diseased states of the brain, the integrity of the BBB is compromised and the changes in protein levels of key regulators such as transporters leave the brain open for attack. Previous studies have generated detailed databases of the microvessel transcriptome, however, less information is available on the BBB at the protein level. The focus of this study is not to elucidate on proteins that are already widely known and are hallmarks of the BBB but to generate a more extensive protein database of relatively unknown and unique proteins that can be used to gain further insight into the structure and function of the BBB. We specifically focused on the characterization of the membrane fraction of cells within the BBB to generate a more complete understanding of membrane transporters, tight junction proteins, and associated extracellular matrix proteins. Using Multidimensional Protein Identification Technology. 53% out of a total of 1,143 proteins found in mouse brain microvessels were determined to be membrane-associated. Analyses of specific classes of BBB-associated proteins in the context of recent transcriptome and proteome reports provides a unique database to assess the relative contribution of genes at the RNA and protein level in the maintenance of normal BBB integrity.

INTRODUCTION

1.1 Blood-brain barrier – Physiological Function and Morphology

The blood brain barrier (BBB) is a multi-cellular structure that consists primarily of endothelial cells and astrocytes endfeet separated by a basal lamina (Abott et al., 2006). The functional barrier itself between the circulating blood and the brain parenchyma is created by apical junction complexes such as tight junctions between specialized endothelial cells in the brain microvasculature. The different cellular components (i.e. astrocytes, pericytes, and neurons) that cooperatively work to regulate the integrity of the BBB are termed neurovascular unit (NVU). The function of these specialized endothelial-associated cells, there secreted proteins, the tight inter-endothelial barrier itself, the unique transcellular transport, and active efflux pumps combine to yield a unique vascular barrier in the brain (Agarwal et al., 2009; Daneman et al., 2010; Enerson and Drewes, 2006).

1.2 Importance of BBB integrity with Focus on Structural Barriers

The brain microvasculature consisting of densely packed microvessels contain the structural basis of the BBB. Due to the high capillary density in the brain, single capillaries are approximately 40 μm apart from each other, a distance short enough for small molecules to diffuse within a second (Rodriguez-Baeza et al., 2003). Generally, tight junction proteins are thought to act as the main physical and functional barrier of the BBB by sealing the space between endothelial cells to create a tight, non-fenestrated capillary that restricts free diffusional exchange of solutes (Nag, 2003), however studies with iron nanoparticles (Neuwelt et al., 1998) demonstrate that additional components of the neurovascular unit need to be considered. The iron nanoparticles used were superparamagnetic dextran-coated

monocrystalline iron oxide particles with sizes of the same order of magnitude as viral particles. Electron microscopy of brain sections from rats that have had their BBB permeability and also have iron nanoparticles intravenously injected, showed that the iron nanoparticles passed the capillary endothelial cells but did not cross beyond the basement membrane, which is evidence for a physiological barrier in the basal lamina between the astrocytes endfeet and the endothelial cells (Neuwelt et al., 1998). With this in mind, the NVU as a whole with its different cell components must be considered when exploring the BBB integrity.

1.2 Integrity of the Blood-brain Barrier and Importance in Disease States

The primary role of the BBB in brain homeostasis is to regulate the transport of various substances between the blood and the brain such as drugs and metabolites using membrane transporters (Banks, 2009). Tight regulation of the BBB is integral in maintaining the metabolic homeostasis in the brain and in preventing toxins or pathogens from entering the brain parenchyma. In brain pathophysiology, the breakdown of the blood-brain barrier and alterations to its transport systems play a significant role in many CNS diseases including glioblastoma multiforme (GBM), traumatic brain injury, edema, multiple sclerosis, Alzheimer's disease, strokes, and HIV-1 encephalitis (Persidsky et al., 2006; Pottiez et al., 2009a). For example, the influence of gliomas on the blood-brain barrier leads to its breakdown and aggressive invasion of the surrounding brain parenchyma through mechanisms that still remains poorly understood (Lee et al., 2009).

1.3 Isolation of Mouse Brain Microvessels

This study focuses on the identification of BBB protein components, especially membrane and extracellular components, from freshly isolated semi-intact microvessel. The microvessels are isolated from brain tissue using a density gradient centrifugation method and are purified using a glass bead column, all within a few hours to yield intact microvessels. These isolated and purified microvessels with a diameter of 1-10um maintain viability and are able to exhibit BBB function (Dallaire et al.,, 1991). As a form of ion affinity chromatography, the purification process works by extracellular matrix (ECM) glycoproteins, such as fibronectin and laminin (proteins found in our MudPIT results and are classically known ECM proteins surrounding brain capillaries), having strong interactions with the glass beads (Barnes et al.,, 1984). This fresh isolation procedure eliminates potential fixation, cell culture, and cell suspension artifacts by decreasing the relative time of isolation and purification, thus obtaining the most complete and pure resource of BBB-associated proteins to date.

1.4 Novelty of Our Proteomic Study

Previous studies have examined gene and protein expression profiles of cultured brain endothelial cells which have yielded important expression profile data cataloging gene families using *in vitro* models (Agarwal and Shusta, 2009; Haseloff et al., 2006; Shusta et al., 2002). However, cell culture itself influences the relative abundance of various BBB cell subtypes, gene expression profiles and/or the ECM microenvironment. The integrity or the breakdown of the blood-brain barrier depends on the NVU as a whole. Many other techniques are currently used to isolate microvessels such as mechanical isolation, enzymatic isolation, and laser capture microdissection (Yousif et al., 2006). Microdissection strategies to recover

microvessels from brain tissue have yielded useful, comparative information on the protein expression profiles from an intact BBB. However, this approach requires fixation, laser dissection, immunostaining, and subsequent gel electrophoresis analysis. These conditions may also change the relative protein expression profiles like cell culture. Therefore, we focused on a fresh microvessel isolation to characterize the BBB proteome from mouse brains and then validated the isolation technique using immunoblotting to establish quality control. Based on our interest in developing a resource identifying ECM components and BBB membrane proteins that contribute to ECM interactions, we focused on a membrane-enrichment strategy for mass spectrometry-based protein profiling. Agrin, an ECM protein, and aquaporin-4, an astrocytic endfeet protein, are known to have an important impact on the homeostasis between the brain parenchyma and the circulating blood, but the mechanism cascade from the astrocytes membrane to the endothelial cells to maintain BBB integrity remains completely unknown (Wolburg et al., 2009a).

1.5 Proteomics – MudPIT

Historically, BBB protein analyses depended on various gel electrophoretic-based techniques for protein separation, followed by antibody or mass spectrometry for protein identification. However, protein separation and identification is limited due to the limited insolubility of membrane/ECM proteins and gel electrophoretic resolution. The use of Multidimensional Protein Identification Technology (MudPIT) enables the discrete identification of a large number of proteins from complex protein mixtures obtained from freshly isolated tissues and does not require fixed/frozen samples or single cell suspension-based isolation techniques, i.e. flow cytometry or magnetic beads (Aebersold and Mann, 2003; Pottiez et al., 2009a; Wasburn et al.,

2001; Wu et al., 2003). Moreover, a recent study has used mass spectrometry with the addition of isotope labeled peptide standards to provide quantitation for known proteins (Uchida et al., 2011).

1.6 Objectives and Summary

In our study, freshly isolated normal mouse brain microvessels were isolated, its membranes fractionated, underwent proteolysis, and were followed by protein profiling with MudPIT. We have performed multiple MudPIT runs to maximize coverage of membrane proteins of both high and low abundance and to establish standards for technical replicates within the same samples and between different tissue collections. Identified proteins were assigned to various BBB classes based on classical markers for specific cell types and as well as recent proteomic and transcriptome studies (Daneman et al., 2010; Enerson and Drewes, 2006). Our strategy enabled the identification and classification of BBB membrane transporters, tight junction proteins, integrins, ECM proteins and proteoglycans. We discuss the classes of proteins identified and their relative abundance for the purpose of providing a resource for the membrane protein constituents of the normal BBB.

MATERIALS AND METHODS

2.1 Mouse Brain Microvessel Isolation

Mouse brain microvessels were isolated using a modified protocol based on previously published studies (Hartz et al., 2006; Yousif et al., 2007) based on the IACUC approval of the University of California San Diego. For each preparation, mice (n=6) were over-dosed with 5% isoflourane and the brains were harvested. All subsequent steps were carried out at 4°C or on ice. After a wash in PBS, the brains were homogenized using a dounce (0.25 mm clearance) (whole brain is defined as the S0 fraction, a nomenclature of S0, S1 and S5 to describe the microvessel fractionation steps consistent with the microvessel isolation procedure as described below and previously by Yousif et al.,. (Yousif et al., 2007)). 15 mL of 30% Ficoll was added to 10 mL of the homogenate and mixed thoroughly. The resulting density gradient was spun at 5800xg for 20 min. (Pellet was defined as the S1 fraction). The pellet was resuspended in 1mL of PBS and passed using PBS with 1% BSA through a glass bead column, with 100 µm nylon mesh filter on the top and a 20 µm nylon mesh filter on the bottom. The glass beads were gently agitated in PBS with 1% BSA to obtain the microvessels. The resulting sample was washed with BSA-free PBS before use in experiments, and defined as the S5 fraction.

2.2 Biochemical Analyses in Isolated Endothelial Cells

Mouse brain microvessels were isolated as described previously. Mice were injected with 1 mg of FITC-lectin (FL 1101-5; Vector Labs) 20 minutes prior to sacrifice to validate the integrity of isolated vessels. The following antibodies were

used to validate microvessel confirmation; anti-Synaptophysin (Abcam; 1:1,000), anti-AQ4 (Millipore; 1:500), anti-P-glycoprotein (Abcam; 1:250).

2.3 Endothelial Cell Lysis Using Nitrogen Cavitation

At 4°C, approximately 40µL of tissue/cells were suspended 0.5mL of relaxation buffer (pH 7.25, 50 mM KCl, 1.5 mM NaCl, 5 mM PIPES, 1.75 mM MgCl2, 1 mM ATP, 0.62 mM EGTA). The cell suspension was placed in a 15 mL conical tube, cavitation bomb tubing attached, and nitrogen pressure (500-700 psi) applied for 10 minutes. After placing a clean 15 mL receiving tube at the end of the pressure relief tubing pressure relief valve was gently opened to collect lysed cells. The tubing was then purged to an additional 0.5 mL of relaxation buffer and pooled with the lysate.

2.4 Endothelial Cell Lysate Membrane Fractionation and Protein Digest

At 4°C, the lysate was placed in a microfuge tube and spun at 750xg for 5 minutes. The supernatant was placed in a 5 mL ultracentrifuge tube with relaxation buffer to a total volume of 4.8 mL, and centrifuged at 100,000 xg for 90 min. The supernatant, containing the cytosolic proteins, was discarded, while the pellet, containing the membrane proteins, was resuspended in 15 µL 8M urea followed by 20 µL 0.2% ProteaseMAX acid-labile surfactant (Promega, Madison, WI) in 50 mM ammonium bicarbonate. Aliquots of resuspended membrane proteins were analyzed for total protein content by Bradford protein assay (BioRad Corporation, Hercules, CA). Proteins were then reduced with dithiothreitol and carbamidomethylated with iodoacetamide prior to tryptic digestion according to the ProteaseMAX technical bulletin (ProteaseMAX surfactant, Trypsin Enhancer; #TB373; Promega Corporation,

Madison WI). Digestion was stopped by addition of 90% formic acid to obtain a final in-digest concentration of 5% formic acid.

2.5 Multidimensional Liquid Chromatography – Mass Spectrometry (MudPIT)

Samples in 1.5 mL microfuge tubes were diluted 1:2 with 5% acetonitrile 0.1% formic acid (Buffer A), centrifuged at 13,000 xg for 10 minutes, and supernatant proportionate to 15 µg of protein was transferred to a new microfuge tube for loading to a MudPIT precolumn. The MudPIT precolumn (250 µm internal diameter) with 4 cm of strong cation exchange 5 µm resin (Partisphere SCX, GE Healthcare) was preceded by 3 cm of C18 stationary phase column (5 µm particle size, Jupiter C18, Phenomenex Corporation). The resolving column dimensions were 100 µm (internal diameter) with 10 cm of C18 stationary phase. Operating parameters of the MudPIT experiment are provided in the Supplementary Data Table 2, based on the standards provided by the Minimum Information About a Proteomics Experiment (MIAPE, http://psidev.sourceforge.net/miape/)

2.6 Bioinformatic Analyses

Spectra were searched using SEQUEST, and filtered using DTASelect2 [http://www.scripps.edu/chemphys/cravatt/protomap/dtaselect_instructions.html]. Spectral count data were then processed using PatternLab for Proteomics (Carvalho et al., 2008). The spectral count information stored in the DTAselect-filter.txt files was extracted by using the Perl script dtarray2.pl (Kaschani et al., 2009). The resulting dtarray2.txt file was loaded into Excel (Microsoft Corp.) and further ordered. This arrangement is the source for the master list of protein identifications in Supplementary Table 1. Information for IPI is located at:

http://www.ebi.ac.uk/IPI/IPIhelp.html. Information on Uniprot Knowledgebase is located at http://www.uniprot.org/help/uniprotkb. For SEQUEST searches followed by DTASelect2 processing, the following criteria were utilized: (a) a 1% false positive discovery rate; (b) a minimum of two unique tryptic peptides per identification was required; (c) oxidation of methionine (+16Da) was allowed as a differential modification; and (d) cysteines were required to be carbamidomethylated (+57 Da).

Statistical validation was performed for every protein hit using statistical functions and parameters set within the SEQUEST search as we have previously described in detail (Tabb et al.,., 2002). Additional information on the use of DTASelect2 is available at http://www.scripps.edu/chemphys/cravatt/protomap/dtaselect_instructions.html, along with additional information on data analysis of shotgun proteomics (Yates et al.,., 2009).

RESULTS

3.1 Microvessel Isolation and Validation

The cortices of normal mouse brains were dissected and subjected to a multistep isolation protocol (includes the key steps: homogenization, density centrifugation, and filtration through glass bead column; see overview in Figure 1A) that has been previously described and utilized for transcriptome analysis, BBB transporter, and cell signaling studies (Enerson and Drewes, 2006; Hartz et al., 2006; Yousif et al., 2007). To verify the enrichment of brain microvessel material after density centrifugation in comparison to a step before (after homogenization), we first examined the integrity of the microvessel lumens by staining the vasculature prior to harvest. Mice were subjected to an intravenous injection of fluorescently-labeled endothelial cell-binding lectin from the plant Griffonia simplicifolia (Figure 1B). After harvest of the labeled brain and harvest of the microvessels from the Ficoll gradient (termed S1 as described by Yousif et al.,. and see Materials and Methods for further details), samples were subjected to imaging by laser scanning confocal microscopy to reveal stained microvessels based on the fluorescent lectin binding to the lumen of the endothelia. Further enrichment of microvessel preparations were achieved by filtration through a glass bead column (S5; Yousif et al., 2007), leading to a significant reduction of cellular debris. This reduction was verified by imaging the different sample preparations (S1 vs. S5) by phase microscopy. The staining of the samples with DAPI validates the nuclear integrity and that the endothelial cells in the micrvoessels are intact (Figure 1C). Consistent with previous studies (Yousif et al., 2007), microvessels were most enriched in the S5 preparation (i.e. after glass bead purification) vs. the S1 preparation (i.e. prior to glass bead purification), as evidenced

by the loss of cellular debris, such as neurons and unnecessary neuroglia. To further confirm the validation of enrichment by biochemical analyses, lysates of whole brain (i.e. S0) were compared to purified microvessels (i.e. S5) by immunoblotting. Antibodies to the endothelial (i.e. P-glycoprotein, Pgp/Abcb1), neuronal (i.e. Synaptophysin, Syn), and astrocyhte endfoot (i.e. Aquaporin-4 , Aqp4) compartments of the BBB were used. While both Pgp and Aqp4 were increased as predicted in the isolated microvessels (Figure 1D), levels of the neuronal marker (Syn) were decreased. This immunblot result indicates a relative enrichment of the key components of the BBB, endothelial cells and vessel associated astrocytes endfeet, in the S5 fraction vs. the S0 fraction. These quality control techniques (i.e. lectin staining, microscopy, and immunoblotting) were performed on parallel samples or aliquots of the preparations used for proteomic analysis, to ensure the most rapid processing of fresh unstained microvessels for membrane fractionation and subsequent proteomic analysis.

2.2 Proteomic Profile of Mouse Brain Microvessel Membranes

After the microvessels have been isolated, purified, and enriched (S5), they were subjected to nitrogen cavitation lysis, membrane isolation, tryptic digestion, and prepared for mass spectrometry analysis as described in the Materials and Methods. The gentle lysis by nitrogen cavitation ensured that the proteins stayed intact as cytosolic components were separated from the membrane. The membrane proteins were then subject to tryptic digestion with ProteaseMAX (Promega) for maximal solubilization and peptide recovery. ProteaseMAX, which is a hydrophobic anionic sulfonate surfactant, enhances the solubilization and peptide recovery of hard to digest membrane proteins by allowing the proteins to become more accessible to the

protease trypsin. The surfactant is also classified as a cleavable detergent because acidic conditions would cleave it into products that will not interfere with mass spectrometry results downstream. The resulting peptides were then separated by 2D liquid chromatography composed of a strong cation exchange and reverse phase high performance liquid chromatography using microcapillary columns followed in-line by tandem mass spectrometry as previously described (i.e. MudPIT (Chen et al., 2006)). Utilizing three of the distinct S5 microvessel membrane fractionation samples, independent mass spectrometry runs enabled the identification of a total of 1,645 microvessel proteins, i.e. BBB-associated proteins. The standards and settings used for data acquisition (Taylor et al., 2007) (i.e. MIAPE data) for these studies are found in Supplementary Table 1 along with a complete list of the proteins and their spectral counts from all mass spectrometry runs.

Mass spectrometry is a sampling technique by which probability of detection is a function of protein abundance. By counting the numbers of spectra that map to identified proteins, spectral counting can be used as a surrogate for relative protein abundance (Liu et al., 2004). The criteria used for protein inclusion for the study was that proteins must be identified by MudPIT in 3 technical replicates (i.e. the same sample analyzed at 3 different times; 153-1, 153-2, and 153-3), all of which are considered as a single biological sample, then in an additional 2 independent biological samples (118 and 153). Moreover, the average of the spectral counts from the 3 technical replicates and the 2 biological samples must be ≥5 (Figure 2 and Supplementary Table 1). However, this should not undervalue the biological relevance of the less abundantly identified proteins (mean spectral counts <5) from our study. Mean spectral counts is just an objective standard to be sure that the proteins are actually present and sufficiently represented. In some cases, proteins

were found in the technical replicates, but not in the biological replicates, as well as the converse (Supplementary Table 1). Each protein sample, 118, 153, and 155, was extracted from isolated, pooled microvessels obtained from different mice.

The first determine the intra-sample variation of proteins identified by MudPIT, three samples from the same S5 microvessel fraction preparation were analyzed (i.e. technical replicates), then the distribution of proteins identified were compared (Figure 2A). For the technical replicates, we found 1,355 proteins (74% of total proteins) common to all three samples, with 247 proteins unique to replicate 153-1, 160 proteins to sample 153-2, and 121 proteins to sample 153-3 (Figure 2A). The distribution of proteins common to any 2 samples was found to be 102 proteins between 153.1 and 153.2, 93 proteins between 153.2 and 153.3, and 164 proteins between 153.1 and 153.3. Thus, a significant degree of protein overlap, 74%, exists between each replicate from the same starting microvessel preparation.

Next, we compared the distribution of proteins identified between the three different S5 samples, where each sample was from pooled tissue of six independent mice (Figure 2B). 1,143 proteins (69% of total proteins) were common to all three samples, whereas 73 proteins were unique to sample 118, 247 proteins to sample 153, and 150 proteins to sample 155. The distribution of proteins common to any two samples was found to be 67 proteins between 118 and 153, 249 proteins between 153 and 155, and 58 proteins between 155 and 118. As assessed with the technical replicates of 153, a significant portion of the proteins identified (69%) was common to all three independent samples and was only slightly less than that identified (74%) from the technical replicates. Moreover, a scatter plot comparison of the proteins identified following the parallel analyses of replicate samples established the degree of overlap in an analysis of intra-sample variation (Figure 2C).

Lastly, Figure2D, a summary of the bioinformatic analysis of the BBB proteins identified from the 3 samples obtained from different groups of mice (Figure 2B), provided insight as to the number of membrane proteins recovered (53%), as well as mitochondrial (15%), and cell junction proteins (5%) recovered. A complete listing of all proteins identified is found in Supplementary Table 1 and the proteins are grouped in Tables 1-4 based on previously published reports and a classical understanding of their biological function.

3.3 Membrane Transporter and Channel Proteins

The BBB is characterized by the expression of a complex range of solute carrier proteins (SLC), ATP-binding cassette proteins (ABC), and voltage gated channel proteins that are essential for normal function of the brain, i.e. import of nutrients and drugs and export of metabolites and toxins across the endothelium. SLC/ABC transporters were ranked based on their number of spectral counts, which can be used for relative quantification between identified proteins. We identified 84 SLC/ABC transmembrane proteins by MudPIT, with proteins having a spectral count of <5 peptides indicated in italics below the dashed line. All of the detailed supporting spectral count data are provided in Supplementary Table 1. Of these microvessel-derived membrane proteins identified, we noted that 21 of these proteins (i.e. Slc25a4, Abcb1a, Slc12a5, Slc3a2, Slc2a1, Slc1a6, Slc12a2, Slc6a1, Slc38a3, Abcc4, Slc9a3r2, Slc16a1, Slc2a3, Slc9a3r1, Abcd3, Slc17a7, Slc30a1, Slc27a1, Asna1, Abcg2, and Slc7a1) were identified in an earlier study based on mRNA expression profiling in rat brain microvessels (Enerson and Drewes, 2006). An additional 13 SLC/ABC proteins (i.e. Slc9a1, Abca7, Abcb8, Abcc9, Slc25a10, Slc5a6, Slc25a20, Slc4a3, Abcb6, Abca2, Slc6a20, Abcc8, and Slc38a2) were detected in mouse

microvessels with a spectral count of <5 that were also present at the mRNA level in rat microvessels (Enerson and Drewes, 2006). Moreover, 5 out of 6 ABC proteins recently quantified in a study of human BBB transporters (Uchida et al., 2011) were also identified in our study, some with spectral counts ≥ 5 (i.e. Abcb1a, Abcc4, and Abcg2) and others <5 spectral counts (i.e. Abca2 and Abcc8). In a similar comparison, 7 out of 10 SLC proteins had spectral counts ≥ 5 (i.e. Slc1a3, Slc3a2, Slc2a1, Slc2a3, Slc16a1, and Slc7a1), while Slc7a5 had a spectral count <5 (See Table 1 and Supplementary Table 1). An additional 36 transmembrane proteins identified by MudPIT in our study were also detected at the mRNA level from isolated mouse endothelial cells (i.e. Abcb1a, Slc3a2, Slc2a1, Slc38a3, Abcc4, Slc9a3r2, Slc16a1, Slc6a17, Slc25a24, Slc25a25, Slc30a1, Slc1a1, Abcg2, Slc7a1, Slc44a1, Slc25a20, Slc39a10, Slc44a2, Slc12a7, Slc22a8, Slc16a2, Slc7a5, Atp7a, Slc38a2, and Slc7a3; See Table 1, single asterisk), pericytes, (i.e. Atp1a2, Atp1b2, Slc12a2, Atp2a3, Atp13a5, Abcc9, and Abca9; See Table 1, double asterisk), and astrocytes (i.e. Atp1a2, Slc1a2, Slc4a4, Slc25a18, Slc39a12; See Table 1, triple asterisk) (Cahoy et al., 2008; Daneman et al., 2010). Prototypic examples of BBB proteins in the endothelium, such as Abcb1a (i.e. PgP), insulin receptor (INSR), the transferrin receptor (Tfrc) and □2 macroglobulin receptor (Lrp1), were detected among the top 50 proteins in our MudPIT studies as well as from mRNA profiling of microvessels (Enerson and Drewes, 2006), isolated endothelium (Daneman et al., 2010), and human microvessel studies (Uchida et al., 2011). Table 1 provides a listing of the 101 transmembrane SLC/ABC and voltage gated channel proteins identified by MudPIT with relevant references to other complementary profiling studies. Additional SLC/ABC and voltage gated channel proteins are listed in Supplementary Data Table

1. About 15% of the genes at the blood-brain barrier encode for transporters and only about 50% of the transporters are known (Pardridge, 2003).

3.4 Tight Junction Proteins and Integrins

The physical integrity of the endothelial component of the BBB is generally defined by the expression of tight junction proteins, therefore, we examined their relative abundance following MudPIT of mouse brain microvessels (Table 2). In our analyses, 25 tight junction proteins were identified with a spectral count ≥5 (Table 2A), including Pecam1 (i.e. CD31), occludin, five catenins (Types α1, α2, β1, δ1, and δ2) and claudin (Type 11). An additional 8 tight junction proteins were identified including Vcam1, Jam 2, and claudin 5, although having limited representation among recovered sequences (i.e. <5 spectral counts). Cytoplasmic tight junction adapter proteins were also found (9 protein hits with ≥5 spectral counts; Table 2B) and included cadherins (Types 2 and 13), Esam1, F11r, and Tjp1 and Tjp2 as well as 15 proteins with low representation (Table 2B). In addition to the tight junction proteins, 7 integrins were identified (α1, α2b, α3, α6, α7, αv, and β1), with an additional 7 integrins detected with low recovery (α2, α 5, αm, β2, β3, β5, and β8; Supplementary Table 1). These findings provide a resource for the further analysis of cell-cell and cell-ECM mediators expressed in the membrane fraction of brain microvessels.

3.5 ECM and Basal Lamina Proteins

To better characterize the ECM microenvironment and basal lamina proteins, we examined the MudPIT proteomic profile from microvessels. We identified 24 ECM proteins including tenascin-R, fibrinogen β chain, 6 laminins (types α1, α2, α4, β1, β2, and γ1), and 5 proteoglycans (agrin, brevican, dystroglycan, perlecan, and versican).

In addition, the neuronal associated proteins contactin (Types 1 and 2), and neural cell adhesion molecule L1 were detected. While only collagen IV α1 and α2, were detected with spectral counts ≥5, several additional collagens (types Iα2, IVα3, VIα1, XIIα1, XVα1, and XVIIIα1) were also detected with low spectral abundance. In combination our findings provide a more complete resource of the relevant ECM proteins present in brain microvessel microenvironment than has been previously reported.

3.6 BBB-specific Cell Types

The analysis of microvessel proteome included the identification of proteins associated with endothelial cells and their associated astrocytes and pericytes. A total of 24 proteins were associated with endothelial cells based on previously published studies of the RNA expression in isolated cells (Daneman et al., 2010). Of these the ABC transporter Abcb1a was the most abundant, along with several SLC proteins (Slc2a1, Slc1a1; see See Table 1), von Willebrand factor-related proteins (Vwf and Vwa1, See Table 4A), as well as CD31 and Occludin (Pecam1 and Ocln, See Table 2A). A total of 31 endothelial proteins were identified (Table 4A), in addition to the 36 transmembrane endothelial transporter/channel proteins annotated in Table 1. VEGF receptors (Flt1 and Kdr), were also detected, although below the 5 spectral count threshold. Also present were the prototypic astroycte markers such as GFAP and Aqp4, as well as the more recently characterized astrocyte marker, Aldh1L1. Similarly, recovery of pericyte markers such as Slc1a2, Slc4a4, and laminin α2 (Table 3) indicates that the membrane fractionation of microvessels recovers both transmembrane proteins as well as associated ECM proteins.

DISCUSSION

In this study we validated a combination of brain microvessel isolation, membrane fractionation, proteolytic digestion, liquid chromatography, mass spectrometry and bioinformatic techniques to identify and catalog the protein expression profile in the BBB. The specific strategy enabled the profiling of transmembrane and membrane-associated markers of the BBB at the protein level (Kamiie et al., 2008; Ohtsuki and Terasaki, 2007). We focused on the identification of the canonical classes of membrane-associated BBB proteins that are associated with solute transport functions and normal brain physiology (e.g. SLC/ABC transporters and voltage gated channel proteins), tight junction proteins maintaining integrity (i.e. the transmembrane proteins and associated cytoplasmic adapters) and basal lamina extracellular proteins that constitute the ECM microenvironment and indirect intercellular contacts (i.e. integrin mediated interactions with the basal lamina) (Hawkins and Davis 2005). For the ECM proteins in particular, we were interested in an approach to identify basal lamina proteins from intact microvessels to provide the most physiologically relevant *in vivo* profile, in contrast to *in vitro* assays where cell culture has the potential to introduce artifacts with regard to ECM protein expression.

The intent of our studies was to generate a BBB protein database utilizing MudPIT, which provides a reference for identification of BBB membrane proteins, ECM, and basal lamina. Membrane fractionation of the microvessels followed by a urea-assisted, acid-labile, surfactant-mediated protease digestion was used to identify: 1) the most abundant proteins (i.e. a standard of comparison for proteomic analysis and a measure of contaminants from other cellular compartments); 2) the profile of classical transmembrane transport proteins; and 3) the profile of tight

junction and ECM proteins associated with microvessels (i.e. a measure of proteins that define the physical barrier properties of the NVU (Wolburg et al., 2009b)).

Previous studies by Enerson and Drewes examined the mRNA expression of isolated rat microvessels and validated the techniques to isolate intact fresh microvessels (Enerson and Drewes, 2006). We utilized a similar isolation strategy as described by several laboratories to isolate BBB components, then interrogated which proteins were associated with the BBB membrane fraction utilizing MudPIT. We annotated our proteomic findings for comparison with mRNA expression profiling of SLC/ABC transporters (Table 1), tight junction proteins (Table 2), and endothelial genes (Table 4A) leading to the observation that as expected, many of the genes expressed at the mRNA level in rat brain were also expressed in membrane protein-focused proteomic profiling. For example, 62% of the SLC/ABC transporters expressed at the RNA level by Enerson and Drewes were also detected in our proteomic study. Although a total of 217 SLC/ABC transporters and voltage gated channel proteins were detected by our MudPIT approach, only 58% of these proteins satisfied our selection threshold for identity in 3 different biological samples and with the average spectral count $\geq$5. Although additional membrane transporters were identified, further investigation will be necessary to validate the expression and biological relevance of the less abundant proteins that did not meet the stringent spectral count cutoff criteria. We have compiled a complete listing of all peptides identified with accompanying spectral data (Supplementary Table 1). Similarly, 53% of the tight junction proteins identified by Enerson and Drewes were also detected by MudPIT, while an additional 21 tight junction proteins/adapters (Daneman et al., 2010) were identified along with 7 integrins that have not been previously identified through microvessel proteomics. Tables 1-4 are further annotated with gene expression data

based on protein (Agarwal et al., 2009; Cayrol et al., 2008; Cunnea et al., 2010; Krishna and Redies, 2009; Li et al., 2009; Lu et al., 2008b; Ohtsuki and Terasaki, 2007; Pottiez et al., 2009b; Yousif et al., 2007) and mRNA (Cahoy et al., 2008; Daneman et al., 2010; Enerson and Drewes, 2006) detection strategies. A recent quantitative targeting proteomics strategy, reported as sensitive to the fmol range, for human blood-brain transporters and receptors yielded a similar ABC/SLC transporter profile, with 5 of 6 ABC proteins and 7 of 10 SLC proteins identified by MudPIT present in the reported human study (Uchida et al., 2011). Interestingly, Uchida et. al. compared expression levels of ABC transporters between human and mouse microvessel and determined that Abca8, which was not detected in our study, and Abca2, which had a spectral count <5, were present in their analyses at relatively low concentrations in mouse microvessels. Thus, it seems that our findings compare favorably with findings by Uchida et. al. (Uchida et al., 2011) consistent with a high degree of protein detection sensitivity in our studies.

The recent mRNA gene profiling report (Daneman et al., 2010) on isolated endothelial cells, pericytes and astrocytes provided an opportunity to compare and annotate our protein-based findings. We observed that by focusing on the membrane fraction for proteomic analyses we were able to obtain an unexpectedly large number of SLC/ABC transporters present in microvessels, of which the mRNA expression of specific family members of transporters was similar, but not identical to that observed in isolated cells (Daneman et al., 2010). For example, 5 of the 6 transporters Apcdd1, Abcb1a, Slco1a4, Slc22a8, Slc7a5, but not Slc01c1 were highly expressed at the mRNA level by Daneman et al.,. (Daneman et al., 2010) and were also identified by proteomics, although with low spectral counts. Similarly, while we obtained a large number of transporters as identified by RNA-based expression studies, the exact

expression profile of transporters varied. We recognized the inherent difficulty of protein isolation from complex tissue sources and identification of low abundance proteins, as compared to RNA transcript analysis of low abundance mRNAs. However, the identification of proteins with low spectral counts provides a starting point for further studies. Most importantly, the further understanding of the interdependent roles of the ~120 transporters recovered with the most abundant spectral counts will provide insight into BBB integrity and function.

Interestingly, among the most abundant transmembrane transporter/channel proteins was Atp1a2, whose gene expression was detected in both isolated pericytes (Daneman et al., 2010) and astrocytes (Cahoy et al., 2008). The expression of other pericyte markers such as PDGFRβ was low, or in the case of CD13 and NG2, not represented in the proteomic database generated herein. Expression profiling is another complementary technique, which has been used by Shusta and colleagues to characterize membrane BBB proteins using expression cloning (Agarwal et al., 2009; Agarwal and Shusta 2009). Other *in vitro* proteomic screening studies have focused on triton-soluble proteins (Pottiez et al., 2009b) and proteins lipid membrane rafts in cultured human endothelial cells where Alcam, AHNAK (desmoyokin), and intracellular trafficking proteins (clathrin light chain and Cav-1) were identified (Cayrol et al., 2008). *In vivo* proteomic analysis of integral membrane proteins with colloidal silica recovery technique also identified Cav-1, GPR116, G αq, G α12, Flot-2, Fyn, ADAM10, and contactin-1 (Li *et al.,* 2009). Several of the proteins identified with these complementary approaches have also been identified in our study and are annotated in Table 4A. In combination, these findings underscore that our MudPIT-based approach for microvessel protein identification is useful for high coverage of

membrane proteins and identification of physiologically relevant proteins on specific BBB cell types (Pottiez et al., 2009a).

While transcriptome profiling provides a standard from which to assess mRNA expression levels in microvessels or isolated primary cells, the generation and characterization of a BBB gene expression profile at the protein level is essential for comparative purposes. Therefore, developing techniques to better analyze unknown constituents of the BBB proteome is essential as shown by the laser capture microdissection (LCM) of microvessels from mouse brain slices using cryopreservation, fixation, and immunostaining followed by gel electrophoresis and then mass spectrometry for protein identification (Lu et al., 2008b). In a comparison with our MudPIT strategy of utilizing fresh intact microvessels, 58% of the BBB-enriched/endothelial proteins identified by LCM/gel electrophoresis were also evident in our studies as indicated in Tables 1-4. Quantification of the relative abundance of known membrane transporters from human and mouse microvessels (Uchida et al., 2011), along with our results identifying proteins demonstrates that a MudPIT approach is highly appropriate for proteomic identification from isolated BBB membranes and provides increased protein identification coverage. Each spectral count is a selected peptide precursor ion selected for fragmentation that is subsequently assigned for protein identification. For spectral counts between 5 and 500, abundance is linearly proportionate to spectral count (Collier et al., 2010; Cooper et al., 2010; Liu et al., 2004). Therefore, while there are limitations with relying exclusively on spectral counts for relative quantitation, once protein identifications have been made using a procedure such as the MudPIT, other techniques can be deployed to quantify known proteins (Uchida et al., 2011). The identification of ECM proteins and transmembrane integrins in our study using freshly isolated tissue

provides a profile of the membranes in the contact with the extracellular microenvironment is not influenced by potential tissue culture induced artifacts (McCarty 2009). While many ECM proteins were identified by MudPIT (i.e. six different specific laminin subtypes and five different proteoglycans), the mRNA encoding these and other ECM proteins appeared to be under-represented in transcriptome studies, suggesting the possibility that ECM proteins with a long half-life may help explain the low abundance of their coding mRNAs. Therefore, to better understand the ECM microenvironment in the BBB, a MudPIT strategy provided the most complete protein expression profile to date of ECM proteins.

In contrast to classical 2D isoelectric focusing/SDS-PAGE, where solubilization and resolution of hydrophobic proteins is limited, our solubilization and enzymatic fragmentation yielded experimental material sufficient for a relatively high content analyses of a large number of peptide fragments. This was due, in part, to the use of: 1) a cell membrane lysis approach that minimized nuclear lysis; and 2) a relaxation buffer to better unfold membranes (Borregaard et al., 1983) prior to lysis and centrifugal fractionation; and 3) use of urea as a solubilizing agent and ProteaseMAX acid-labile surfactant to increase the efficiency of tryptic digestion. Similar approaches applied to the analysis of membrane proteins in yeast, heart, and human parotid exosomes have led to the identification of high content membrane protein data sets (Gonzalez-Begne et al., 2009; Lu et al., 2008a; Lu et al., 2009; Washburn et al., 2001). As with most sensitive analytical tools such as MudPIT, an important consideration is the purity of the starting material (i.e. microvessels vs. other cell types) and the quality of the membrane fractionation (i.e. the yield of membrane proteins). Therefore, we have relied on validation techniques consistent with DeCleves and colleagues (Yousif et al., 2007) and our own immunoblotting of

starting microvessel material to validate the expression of membrane proteins, enrichment of endothelium/astrocyte endfeet and a decrease in neuronal proteins.

In a comparison of the proteins identified in this study of mouse brain blood vessels by MudPIT vs. RNA gene profiling and immuohiostochemistry, it remains a challenge to determine how source, isolation, and analytical techniques may influence the conclusions (Uchida et al., 2007). For example, in the study of the BBB, expression of claudin 5 and cadherin 11 are widely described (Hawkins and Davis, 2005; Nitta et al., 2003), and yet neither was a major component of the mass spectrometry spectral counts analyzed. In contrast, cadherins 1 and 2 and cadherin 11 predominated in our analysis suggesting that if extraction techniques affect different members of the same family, then such differences in apparent abundance may have other unknown explanations. These differences may reflect the limitations recovery techniques, the source of the lysate (i.e. heterogeneity of brain microvessels), the post-translational status, ex vivo proteolytic activity, and the possibility that other tight junction proteins may deserve closer study in terms of the relative abundance and physiological relevance. For example, a recent *in situ* mRNA study of blood vessel cadherins in developing ferret brains indicated that while many cadherins were expressed in development, surprisingly no mRNA was detected in adult brain capillaries solubilization. This finding further supports the need to characterize BBB components at the protein level (Krishna and Redies, 2009).

It has become increasingly clear that a better understanding of the BBB requires a more comprehensive knowledge of the protein constituents of this important biological barrier (Czeisler and Janigro, 2006; Neuwelt et al., 2008; Pardridge, 2010; Soni et al., 2010). In our study, we have utilized MudPIT on fresh unfixed microvessels to provide a comprehensive database resource for membrane

transporter, tight junction and ECM proteins of the BBB. Our microvessel-based analysis of proteome provides a novel bioinformatic resource to help place into perspective transcriptome and proteomic findings from intact microvessels and isolated cells of the BBB.

FIGURES

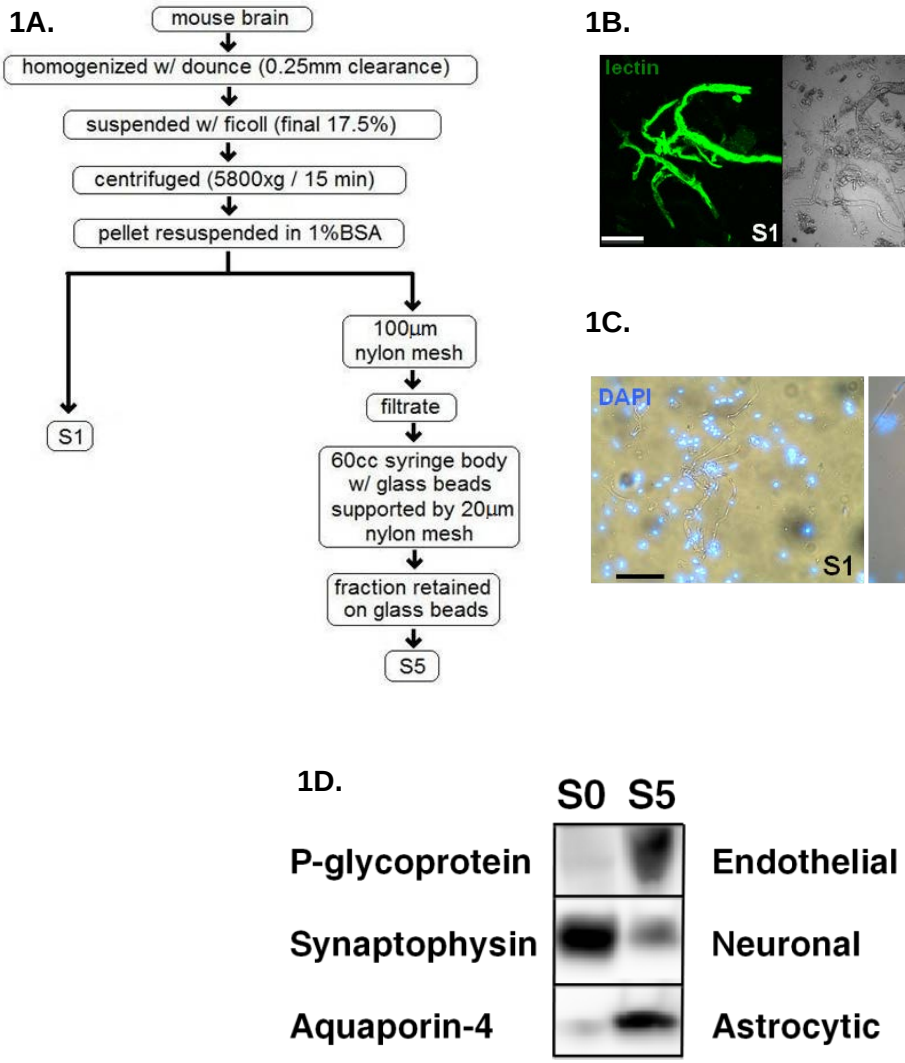
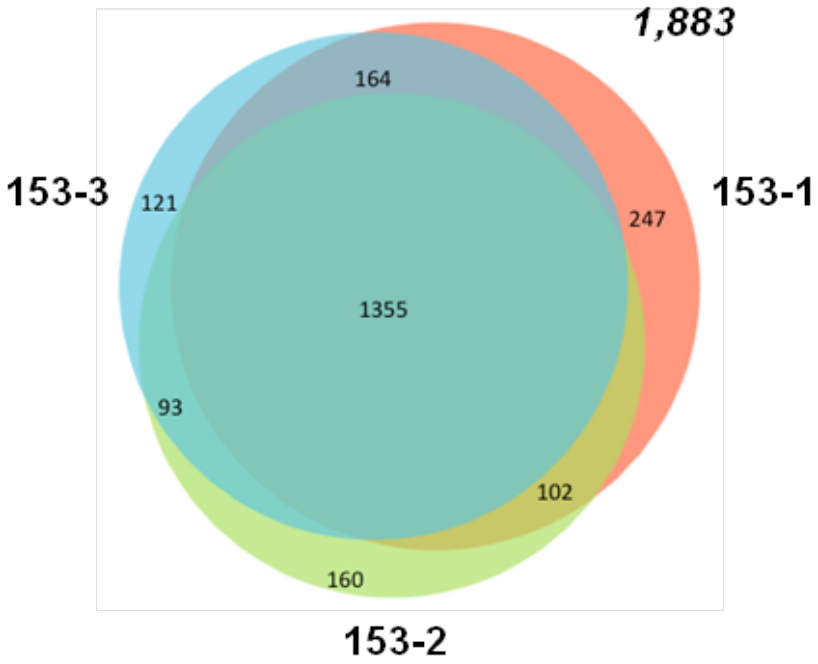


Figure 1. Scheme of brain microvessel enrichment (A) Flow chart of microvessel enrichment procedure where S_0 is whole brain lysate, S1 is brain pellet after ficoll centrifugation and S5 is obtained from purified microvessels. (B) Confocal imaging of brain microvessels following mouse intravenous injection with FITC-lectin followed by microvessel extraction and isolation. Bar = 50 microns. (C) Fluorescent and phase imaging of DAPI-stained nuclei from S1 vs. S5 microvessel fractions. (D) Immunoblotting of S0 vs. S5 fractions with anti-P-glycoprotein (Pgp), anti-synaptophysin (Syn), or anti-aquaporin-4 (Aqp4) antibodies.

Figure 2. **Information on proteins identified by MudPIT from technical/biological replicates from the S5 microvessel fraction samples.** (A) Shown in a Venn diagram are the numbers of proteins identified by MudPIT analyses common to or distinct from each other in three technical replicates of the S5 microvessel fraction, 153-1, 153-2, and 153-3. Three single samples were prepared and then stored individually, and then analyzed independently by MudPIT. Inclusion criteria for the 1355 proteins common to all three replicates were ≥ 5 spectral counts and common identity to all three replicates, with 1,883 proteins (common + unique proteins) identified from all samples. Individual protein outliers correspond to 247 (153-1), 160 (153-2), and 121 (153-3) proteins from each replicate. Supplementary Table 1 contains the complete listing of all proteins identified and number of spectra from each replicate and all S5 microvessel fraction samples. See Materials and Methods for information on mass spectrometry and bioinformatic analyses. (B) A Venn diagram shows the numbers of proteins common to or distinct from each other in three biological replicates of the S5 microvessel fraction, 118, 154, and 153 (proteins common to 153-1, 153-2, and 153-3). Each S5 microvessel fraction sample was prepared as an individual sample prior to analyses. The criteria used for inclusion of proteins common to, 1149, or distinct from each sample, 78 (118), 150 (154) and 274 (153) were as discussed in A., 1,645 proteins (common + unique proteins) were identified from all samples (C) A comparison of the average of all spectral counts obtained from all mass spectrometry runs was compared to individual spectral counts obtained from each mass spectrometry run. The log scale regression plot presented the average of all spectral counts for all microvessel membrane fraction 5 analyses as compared to the spectral counts for individual analyses. The legend is on the plot for each technological replicate, 1A, 1B, and 1C, and the two biological replicates, 2 and 3. $R^2 = 0.98624$. (D) The cellular location of proteins identified from microvessel fractions, with numbers of proteins given after the category in the bar chart, for a given subcellular location relative to the total number of location-annotated Uniprot IDs for all five MudPIT analyses of the S5 membrane factions. For each identified protein the International Protein Index (IPI) (Kersey *et al.,* 2004) identifiers were first mapped to Uniprot identifiers (IDs). The Uniprot Knowledgebase was then used to correlate IDs to subcellular location. Membrane refers to all proteins identified that can be designated as a membrane protein. The percentages do not add to 100%, as many proteins have more than one subcellular location. For additional information please see Material and Methods.

2A.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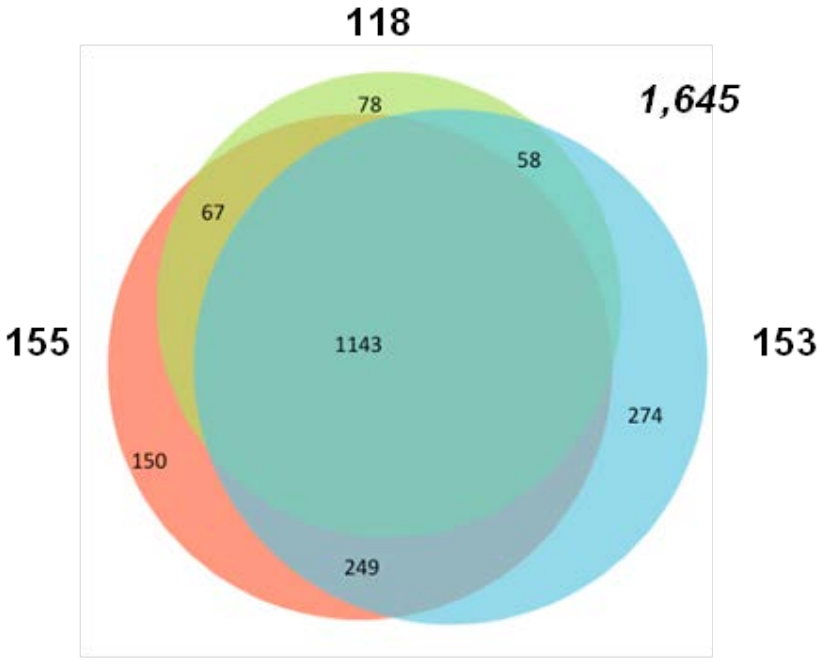
164
153-3
121
247
153-1
1355
93
102
160
153-2

2B.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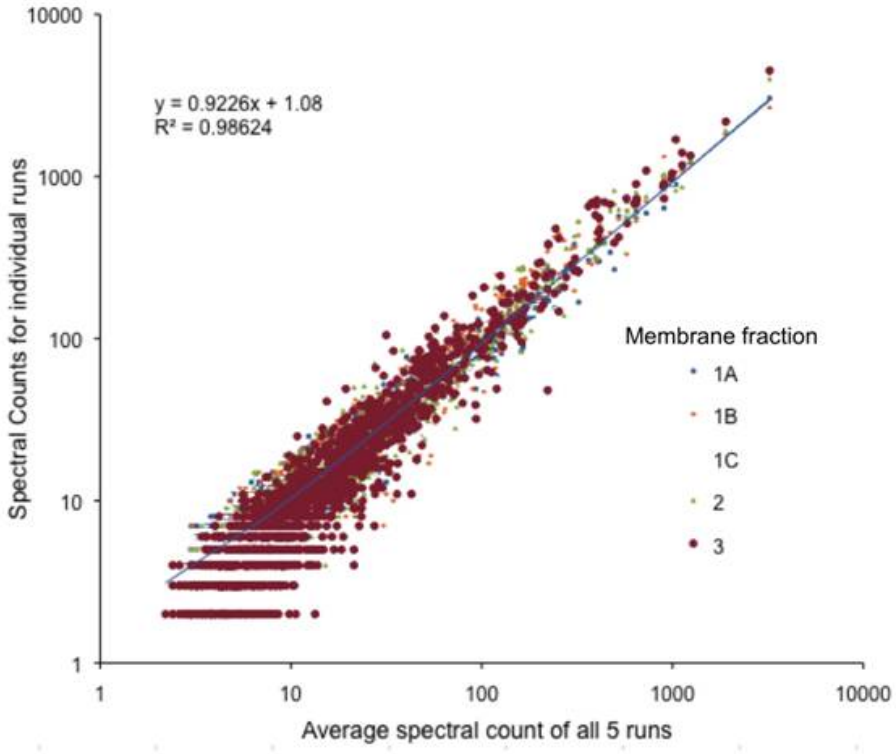
78
1,645
58
67
155
1143
153
274
150
249

2C.



2D.

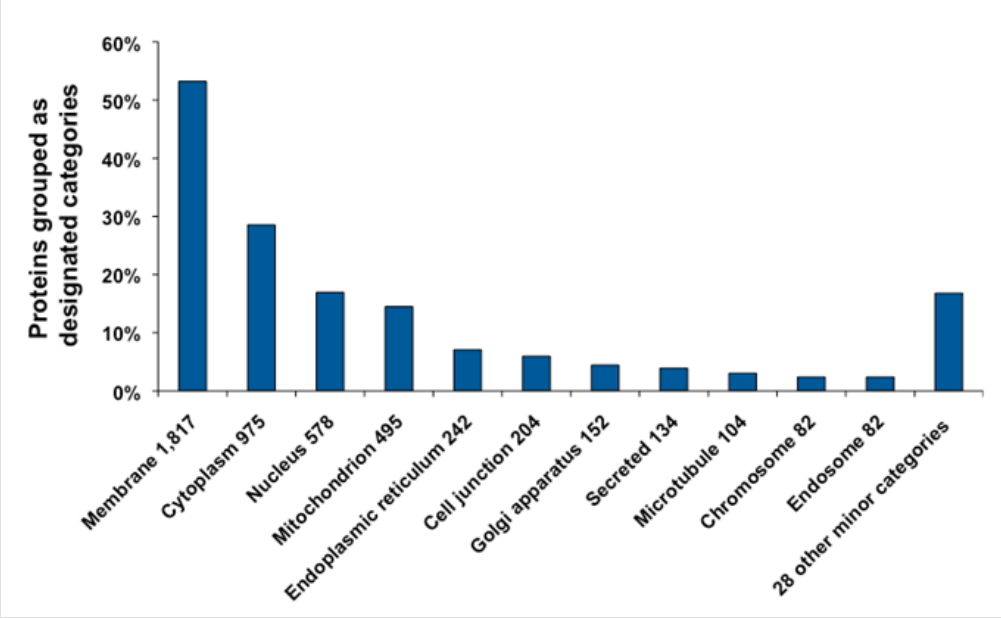


Figure 2. continued.

TABLES

Table 1. Transporters and Channel Proteins

Protein	Gene	Mean	S.D.	Ref
IPI00752412	Atp1a3	1954.7	211.5	3
IPI00420569	Atp1a2	1249.7	99.1	2**, 5***
IPI00311682	Atp1a1	1135.0	79.9	
IPI00468481	Atp5b	1033.0	318.0	
IPI00130280	Atp5a1	849.0	158.4	
IPI00378485	Atp1a4	639.7	48.0	
IPI00115564	Slc25a4	568.0	50.5	1
IPI00875419	Slc1a2	500.0	110.0	5***
IPI00127841	Slc25a5	397.3	11.9	
IPI00857092	Slc4a4	211.0	13.1	5***
IPI00308162	Slc25a12	209.0	53.7	
IPI00114279	Slc1a3	208.3	35.3	7
IPI00121550	Atp1b1	184.3	46.2	
IPI00119113	Atp6v1b2	178.7	35.0	
IPI00831180	Atp2b2	175.0	16.1	
IPI00313475	Atp5c1	166.3	53.3	
IPI00553834	Abcb1a	150.0	46.7	1,2*,4,6,7
IPI00556827	Atp2b1	140.7	19.8	
IPI00407692	Atp6v1a	130.7	29.7	
IPI00341282	Atp5f1	121.3	35.0	
IPI00407499	Abat	118.0	41.6	
IPI00338964	Atp2a2	118.0	18.7	3
IPI00828950	Atp6v0a1	113.0	19.3	
IPI00751474	Atp2b4	107.7	28.9	
IPI00265299	Atp2b3	107.0	18.0	
IPI00877254	Slc12a5	91.0	6.1	1
IPI00124771	Slc25a3	88.3	8.7	3
IPI00109275	Slc25a22	79.7	16.3	
IPI00114641	Slc3a2	75.3	15.0	1,2*,6,7
IPI00313841	Atp6v0d1	69.7	23.7	
IPI00230507	Atp5h	58.7	5.0	
IPI00230680	Atp4a	56.3	8.1	6
IPI00118986	Atp5o	56.0	9.2	
IPI00315999	Atp6v1f	52.7	7.4	
IPI00123704	Atp1b2	51.0	14.9	2**
IPI00230754	Slc25a11	49.3	10.1	
IPI00119115	Atp6v1e1	49.3	5.5	
IPI00752501	Slc4a10	42.0	5.0	
IPI00120761	Slc4a1	39.0	9.2	3
IPI00311654	Atp2a1	32.0	27.9	
IPI00308691	Slc2a1	29.7	4.5	1,2*,4,6,7
IPI00626793	Cacna2d1	26.3	5.9	
IPI00131666	Slc1a6	25.7	3.1	1
IPI00111770	Atp5k	25.0	7.8	

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
4-Yousif et al., 2007
5-Cahoy et al., 2008
6-Kamiie et al., 2008
7-Uchida et al., 2011
8-Armulik et al., 2010

*endothelial
**pericyte
***astrocyte

Protein	Gene	Mean	S.D.	Ref
IPI00135324	Slc12a2	21.7	4.0	1,2**
IPI00875016	Slc25a18	18.7	2.3	5***
IPI00227928	Slc6a1	17.7	2.3	1
IPI00322156	Slc38a3	17.0	7.5	1,2*
IPI00111686	Abcc4	17.0	3.6	1, 2*,6,7
IPI00308063	Slc9a3r2	16.7	4.7	1,2*
IPI00828762	Abca1	15.7	5.1	7
IPI00311200	Atp2a3	12.7	2.5	2**
IPI00137194	Slc16a1	11.7	4.7	1,2*,6,7
IPI00134191	Slc2a3	11.3	2.1	1,7
IPI00109311	Slc9a3r1	11.3	1.5	1
IPI00553576	Abcd3	11.0	3.0	1
IPI00109153	Slc17a7	10.0	4.6	1
IPI00229554	Slc6a17	10.0	2.6	2*
IPI00468924	Slc25a24	9.3	5.5	2*
IPI00221921	CD9	8.0	6.6	7
IPI00265568	Slc25a25	7.3	1.5	2*
IPI00120166	Slc30a1	7.3	5.9	1,2*
IPI00420244	Slc1a1	7.0	3.6	2*
IPI00468691	Abcg2	6.7	3.2	1,2*,4,6,7
IPI00120097	Slc27a1	6.3	1.5	1
IPI00624501	Asna1	6.0	5.6	1
IPI00121634	Slc7a1	6.0	5.3	1,2*,7
IPI00122522	Ggt1	5.3	3.1	6*

1-Enerson and Drewes, 2006
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5-Cahoy et al., 2008
6-Kamiie et al., 2008
7-Uchida et al., 2011
8-Armulik et al., 2010

*endothelial
**pericyte
***astrocyte

Table 1. Continued

Protein	Gene	Mean	S.D.	Ref
IPI00225534	*Atp13a5*	*4.7*	*1.5*	*2***
IPI00622815	*Slc9a1*	*4.3*	*1.5*	*1*
IPI00125970	*Abca7*	*4.0*	*4.0*	*1,7*
IPI00459383	*Abcb8*	*4.0*	*2.0*	*1*
IPI00136334	*Abcc9*	*3.7*	*3.2*	*1,2**,8*
IPI00317074	*Slc25a10*	*3.7*	*2.1*	*1*
IPI00828826	*Slc44a1*	*3.7*	*1.5*	*2**
IPI00553414	*Slc5a6*	*3.3*	*2.9*	*1*
IPI00131584	*Slc25a20*	*3.0*	*1.7*	*1,2**
IPI00128358	*Insr*	*3.0*	*3.6*	*7*
IPI00858037	*Abca9*	*2.7*	*3.1*	*2***
IPI00273801	*Slc39a10*	*2.7*	*0.6*	*2**
IPI00750694	*Slc39a12*	*2.7*	*3.1*	*5****
IPI00169896	*Slc44a2*	*2.7*	*2.3*	*2**
IPI00470963	*Slc4a3*	*2.3*	*2.1*	*1*
IPI00120094	*Abcb6*	*2.0*	*1.7*	*1*
IPI00112616	*Abca2*	*1.7*	*1.5*	*1,7*
IPI00331175	*Slc12a7*	*1.7*	*1.5*	*2**
IPI00387413	*Slc22a8*	*1.7*	*1.5*	*2*,6*
IPI00742415	*Abca3*	*1.3*	*2.3*	*7*
IPI00353962	*Slc16a2*	*1.3*	*1.2*	*2**
IPI00331577	*Slc7a5*	*1.3*	*2.3*	*2*,6*
IPI00314205	*Slc6a20*	*1.0*	*1.7*	*1*
IPI00624726	*Abcc8*	*0.7*	*1.2*	*1,2,7*
IPI00830169	*Atp7a*	*0.7*	*1.2*	*2**
IPI00453817	*Slc38a2*	*0.7*	*1.2*	*1,2*,6*
IPI00109242	*Slc7a3*	*0.7*	*1.2*	*2**

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
4-Yousif et al., 2007
5-Cahoy et al., 2008
6-Kamiie et al., 2008
7-Uchida et al., 2011
8-Armulik et al., 2010

*endothelial
**pericyte
***astrocyte

Italics: Mean spectral count < 5

Table 1. Continued

Table 2A. Tight Junction Transmembrane Proteins

Protein	Gene	Mean	S.D.	Ref
IPI00122971	Ncam1	205	51	3
IPI00850457	Cadm2	42.7	9.1	
IPI00380273	Gja1	35.3	7	1
IPI00121378	Alcam	32.7	7.4	1
IPI00115762	L1cam	31.7	2.5	3
IPI00136135	Ctnnd2	22.3	3.8	
IPI00395042	Nrcam	21.7	4.2	1
IPI00127556	Ncam2	21.7	2.5	
IPI00471176	Hepacam	21.3	8.5	
IPI00856723	Cadm1	19.3	7.1	
IPI00857780	Cadm3	19	6.1	
IPI00877299	Icam5	18	3.6	1
IPI00229475	Jup	17	1	1,3
IPI00473693	Pkp4	16.7	5	1
IPI00749860	Cdh2	14.3	4	2
IPI00875877	CD47	10.7	1.2	
IPI00153840	Cadm4	9.7	4.9	
IPI00406901	Pecam1	8	3.5	
IPI00120295	Cldn11	7.7	1.2	1,3
IPI00154057	Pcdh1	6.7	1.5	5
IPI00117828	*Ocln*	*4.3*	*1.5*	*2,6*
IPI00775975	*Cdh13*	*4.3*	*1.2*	*1,2*
IPI00117424	*Icam2*	*3.3*	*1.5*	*1,2,6*
IPI00410802	*CD44*	*3*	*1*	*4,5*
IPI00111902	*Gjb6*	*2.3*	*2.1*	*4*
IPI00138180	*Cdh5*	*2.3*	*2.1*	*1,2,5,6*
IPI00138190	*Cdh11*	*2*	*2*	*1,2,5*
IPI00755700	*Pcdh9*	*2*	*2*	*5*
IPI00469123	*Mcam*	*1.7*	*1.5*	*1,4*
IPI00848632	*Pcdh10*	*1.3*	*2.3*	*5*
IPI00122973	*Icam1*	*1.3*	*1.2*	*6*
IPI00356667	*Pcdh17*	*1.3*	*1.2*	*5*
IPI00119893	*Cldn5*	*1*	*1.7*	*1,2*
IPI00346482	*Cdh10*	*1*	*1.7*	*2*
IPI00775835	*Cdh6*	*1*	*1.7*	*2,5*
IPI00109330	*Cdh15*	*0.7*	*1.2*	*2*
IPI00622727	*Jam2*	*0.7*	*1.2*	*2*
IPI00653571	*Vcam1*	*0.7*	*1.2*	*4,6*

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
4-Yousif et al., 2007
5-Cahoy et al., 2008
6-Kamiie et al., 2008
7-Uchida et al., 2011
8-Armulik et al., 2010

Italics: Mean spectral count < 5

Table 2B. Tight Junction Cytoplasmic Adapters

Protein	Gene	Mean	S.D.	Ref
IPI00125899	Ctnnb1	55	4.4	2,4
IPI00119870	Ctnna2	49	3	
IPI00112963	Ctnna1	43.3	7.6	
IPI00874522	Tjp1	24.3	10	1,2,3
IPI00125861	Dlg1	20	3	2
IPI00752108	Ctnnd1	16.7	4.2	
IPI00126827	Esam1	9.7	5.5	1,2
IPI00136498	Lin7c	9	1.7	2
IPI00137706	Mpp1	8.7	3.1	2
IPI00124051	Mpp5	6	2	2
IPI00323349	Tjp2	6	2.6	1,2
IPI00330186	Dlgap4	5	1	2
IPI00121362	F11r	5	3	1,2
IPI00877180	*Cgnl1*	*3.3*	*1.5*	*2*
IPI00761693	*Mpp7*	*2*	*2*	*2*
IPI00129388	*Scrib*	*2*	*2*	*2*
IPI00399953	*Wnk1*	*1*	*1.7*	*2*
IPI00761515	*Magi3*	*0.7*	*1.2*	*2*
IPI00762889	*Tjp3*	*0.7*	*1.2*	*2*

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
4-Yousif et al., 2007
5-Cahoy et al., 2008
6-Kamiie et al., 2008
7-Uchida et al., 2011
8-Armulik et al., 2010

Italics: Mean spectral count < 5

Table 2C. Integrins

Protein	Gene	Mean	S.D.	Ref
IPI00132474	Itgb1	44.7	9.6	4
IPI00620873	Itga6	25.3	4.2	
IPI00466371	Itga1	22.3	6.4	4
IPI00877232	Itga2b	11.7	5.8	
IPI00466276	Itga7	11.3	1.5	
IPI00857195	Itgav	8.7	1.5	6
IPI00468674	Itga3	5.3	0.7	

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
4-Yousif et al., 2007
5-Cahoy et al., 2008
6-Kamiie et al., 2008
7-Uchida et al., 2011
8-Armulik et al., 2010

Table 3. Extracellular Matrix Proteins

Protein	Gene	Mean	S.D.	Ref
IPI00123058	Cntn1	125.0	16.5	8*
IPI00515360	Hspg2	60.3	44.0	
IPI00227126	Tnr	53.7	4.2	
IPI00854028	Cntnap1	46.0	14.8	
IPI00400016	Lamc1	43.0	36.4	
IPI00109612	Lamb2	33.0	24.6	
IPI00756745	Lama2	30.3	34.5	2**
IPI00648938	Agrn	26.7	20.4	
IPI00111793	Nid1	24.7	17.5	
IPI00676957	Lama5	24.0	23.6	
IPI00420554	Cntnap2	18.7	3.8	
IPI00620601	Astn1	16.7	0.6	
IPI00122273	Dag1	16.7	9.0	
IPI00113726	Lama1	13.3	7.4	
IPI00279079	Fgb	13.0	6.1	
IPI00119970	Cntn2	12.7	3.8	
IPI00338785	Lamb1	12.3	6.0	
IPI00223446	Lama4	12.0	5.3	
IPI00109588	Col4a1	11.7	15.3	
IPI00121038	Vcan	11.0	3.5	
IPI00338452	Col4a2	10.7	11.0	
IPI00719919	Nid2	10.0	9.2	
IPI00270915	Cntn3	8.3	3.5	
IPI00869394	Bcan	6.3	2.1	
IPI00115522	Fga	6.3	1.2	
IPI00113539	Fn1	6.3	5.5	
IPI00830749	Col6a3	5.0	5.6	
IPI00469123	*Mcam*	*1.7*	*1.5*	*5**
IPI00480306	*Cntn4*	*0.7*	*1.2*	5*
IPI00129240	*Vtn*	*0.7*	*1.2*	*2***

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
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5-Cahoy et al., 2008
6-Kamiie et al., 2008
7-Uchida et al., 2011
8-Armulik et al., 2010

*endothelial
**pericyte
***astrocyte

Italics: Mean spectral count < 5

Table 4A. Endothelial Proteins

Protein	Gene	Mean	S.D.	Ref
IPI00227299	Vim	191.3	63.0	3,5,8
IPI00115240	Mbp	75.3	28.4	1,3
IPI00119063	Lrp1	57.0	12.2	11
IPI00228618	Gnaq	37.3	0.6	7
IPI00553798	Ahnak	37.3	22.9	5
IPI00121378	Alcam	32.7	7.4	5
IPI00224776	Hspa12b	31.7	14.6	2
IPI00620256	Lmna	24.7	6.7	4
IPI00131138	Flna	24.0	6.9	8
IPI00313884	Podxl	23.0	1.0	4
IPI00124700	Tfrc	22.3	12.9	1,11
IPI00408495	Bsg	20.0	3.5	2,5
IPI00653398	Flot2	18.0	4.0	7
IPI00118569	Gna13	16.0	3.5	5
IPI00648927	Clta	14.3	2.5	5
IPI00311671	Nos3	13.0	2.6	6
IPI00130589	Sod1	12.7	4.7	6
IPI00134131	Scp2	12.3	1.5	4
IPI00114594	Rras	11.7	3.8	5
IPI00127942	Dstn	10.7	1.5	4
IPI00331609	Vwa1	10.7	6.0	2
IPI00762435	Fyn	10.3	2.3	7
IPI00117829	Cav1	9.7	5.0	5,7
IPI00129253	Ly75	8.0	3.0	2
IPI00131881	Adam10	7.7	4.9	7
IPI00278804	Scamp1	7.7	1.5	4
IPI00315280	Sema7a	6.7	0.6	2
IPI00120066	Prom1	6.3	1.5	2
IPI00133608	Ociad1	5.7	0.6	4
IPI00849927	Rpl10	5.7	4.0	4
IPI00113377	Rplp1	5.0	4.4	4

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
4-Agarwal et al. 2010
5-Cayrol et al., 2007
6-Cunnea et al., 2010
7-Li et al., 2009
8-Pottiez et al., 2009
9-Cahoy et al., 2008
10-Armulik et al., 2010
11-Uchida et al., 2011
12-Yousif et al., 2007

Protein	Gene	Mean	S.D.	Ref
IPI00338094	*Bmpr2*	*4.0*	*2.0*	*3*
IPI00762331	*Cobll1*	*4.0*	*3.6*	*2*
IPI00828826	*Slc44a1*	*3.7*	*1.5*	*2*
IPI00322245	*Fmo2*	*3.3*	*2.9*	*2*
IPI00222369	*Itih5*	*3.3*	*3.5*	*2*
IPI00111600	*Spock2*	*3.3*	*0.6*	*2*
IPI00321477	*Eng*	*3.0*	*2.6*	*2,3*
IPI00128358	*Insr*	*3.0*	*3.6*	*11*
IPI00129423	*Thbd*	*3.0*	*3.6*	*6*
IPI00798576	*Vwf*	*2.7*	*0.6*	*1*
IPI00876541	*Gpr116*	*2.3*	*2.5*	*2,7*
IPI00221547	*Tek*	*2.3*	*2.1*	*1*
IPI00458230	*Mfsd2*	*2.0*	*2.0*	*2*
IPI00131498	*Cd93*	*1.7*	*1.5*	*2*
IPI00467127	*Chid1*	*1.7*	*2.9*	*4*
IPI00625441	*Tpd52*	*1.7*	*1.5*	*2*
IPI00133257	*CD34*	*1.3*	*2.3*	*1*
IPI00124497	*Flt1*	*1.3*	*1.2*	*1,2,6*
IPI00230191	*Gna12*	*1.3*	*2.3*	*7*
IPI00123996	*Nrp1*	*1.3*	*2.3*	*7*
IPI00137172	*Ppapdc2*	*1.3*	*2.3*	*2*
IPI00226730	*Clic5*	*1.0*	*1.7*	*2*

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
4-Agarwal et al. 2010
5-Cayrol et al., 2007
6-Cunnea et al., 2010
7-Li et al., 2009
8-Pottiez et al., 2009
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11-Uchida et al., 2011
12-Yousif et al., 2007

Italics: Mean spectral count < 5

Table 4A. Continued

Table 4B. Astrocyte Proteins

Protein	Gene	Mean	S.D.	Ref
IPI00117042	Gfap	282.0	5.2	1,3,9,12
IPI00119458	Aldoc	66.3	5.7	9
IPI00230738	Aqp4	51.3	12.1	9
IPI00153317	Aldh1l1	17.0	6.9	9
IPI00453834	Acsbg1	16.0	4.0	9
IPI00131995	Hapln1	11.0	7.2	9
IPI00322760	Prodh	7.7	2.1	9
IPI00119130	1500005I02Rik	6.7	2.5	9
IPI00830222	*Mlc1*	*4.7*	*2.5*	*9*
IPI00118069	*F3*	*1.3*	*1.2*	*9*
IPI00329896	*Pla2g7*	*1.3*	*2.3*	*9*

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
4-Agarwal et al. 2010
5-Cayrol et al., 2007
6-Cunnea et al., 2010
7-Li et al., 2009
8-Pottiez et al., 2009
9-Cahoy et al., 2008
10-Armulik et al., 2010
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Table 4C. Pericyte Proteins

Protein	Gene	Mean	S.D.	Ref
IPI00117043	Acta2	133.3	116.4	1
IPI00416906	Gnas	33.3	2.5	10
IPI00134585	Enpep	31.0	12.8	2,10
IPI00756745	Lama2	30.3	34.5	2
IPI00113517	Ctsb	26.0	4.6	10
IPI00153202	Ace2	21.7	6.4	2
IPI00136716	Grm3	14.3	0.6	2
IPI00126186	Mrc1	12.0	9.2	10
IPI00133208	Hspa1a	6.0	10.4	10
IPI00344142	Lin7a	5.3	5.0	2
IPI00118880	Gucy1b3	5.0	1.0	2
IPI00128915	*Cspg4*	*4.3*	*1.5*	*2*
IPI00229516	*Itgb5*	*4.3*	*2.3*	*2*
IPI00121827	*Pdgfrb*	*2.7*	*1.2*	*2*
IPI00329896	*Pla2g7*	*1.3*	*2.3*	*2*
IPI00123125	*Xtrp3s1*	*1.0*	*1.7*	*2*
IPI00221980	*Pde8b*	*0.7*	*1.2*	*2,10*

1-Enerson and Drewes, 2006
2-Daneman et al., 2010
3-Lu et al., 2008
4-Agarwal et al. 2010
5-Cayrol et al., 2007
6-Cunnea et al., 2010
7-Li et al., 2009
8-Pottiez et al., 2009
9-Cahoy et al., 2008
10-Armulik et al., 2010
11-Uchida et al., 2011
12-Yousif et al., 2007

SUPPLEMENTARY TABLES

Supplementary Table 1. Complete listing of all proteins identified from the microvessel S5 fraction

IPI Identifier	Spectral Counts for 117-153-1	Spectral Counts for 117-153-2	Spectral Counts for 117-153-3	Spectral Counts for 117-155-1	Spectral Counts for 118-1	Total Spectral Counts (SC)	Median of All 5 Samples	Avg of all 5 SC	Tech Reps Standard Deviation (SD)	Tech Reps RSD	Biol Reps SD	Biol Reps RSD	Gene Name
IPI00273646.9	3035	2658	1943	3995	4494	16125	3035	3225.0	554.6	21.79%	1352.0	38.88%	RP23-403O15.4
IPI00752412.1	1789	1845	1762	1921	2181	9498	1845	1899.6	42.3	2.35%	211.5	10.82%	Atp1a3
IPI00420569.2	1222	1227	1148	1255	1346	6198	1227	1239.6	44.2	3.69%	99.1	7.93%	Atp1a2
IPI00468481.2	1137	1078	1043	1187	1175	5620	1137	1124.0	47.5	4.37%	79.9	7.04%	Atp1a1
IPI00648173.1	1145	1363	838	861	1400	5607	1145	1121.4	263.8	23.65%	318.0	30.79%	Atp5b
IPI00403810.2	892	1066	726	821	1690	5195	892	1039.0	170.0	19.00%	531.3	49.24%	Cltc
IPI00311682.5	954	1004	907	1069	1045	4979	1004	995.8	48.5	5.08%	87.4	8.68%	Tuba1a
IPI00110753.1	890	1062	906	1078	974	4910	974	982.0	95.0	9.97%	86.6	8.79%	Tuba1b
IPI00462072.3	638	1326	787	1029	731	4511	787	902.2	362.0	39.47%	158.4	18.65%	Atp5a1
IPI00117348.4	812	1024	801	973	900	4510	900	902.0	125.7	14.30%	86.3	9.69%	Tuba4a
IPI00117350.1	807	997	852	940	869	4465	869	893.0	99.3	11.21%	46.7	5.26%	Tuba1c
IPI00798592.1	593	702	503	753	1088	3639	702	727.8	99.7	16.63%	293.5	37.57%	Actb
IPI00378485.2	594	653	577	691	729	3244	653	648.8	39.9	6.56%	79.1	11.88%	Spna2
IPI00874964.1	562	703	694	579	683	3221	683	644.2	78.9	12.09%	63.5	9.73%	LOC100044223
IPI00130280.1	606	530	387	799	898	3220	606	644.0	111.2	21.90%	271.0	39.01%	ENSMUSG00000057666
IPI00850779.1	580	658	587	651	681	3157	651	631.4	43.2	7.09%	48.0	7.51%	Atp1a4
IPI00875419.1	570	619	576	614	514	2893	576	578.6	26.7	4.54%	50.5	8.89%	Slc25a4
IPI00114375.2	706	332	537	561	732	2868	561	573.6	187.3	35.67%	106.3	17.43%	Vdac1
IPI00110850.1	606	0	387	799	898	2690	606	538.0	306.9	92.71%	271.0	39.01%	LOC100040109
IPI00775863.1	568	544	451	626	423	2612	544	522.4	61.8	11.86%	110.0	22.00%	Slc1a2
IPI00169463.1	267	672	324	819	390	2472	390	494.4	219.2	52.07%	268.8	52.60%	Hist1h2bc
IPI00122549.1	340	451	277	615	674	2357	451	471.4	88.1	24.75%	214.2	41.04%	Gnb1
IPI00461514.4	390	421	298	398	694	2201	398	440.2	64.0	17.31%	205.9	44.44%	Tubb4

IPI00115564.5	0	0	648	1517	0	2165	0	433.0	374.1	173.21%	761.2	105.48%	Hist1h2ao
IPI00127841.3	434	405	362	412	468	2081	412	416.2	36.2	9.05%	53.0	12.81%	Spnb2
IPI00109073.5	382	502	407	384	401	2076	401	415.2	63.3	14.71%	11.9	3.00%	Slc25a5
IPI00120716.3	300	440	241	533	553	2067	440	413.4	102.2	31.26%	174.6	39.48%	Gnb2
IPI00319830.7	299	458	339	486	451	2033	451	406.6	82.7	22.64%	76.8	18.05%	Dpysl2
IPI00117352.1	368	305	231	387	714	2005	368	401.0	68.6	22.76%	246.5	55.52%	Tubb2c
IPI00415403.1	363	354	238	371	666	1992	363	398.4	69.7	21.90%	219.1	51.54%	Tubb5
IPI00331704.7	314	409	353	318	578	1972	353	394.4	47.8	13.31%	141.1	33.89%	Stxbp1
IPI00109061.1	344	288	212	355	689	1888	344	377.6	66.3	23.55%	244.8	58.47%	Tubb2b
IPI00338039.1	304	292	212	352	654	1814	304	362.8	50.0	18.57%	225.9	55.64%	Tubb2a
IPI00387413.2	0	674	0	0	1053	1727	0	345.4	389.1	173.21%	607.9	173.21%	Actg1
IPI00319602.3	168	434	216	530	260	1608	260	321.6	141.8	51.99%	170.0	50.70%	Hist2h2bb
IPI00187543.3	263	522	308	250	259	1602	263	320.4	138.4	37.98%	31.2	11.46%	Hspd1
IPI00117042.3	262	366	318	282	312	1540	312	308.0	52.1	16.51%	19.3	6.34%	Eno2
IPI00308885.6	382	197	260	429	262	1530	262	306.0	94.1	33.63%	97.0	30.60%	Cnp
IPI00136703.1	272	358	285	276	285	1476	285	295.2	46.4	15.20%	5.2	1.84%	Gfap
IPI00308162.3	270	285	231	360	239	1385	270	277.0	27.9	10.64%	72.3	26.13%	Ckb
IPI00467841.6	257	403	343	139	208	1350	257	270.0	73.4	21.95%	103.8	45.11%	Nefl
IPI00857092.1	204	252	185	215	415	1271	215	254.2	34.5	16.16%	125.0	46.02%	Actc1
IPI00230192.5	196	445	242	238	147	1268	238	253.6	132.5	45.01%	53.7	25.71%	Slc25a12
IPI00114279.1	187	203	155	199	476	1220	199	244.0	24.4	13.45%	174.0	62.90%	Tubb6
IPI00119113.3	155	424	249	186	190	1204	190	240.8	136.5	49.46%	35.3	16.93%	Slc1a3
IPI00121550.3	235	250	211	221	254	1171	235	234.2	19.7	8.48%	22.5	9.84%	Uqcrc1
IPI00330000.4	173	0	225	516	233	1147	225	229.4	117.8	88.79%	165.7	51.05%	Hist2h2aa2
IPI00114593.1	172	195	137	232	381	1117	195	223.4	29.2	17.38%	123.0	49.20%	Calm2
IPI00323592.2	172	195	137	232	381	1117	195	223.4	29.2	17.38%	123.0	49.20%	Calm2
IPI00228548.6	268	343	243	206	48	1108	243	221.6	52.0	18.28%	103.6	62.52%	Hbb-b1
IPI00122971.1	187	284	226	205	202	1104	205	220.8	48.8	21.01%	13.1	6.20%	Slc4a4
IPI00117043.1	178	257	193	212	244	1084	212	216.8	42.0	20.04%	25.8	11.91%	Mdh2
IPI00653598.2	243	185	130	286	236	1080	236	216.0	56.5	30.38%	79.7	36.65%	Gnao1
IPI00135965.2	174	264	190	262	163	1053	190	210.6	48.0	22.94%	51.2	24.96%	Ncam1
IPI00761696.2	186	183	149	207	295	1020	186	204.0	20.6	11.90%	73.5	33.88%	Tubb3
IPI00341282.2	180	263	264	157	153	1017	180	203.4	48.2	20.46%	63.0	32.91%	Vim
IPI00313475.1	189	201	155	149	291	985	189	197.0	23.9	13.13%	80.3	40.49%	Aco2

IPI00762198.2	154	174	146	242	246	962	174	192.4	14.4	9.13%	56.6	26.79%	ENSMUSG00000060832
IPI00122928.1	171	228	131	212	210	952	210	190.4	48.7	27.59%	46.2	25.06%	Atp1b1
IPI00407130.4	296	132	166	349	0	943	166	188.6	86.6	43.72%	174.6	101.69%	LOC640374
IPI00831180.1	136	255	143	180	213	927	180	185.4	66.8	37.51%	35.0	19.60%	Atp6v1b2
IPI00406447.3	168	265	180	112	183	908	180	181.6	52.9	25.88%	40.2	25.36%	Ina
IPI00621789.1	133	221	190	158	177	879	177	175.8	44.6	24.62%	16.1	9.20%	Atp2b2
IPI00227299.6	204	252	185	215	0	856	204	171.2	34.5	16.16%	116.4	87.33%	Acta2
IPI00283611.1	160	236	194	101	155	846	160	169.2	38.1	19.36%	46.7	31.13%	Abcb1a
IPI00378063.1	142	212	154	178	153	839	154	167.8	37.4	22.11%	14.2	8.75%	Hk1
IPI00116074.1	188	228	220	194	0	830	194	166.0	21.2	9.98%	120.2	87.11%	Eno3
IPI00751677.3	127	204	134	174	190	829	174	165.8	42.6	27.47%	28.8	17.38%	Dpysl3
IPI00128296.1	89	224	108	273	130	824	130	164.8	73.1	52.07%	89.6	52.60%	Hist1h2bf
IPI00876255.1	172	273	161	108	95	809	161	161.8	61.7	30.56%	35.0	28.81%	Atp5f1
IPI00776087.1	84	217	108	265	130	804	130	160.8	70.9	51.99%	85.0	50.70%	Hist3h2ba
IPI00626385.4	170	231	174	83	146	804	170	160.8	34.1	17.80%	46.6	34.70%	Nefm
IPI00323357.3	199	180	148	149	121	797	149	159.4	25.8	14.67%	15.9	11.40%	Dync1h1
IPI00554928.3	117	65	57	248	299	786	117	157.2	32.6	40.89%	127.6	63.36%	4732495G21Rik
IPI00273801.3	0	0	0	785	0	785	0	157.0	0.0	#DIV/0!	453.2	173.21%	LOC100041204
IPI00323800.6	131	164	131	176	178	780	164	156.0	19.1	13.42%	26.6	16.44%	Pkm2
IPI00459725.2	100	167	118	269	121	775	121	155.0	34.7	27.02%	86.3	50.98%	Hist2h2ab
IPI00119876.1	158	149	123	153	183	766	153	153.2	18.2	12.68%	30.0	19.61%	Ap2b1
IPI00112251.1	112	155	193	201	105	766	155	153.2	40.5	26.43%	53.3	32.02%	Atp5c1
IPI00122547.1	180	118	162	162	139	761	162	152.2	31.9	20.80%	13.3	8.60%	Vdac2
IPI00131695.3	180	174	135	140	126	755	140	151.0	24.4	14.99%	7.1	5.31%	Gnai2
IPI00272878.6	107	209	143	173	117	749	143	149.8	51.7	33.81%	28.0	19.42%	Dnm1
IPI00331182.4	144	160	167	108	129	708	144	141.6	11.8	7.51%	29.9	22.21%	Plec1
IPI00556827.1	128	145	173	129	130	705	130	141.0	22.7	15.28%	25.1	17.44%	Alb
IPI00553774.3	149	124	132	126	168	699	132	139.8	12.8	9.46%	22.7	16.00%	Ndufs1
IPI00553834.3	144	107	97	157	188	693	144	138.6	24.8	21.34%	46.3	31.40%	Hspa8
IPI00652902.1	128	128	106	139	168	669	128	133.8	12.7	10.53%	31.0	22.53%	Ckmt1
IPI00407692.3	114	159	113	114	165	665	114	133.0	26.3	20.42%	29.7	22.76%	Atp6v1a
IPI00221723.1	656	0	0	0	0	656	0	131.2	378.7	173.21%	0.0	#DIV/0!	Tuba8
IPI00230351.1	123	184	161	88	89	645	123	129.0	30.8	19.75%	41.9	37.15%	Nefh
IPI00338854.3	101	188	95	93	166	643	101	128.6	52.0	40.66%	41.6	35.24%	Abat

IPI00123058.1	110	108	162	137	123	640	123	128.0	30.6	24.17%	19.8	14.05%	Atp2b1
IPI00114642.4	117	145	133	136	106	637	133	127.4	14.0	10.67%	16.5	13.22%	Cntn1
IPI00131376.5	81	195	126	142	91	635	126	127.0	57.4	42.85%	26.1	21.80%	Cox5a
IPI00338964.3	113	107	90	121	204	635	113	127.0	11.9	11.55%	58.9	42.61%	Glud1
IPI00114241.2	109	83	63	128	244	627	109	125.4	23.1	27.14%	91.7	63.23%	Nsf
IPI00828950.1	104	176	99	105	135	619	105	123.8	43.1	34.10%	19.3	17.07%	Atp6v0a1
IPI00623951.3	100	0	119	269	123	611	119	122.2	63.9	87.57%	85.5	50.18%	H2afx
IPI00221528.1	119	136	115	101	138	609	119	121.8	11.2	9.04%	18.7	15.83%	Atp2a2
IPI00132653.1	59	248	170	73	49	599	73	119.8	95.0	59.74%	64.1	65.82%	Syp
IPI00117312.1	96	186	70	121	121	594	121	118.8	60.9	51.88%	29.4	28.31%	Idh3a
IPI00116498.1	85	103	58	207	138	591	103	118.2	22.6	27.62%	74.6	55.51%	H2afy
IPI00308882.4	106	66	146	136	137	591	136	118.2	40.0	37.74%	5.5	3.94%	Ywhaz
IPI00129618.1	76	135	110	107	150	578	110	115.6	29.6	27.68%	24.0	19.62%	Syt1
IPI00134344.6	123	124	106	95	124	572	123	114.4	10.1	8.60%	14.6	13.51%	Gpd2
IPI00845652.1	138	118	105	91	118	570	118	114.0	16.6	13.81%	13.5	12.90%	Got2
IPI00467152.4	85	108	164	106	106	569	106	113.8	40.6	34.14%	33.5	26.72%	Camk2a
IPI00788324.1	113	131	114	144	62	564	114	112.8	10.1	8.48%	41.5	38.90%	Myh9
IPI00464317.3	101	145	83	82	147	558	101	111.6	31.9	29.08%	37.2	35.81%	Cs
IPI00751474.1	105	146	97	86	112	546	105	109.2	26.3	22.66%	13.1	13.27%	Ogdh
IPI00230730.4	148	116	75	108	98	545	108	109.0	36.6	32.38%	16.9	18.07%	Gnai1
IPI00319509.5	108	113	111	103	102	537	108	107.4	2.5	2.27%	4.9	4.68%	Spnb3
IPI00877254.1	123	124	122	91	76	536	122	107.2	1.0	0.81%	23.5	24.35%	Spnb1
IPI00120193.1	62	206	123	78	64	533	78	106.6	72.3	55.46%	30.8	34.90%	Cdc42
IPI00319992.1	88	114	122	112	87	523	112	104.6	17.8	16.46%	18.0	16.85%	Atp2b3
IPI00420725.4	94	47	60	105	207	513	94	102.6	24.3	36.22%	75.3	60.74%	Hist2h3c2
IPI00227235.3	102	151	105	64	79	501	102	100.2	27.5	23.02%	20.7	25.09%	Anpep
IPI00119138.1	78	95	141	89	93	496	93	99.2	32.6	31.14%	28.9	26.88%	Atp2b4
IPI00469221.5	112	117	118	75	60	482	112	96.4	3.2	2.78%	30.1	35.70%	Hspa5
IPI00230264.5	77	87	73	121	123	481	87	96.2	7.2	9.13%	28.3	26.79%	Hist1h4a
IPI00648683.3	132	104	64	93	86	479	93	95.8	34.2	34.18%	15.1	18.68%	Gnai3
IPI00123644.1	0	252	0	215	0	467	0	93.4	145.5	173.21%	124.1	173.21%	Acta1
IPI00649886.1	102	153	85	95	32	467	95	93.4	35.4	31.22%	33.9	47.91%	Hba-a2
IPI00227432.6	49	160	102	114	39	464	102	92.8	55.5	53.56%	40.3	47.40%	Dnm3
IPI00108780.7	87	104	88	87	98	464	88	92.8	9.5	10.26%	6.1	6.68%	Slc12a5

IPI00323230.5	76	113	81	86	98	454	86	90.8	20.1	22.31%	8.7	9.89%	Slc25a3
IPI00407339.7	102	90	71	91	99	453	91	90.6	15.6	17.83%	14.4	16.58%	Uqcrc2
IPI00753468.2	70	49	53	92	184	448	70	89.6	11.2	19.45%	67.3	61.33%	Basp1
IPI00124771.1	90	89	82	93	89	443	89	88.6	4.4	5.01%	5.6	6.33%	Ap2a2
IPI00407499.1	76	69	78	100	117	440	78	88.0	4.7	6.36%	19.6	19.88%	Aldoa
IPI00263013.4	81	110	86	71	86	434	86	86.8	15.5	16.79%	8.7	10.69%	Sdha
IPI00856379.1	66	117	66	81	102	432	81	86.4	29.4	35.48%	18.1	21.79%	Syn1
IPI00115240.1	85	92	79	82	83	421	83	84.2	6.5	7.62%	2.1	2.56%	Ap1b1
IPI00395193.1	78	90	85	86	81	420	85	84.0	6.0	7.15%	2.6	3.15%	Ap2a1
IPI00123505.2	94	98	77	67	74	410	77	82.0	11.2	12.44%	5.1	7.06%	Hadha
IPI00230108.6	69	77	134	71	57	408	71	81.6	35.4	37.98%	41.0	46.97%	Camk2b
IPI00113141.1	62	65	57	100	117	401	65	80.2	4.0	6.59%	30.9	33.86%	Ywhae
IPI00129519.3	90	82	89	70	69	400	82	80.0	4.4	5.01%	11.3	14.83%	Rtn1
IPI00310091.8	83	106	50	118	40	397	83	79.4	28.1	35.33%	42.4	61.21%	Plp1
IPI00109275.1	68	85	87	61	91	392	85	78.4	10.4	13.05%	16.3	20.45%	Slc25a22
IPI00230707.6	78	59	76	86	85	384	78	76.8	10.4	14.70%	5.5	6.69%	Ank2
IPI00312527.4	79	79	61	108	57	384	79	76.8	10.4	14.24%	28.4	37.65%	Mbp
IPI00347110.2	103	71	49	63	97	383	71	76.6	27.2	36.53%	24.7	35.43%	Pdhb
IPI00110658.1	82	50	32	115	99	378	82	75.6	25.3	46.33%	44.0	53.70%	Ywhag
IPI00342603.7	84	71	60	38	118	371	71	74.2	12.0	16.76%	41.3	57.40%	Oxct1
IPI00265299.3	0	0	112	258	0	370	0	74.0	64.7	173.21%	129.4	104.90%	H2afj
IPI00114209.1	0	0	113	256	0	369	0	73.8	65.2	173.21%	128.3	104.30%	Hist1h2af
IPI00622235.5	80	65	49	68	107	369	68	73.8	15.5	23.97%	29.6	39.60%	Stx1b2
IPI00114641.2	59	83	76	60	90	368	76	73.6	12.3	16.98%	15.0	19.93%	Slc3a2
IPI00554845.2	54	100	70	80	64	368	70	73.6	23.4	31.28%	8.1	11.33%	Vcp
IPI00118384.1	89	81	63	54	80	367	80	73.4	13.3	17.15%	13.2	20.11%	Gls
IPI00515360.8	99	84	106	28	46	363	84	72.6	11.2	11.67%	40.8	68.07%	Spna1
IPI00623553.1	65	140	75	62	18	360	65	72.0	40.7	43.63%	29.9	57.82%	Krt73
IPI00663736.2	68	129	71	43	45	356	68	71.2	34.4	38.49%	15.6	29.47%	Maoa
IPI00828664.1	82	70	68	70	61	351	70	70.2	7.6	10.33%	4.7	7.12%	Immt
IPI00130460.1	67	68	55	57	97	344	67	68.8	7.2	11.42%	23.7	34.01%	Atp6v0d1
IPI00229542.1	39	90	77	112	25	343	77	68.6	26.5	38.59%	43.8	61.37%	Hist1h2aa
IPI00132042.1	75	77	72	42	77	343	75	68.6	2.5	3.37%	18.9	29.73%	Itpr1
IPI00122548.3	64	99	64	58	54	339	64	67.8	20.2	26.71%	5.0	8.58%	Atp5h

IPI00626790.3	62	90	54	68	65	339	65	67.8	18.9	27.53%	7.4	11.83%	Glul
IPI00125899.1	64	99	64	58	54	339	64	67.8	20.2	26.71%	5.0	8.58%	LOC100039281
IPI00126635.1	76	90	68	56	48	338	68	67.6	11.1	14.28%	10.1	17.56%	Ndufs2
IPI00378480.1	63	0	65	105	104	337	65	67.4	37.0	86.63%	22.8	24.98%	Hist1h4a
IPI00337893.2	63	85	71	60	57	336	63	67.2	11.1	15.25%	7.4	11.76%	Ogdhl
IPI00229080.7	52	66	63	54	97	332	63	66.4	7.4	12.22%	22.7	31.79%	Pdha1
IPI00230507.5	50	91	62	60	63	326	62	65.2	21.1	31.15%	1.5	2.48%	Gpi1
IPI00123390.8	71	72	77	48	57	325	71	65.0	3.2	4.38%	14.8	24.47%	Pdia3
IPI00153660.4	78	48	63	68	65	322	65	64.4	15.0	23.81%	2.5	3.85%	Hsp90ab1
IPI00113149.1	87	37	68	67	62	321	67	64.2	25.2	39.44%	3.2	4.90%	Hsp90aa1
IPI00111218.1	67	66	53	56	76	318	66	63.6	7.8	12.60%	12.5	20.28%	Dlat
IPI00785343.2	62	35	39	44	138	318	44	63.6	14.6	32.14%	55.8	75.71%	Sv2a
IPI00131176.1	49	70	49	77	70	315	70	63.0	12.1	21.65%	14.6	22.30%	Pgk1
IPI00128023.3	64	51	68	71	60	314	64	62.8	8.9	14.57%	5.7	8.57%	Aldoc
IPI00229796.3	55	75	47	50	86	313	55	62.6	14.4	24.44%	21.7	35.58%	Idh3b
IPI00118986.1	82	73	55	57	45	312	57	62.4	13.7	19.64%	6.4	12.28%	Acsl6
IPI00555069.3	44	80	39	78	70	311	70	62.2	22.4	41.17%	20.6	33.05%	mt-Co2
IPI00162781.2	76	68	58	57	50	309	58	61.8	9.0	13.39%	4.4	7.93%	Ctnnb1
IPI00330804.4	63	47	55	66	72	303	63	60.6	8.0	14.55%	8.6	13.40%	Crmp1
IPI00828253.1	70	54	46	54	77	301	54	60.2	12.2	21.57%	16.1	27.28%	Canx
IPI00129622.3	60	65	52	64	57	298	60	59.6	6.6	11.11%	6.0	10.45%	Tln1
IPI00227126.1	71	59	44	49	75	298	59	59.6	13.5	23.32%	16.6	29.72%	Vdac3
IPI00420570.1	55	73	57	63	49	297	57	59.4	9.9	16.00%	7.0	12.47%	Syt2
IPI00119063.2	58	55	53	40	87	293	55	58.6	2.5	4.55%	24.3	40.45%	Opa1
IPI00663180.4	59	94	36	40	63	292	59	58.4	29.2	46.36%	14.6	31.45%	Cyc1
IPI00120761.3	49	87	62	44	48	290	49	58.0	19.3	29.26%	9.5	18.41%	Sept7
IPI00129526.1	71	50	54	66	48	289	54	57.8	11.2	19.12%	9.2	16.37%	Atp5o
IPI00113223.2	61	47	38	111	32	289	47	57.8	11.6	23.82%	44.0	72.90%	Hspg2
IPI00553798.2	49	85	57	49	48	288	49	57.6	18.9	29.69%	4.9	9.61%	Calr
IPI00649778.1	56	37	45	74	76	288	56	57.6	9.5	20.74%	17.3	26.69%	Nfasc
IPI00757312.1	79	52	50	40	64	285	52	57.0	16.2	26.85%	12.1	23.48%	Aqp4
IPI00230682.6	63	30	29	47	116	285	47	57.0	19.3	47.58%	45.9	71.76%	Fh1
IPI00465810.3	64	69	72	35	43	283	64	56.6	4.0	5.91%	19.5	38.94%	Ank1
IPI00854028.2	53	73	70	34	53	283	53	56.6	10.8	16.51%	18.0	34.41%	Ly6c1

IPI00230738.2	54	57	71	49	51	282	54	56.4	9.1	14.96%	12.2	21.34%	Lrp1
IPI00313841.1	38	34	66	49	95	282	49	56.4	17.4	37.90%	23.3	33.23%	Vamp2
IPI00228633.7	45	49	49	74	60	277	49	55.4	2.3	4.84%	12.5	20.54%	Snap25
IPI00465786.3	46	51	38	60	82	277	51	55.4	6.6	14.57%	22.0	36.67%	Tpi1
IPI00267848.5	48	66	52	37	71	274	52	54.8	9.5	17.08%	17.0	31.95%	Actn1
IPI00131618.1	75	51	44	43	61	274	51	54.8	16.3	28.69%	10.1	20.51%	Slc25a11
IPI00230418.5	42	71	55	37	67	272	55	54.4	14.5	25.94%	15.1	28.49%	Ahcyl1
IPI00114710.2	81	54	61	39	37	272	54	54.4	14.0	21.45%	13.3	29.16%	Hsp90b1
IPI00223092.5	55	19	28	78	91	271	55	54.2	18.7	55.10%	33.3	50.65%	Sept5
IPI00125635.1	59	59	43	48	58	267	58	53.4	9.2	17.21%	7.6	15.38%	Ndufv1
IPI00230680.7	73	17	24	47	103	264	47	52.8	30.5	80.30%	40.6	70.06%	Dld
IPI00119618.1	62	47	39	55	61	264	55	52.8	11.7	23.67%	11.4	22.01%	Vsnl1
IPI00623506.3	53	61	68	36	45	263	53	52.6	7.5	12.37%	16.5	33.23%	Dtna
IPI00129928.2	52	68	49	46	47	262	49	52.4	10.2	18.13%	1.5	3.23%	Ndufa9
IPI00121110.1	69	76	49	31	37	262	49	52.4	14.0	21.67%	9.2	23.50%	Slc4a1
IPI00273164.1	56	36	42	51	76	261	51	52.2	10.3	22.98%	17.6	31.27%	Aldh5a1
IPI00649152.3	62	68	51	43	35	259	51	51.8	8.6	14.29%	8.0	18.60%	Phb2
IPI00755993.1	48	48	30	70	63	259	48	51.8	10.4	24.74%	21.4	39.32%	Ywhab
IPI00331564.2	51	55	58	47	47	258	51	51.6	3.5	6.42%	6.4	12.53%	Ppp2r1a
IPI00121534.11	45	48	95	35	33	256	45	51.2	28.0	44.75%	35.2	64.85%	Camk2d
IPI00154054.1	39	50	41	49	77	256	49	51.2	5.9	13.52%	18.9	33.96%	Gdi1
IPI00416280.3	45	50	49	57	55	256	50	51.2	2.6	5.51%	4.2	7.76%	Tnr
IPI00122094.2	60	57	41	41	55	254	55	50.8	10.2	19.39%	8.1	17.70%	Aldh2
IPI00880839.1	54	54	49	39	57	253	54	50.6	2.9	5.52%	9.0	18.66%	Dmd
IPI00403336.4	45	43	38	55	71	252	45	50.4	3.6	8.58%	16.5	30.19%	Stx1a
IPI00321718.4	53	68	51	24	55	251	53	50.2	9.3	16.21%	16.9	38.91%	Snta1
IPI00123639.1	46	51	49	46	55	247	49	49.4	2.5	5.17%	4.6	9.17%	Acat1
IPI00229647.5	72	41	43	55	36	247	43	49.4	17.3	33.36%	9.6	21.51%	Itgb1
IPI00120212.1	50	54	49	56	38	247	50	49.4	2.6	5.19%	9.1	19.04%	Myh10
IPI00323179.3	51	48	52	49	46	246	49	49.2	2.1	4.14%	3.0	6.12%	Ctnna2
IPI00119870.2	46	50	49	40	61	246	49	49.2	2.1	4.31%	10.5	21.07%	Hspa9
IPI00311654.4	59	33	40	45	68	245	45	49.0	13.5	30.58%	14.9	29.28%	Atp1b2
IPI00135042.1	45	43	53	50	54	245	50	49.0	5.3	11.26%	2.1	3.98%	Plcb1
IPI00329998.2	47	41	69	64	22	243	47	48.6	14.7	28.17%	25.8	49.96%	Uqcrfs1

IPI00122565.1	36	55	38	79	33	241	38	48.2	10.4	24.28%	25.2	50.48%	Gpm6a
IPI00132728.2	46	25	60	47	62	240	47	48.0	17.6	40.34%	8.1	14.46%	Atp4a
IPI00464296.5	53	42	52	47	46	240	47	48.0	6.1	12.41%	3.2	6.65%	Rtn4
IPI00553538.3	46	55	38	47	51	237	47	47.4	8.5	18.36%	6.7	14.69%	Epb4.1l3
IPI00230754.5	32	46	47	50	61	236	47	47.2	8.4	20.13%	7.4	14.00%	Atp6v1f
IPI00133240.1	61	19	25	45	85	235	45	47.0	22.7	64.90%	30.6	59.13%	H3f3a
IPI00315999.4	38	38	29	47	83	235	38	47.0	5.2	14.85%	27.5	51.88%	Snap91
IPI00119115.2	59	47	47	43	38	234	47	46.8	6.9	13.58%	4.5	10.57%	Myo5a
IPI00222833.1	54	51	37	56	36	234	51	46.8	9.1	19.17%	11.3	26.21%	Pygb
IPI00467833.5	39	39	32	50	73	233	39	46.6	4.0	11.02%	20.6	39.78%	Syn2
IPI00880852.1	43	42	37	63	48	233	43	46.6	3.2	7.90%	13.1	26.46%	Ywhaq
IPI00129134.3	38	56	53	56	29	232	53	46.4	9.6	19.68%	14.8	32.17%	Cntnap1
IPI00119458.7	33	35	26	63	75	232	35	46.4	4.7	15.08%	25.5	46.72%	Rab3a
IPI00123704.1	50	45	45	53	38	231	45	46.2	2.9	6.19%	7.5	16.56%	Ank3
IPI00132474.3	42	45	42	33	68	230	42	46.0	1.7	4.03%	18.2	38.13%	Phb
IPI00308976.1	38	52	38	39	62	229	39	45.8	8.1	18.94%	13.6	29.30%	Actn4
IPI00114560.5	40	44	92	34	18	228	40	45.6	28.9	49.32%	38.9	81.12%	Rps27a
IPI00128450.1	33	64	34	55	42	228	42	45.6	17.6	40.34%	10.6	24.27%	Sirt2
IPI00407954.2	40	44	92	34	18	228	40	45.6	28.9	49.32%	38.9	81.12%	Uba52
IPI00556723.1	27	45	92	32	29	225	32	45.0	33.6	61.39%	35.5	69.68%	Camk2g
IPI00353420.7	41	41	33	44	64	223	41	44.6	4.6	12.05%	15.7	33.44%	Ppia
IPI00468121.1	47	30	30	50	64	221	47	44.2	9.8	27.52%	17.1	35.60%	Hist1h3g
IPI00330754.1	35	46	29	36	74	220	36	44.0	8.6	23.51%	24.2	52.26%	Rab1
IPI00132799.4	37	55	33	41	53	219	41	43.8	11.7	28.13%	10.1	23.78%	Mdh1
IPI00554989.3	50	39	36	40	54	219	40	43.8	7.4	17.69%	9.5	21.81%	Pcx
IPI00229510.5	31	81	25	40	42	219	40	43.8	30.7	67.33%	9.3	26.05%	Rala
IPI00124700.1	45	72	37	29	36	219	37	43.8	18.3	35.73%	4.4	12.82%	Sfxn3
IPI00307837.6	35	38	82	32	31	218	35	43.6	26.3	50.93%	29.2	60.33%	Dlst
IPI00875717.2	44	40	33	38	63	218	40	43.6	5.6	14.28%	16.1	35.98%	Sucla2
IPI00224626.3	66	36	52	49	11	214	49	42.8	15.0	29.24%	22.9	61.22%	Ahnak
IPI00115875.7	35	48	40	38	52	213	40	42.6	6.6	15.99%	7.6	17.47%	Ctnna1
IPI00113517.1	57	49	30	30	47	213	47	42.6	13.9	30.59%	9.8	27.52%	Syngap1
IPI00850200.1	44	51	47	37	34	213	44	42.6	3.5	7.42%	6.8	17.31%	Tln2
IPI00133440.1	42	37	41	41	51	212	41	42.4	2.6	6.61%	5.8	13.02%	Dpp6

IPI00121309.2	34	50	36	46	44	210	44	42.0	8.7	21.79%	5.3	12.60%	Ndufs3
IPI00853924.1	43	45	44	42	35	209	43	41.8	1.0	2.27%	4.7	11.72%	Anxa6
IPI00317309.5	41	73	48	20	27	209	41	41.8	16.8	31.15%	14.6	46.02%	Hspa12b
IPI00380273.1	48	52	43	31	35	209	43	41.8	4.5	9.46%	6.1	16.82%	Mbc2
IPI00311515.2	44	40	37	36	52	209	40	41.8	3.5	8.71%	9.0	21.51%	Me3
IPI00380436.1	33	27	43	53	52	208	43	41.6	8.1	23.54%	5.5	11.16%	Atp6v1e1
IPI00118120.1	36	42	46	36	48	208	42	41.6	5.0	12.18%	6.4	14.84%	Dlg4
IPI00226807.3	89	0	0	0	119	208	0	41.6	51.4	173.21%	68.7	173.21%	Hist2h2ac
IPI00336324.11	49	28	29	62	40	208	40	41.6	11.8	33.53%	16.8	38.48%	Ldhb
IPI00880742.1	47	34	41	45	40	207	41	41.4	6.5	16.00%	2.6	6.30%	Pi4ka
IPI00406790.6	46	64	51	45	0	206	46	41.2	9.3	17.31%	27.9	87.11%	Atp2a1
IPI00466699.3	53	38	41	47	27	206	41	41.2	7.9	18.04%	10.3	26.77%	Macf1
IPI00850457.1	55	40	41	39	30	205	40	41.0	8.4	18.50%	5.9	15.98%	Dmxl2
IPI00755916.3	47	32	35	52	39	205	39	41.0	7.9	20.89%	8.9	21.16%	Fasn
IPI00118899.1	47	44	39	41	34	205	41	41.0	4.0	9.33%	3.6	9.49%	Gria2
IPI00124282.1	40	36	36	53	39	204	39	40.8	2.3	6.19%	9.1	21.27%	Cadm2
IPI00663627.1	43	43	47	36	34	203	43	40.6	2.3	5.21%	7.0	17.95%	Cadps
IPI00261627.1	39	41	38	39	45	202	39	40.4	1.5	3.88%	3.8	9.31%	Gdi2
IPI00133706.1	54	40	37	36	35	202	37	40.4	9.1	20.78%	1.0	2.78%	Rap1a
IPI00137227.1	37	39	47	42	37	202	39	40.4	5.3	12.91%	5.0	11.90%	Slc4a10
IPI00405986.2	77	31	27	27	40	202	31	40.4	27.8	61.74%	7.5	23.95%	Sod2
IPI00310220.3	33	67	23	40	38	201	38	40.2	23.1	56.26%	9.3	27.60%	Ralb
IPI00110265.1	43	23	38	53	41	198	41	39.6	10.4	30.02%	7.9	18.04%	C1qbp
IPI00228618.5	50	35	36	42	34	197	36	39.4	8.4	20.79%	4.2	11.15%	Ndufa10
IPI00121378.2	37	42	25	30	62	196	37	39.2	8.7	25.20%	20.1	51.47%	Arf1
IPI00403993.5	56	37	36	36	31	196	36	39.2	11.3	26.21%	2.9	8.41%	Rap1b
IPI00396743.1	51	42	33	31	38	195	38	39.0	9.0	21.43%	3.6	10.60%	Gnb4
IPI00136134.1	47	50	30	32	36	195	36	39.0	10.8	25.48%	3.1	9.35%	Tomm70a
IPI00169788.1	39	24	23	85	21	192	24	38.4	9.0	31.27%	36.4	84.62%	Lamc1
IPI00402778.1	47	55	34	28	28	192	34	38.4	10.6	23.38%	3.5	11.55%	Rpn2
IPI00469548.2	39	39	38	39	37	192	39	38.4	0.6	1.49%	1.0	2.63%	Ube1y1
IPI00649135.2	46	36	50	35	24	191	36	38.2	7.2	16.39%	13.1	35.92%	Acadvl
IPI00400180.1	35	44	41	39	31	190	39	38.0	4.6	11.46%	5.3	14.30%	Sept8
IPI00138892.2	27	47	39	46	30	189	39	37.8	10.1	26.73%	8.0	20.92%	Amph

IPI00330163.4	32	38	29	47	43	189	38	37.8	4.6	13.89%	9.5	23.83%	Napb
IPI00331332.6	27	65	36	29	32	189	32	37.8	19.9	46.54%	3.5	10.86%	Ndufv2
IPI00625588.1	45	50	37	29	27	188	37	37.6	6.6	14.90%	5.3	17.07%	Bdh1
IPI00762897.2	49	47	37	30	25	188	37	37.6	6.4	14.50%	6.0	19.66%	Flnb
IPI00405227.3	53	33	31	36	34	187	34	37.4	12.2	31.19%	2.5	7.48%	Gna11
IPI00122409.1	37	36	37	37	38	185	37	37.0	0.6	1.57%	0.6	1.55%	Gnaq
IPI00109169.1	35	48	35	36	30	184	35	36.8	7.5	19.08%	3.2	9.55%	Cand1
IPI00227898.3	34	57	33	28	32	184	33	36.8	13.6	32.85%	2.6	8.53%	Prkcc
IPI00112963.1	30	34	40	33	46	183	34	36.6	5.0	14.52%	6.5	16.40%	ENSMUSG00000074081
IPI00123313.1	27	54	38	39	24	182	38	36.4	13.6	34.23%	8.4	24.91%	Lsamp
IPI00676243.2	37	37	33	30	45	182	37	36.4	2.3	6.47%	7.9	22.05%	Rab1b
IPI00126042.3	50	47	45	23	17	182	45	36.4	2.5	5.32%	14.7	52.03%	Utrn
IPI00752501.2	33	32	21	38	56	180	33	36.0	6.7	23.23%	17.5	45.66%	Ndrg2
IPI00122974.1	50	38	38	43	11	180	38	36.0	6.9	16.50%	17.2	56.13%	Prpf8
IPI00331541.5	47	32	31	33	36	179	33	35.8	9.0	24.44%	2.5	7.55%	Gnas
IPI00605677.5	34	37	40	43	25	179	37	35.8	3.0	8.11%	9.6	26.79%	H2afz
IPI00469392.2	37	35	47	46	14	179	37	35.8	6.4	16.21%	18.8	52.63%	Syne1
IPI00331734.5	44	24	30	36	44	178	36	35.6	10.3	31.42%	7.0	19.16%	Idh3g
IPI00122965.1	30	46	34	39	28	177	34	35.4	8.3	22.71%	5.5	16.36%	Cox4i1
IPI00113480.1	45	43	26	19	44	177	43	35.4	10.4	27.47%	12.9	43.47%	Rab2
IPI00138406.1	24	46	36	42	28	176	36	35.2	11.0	31.17%	7.0	19.88%	Gja1
IPI00120984.5	36	34	33	33	39	175	34	35.0	1.5	4.45%	3.5	9.90%	Prdx6
IPI00462803.5	81	20	0	46	28	175	28	35.0	42.2	125.33%	23.2	93.97%	Prss3
IPI00119667.1	31	45	41	30	27	174	31	34.8	7.2	18.49%	7.4	22.56%	Alcam
IPI00134809.2	30	42	37	34	31	174	34	34.8	6.0	16.59%	3.0	8.82%	Ndufa8
IPI00117978.1	52	24	34	29	35	174	34	34.8	14.2	38.70%	3.2	9.84%	Rpn1
IPI00126115.1	34	34	38	31	36	173	34	34.6	2.3	6.54%	3.6	10.30%	Pfkm
IPI00416906.2	30	10	16	32	84	172	30	34.4	10.3	54.98%	35.6	80.80%	Hist2h3c2
IPI00751137.1	35	32	31	34	40	172	34	34.4	2.1	6.37%	4.6	13.09%	Sfxn5
IPI00420562.5	31	33	30	41	34	169	33	33.8	1.5	4.88%	5.6	15.91%	Prkcb1
IPI00263863.8	36	43	0	27	62	168	36	33.6	23.1	87.62%	31.1	104.78%	Arf3
IPI00620873.3	30	36	29	28	45	168	30	33.6	3.8	11.96%	9.5	28.06%	Rhob
IPI00470981.2	28	37	25	25	52	167	28	33.4	6.2	20.82%	15.6	45.85%	Acaa2
IPI00405625.9	36	36	41	31	23	167	36	33.4	2.9	7.66%	9.0	28.48%	Car2

IPI00309035.2	29	42	27	33	35	166	33	33.2	8.1	24.93%	4.2	13.15%	Eef1a1
IPI00121387.1	33	40	42	34	17	166	34	33.2	4.7	12.33%	12.8	41.18%	Enpep
IPI00111770.7	34	40	33	29	30	166	33	33.2	3.8	10.61%	2.1	6.79%	Ndufb10
IPI00758024.1	41	25	27	33	39	165	33	33.0	8.7	28.12%	6.0	18.18%	Pgam1
IPI00330862.5	28	40	29	30	37	164	30	32.8	6.7	20.59%	4.4	13.62%	Ncdn
IPI00221614.3	33	38	36	41	15	163	36	32.6	2.5	7.06%	13.8	44.99%	Gstm1
IPI00308691.1	26	42	34	30	30	162	30	32.4	8.0	23.53%	2.3	7.37%	Cap1
IPI00124792.1	38	34	27	36	26	161	34	32.2	5.6	16.87%	5.5	18.56%	Mtap1a
IPI00221613.5	26	29	29	40	37	161	29	32.2	1.7	6.19%	5.7	16.09%	Ppp3ca
IPI00109109.1	27	40	34	30	30	161	30	32.2	6.5	19.33%	2.3	7.37%	Tufm
IPI00115627.4	22	37	27	27	47	160	27	32.0	7.6	26.64%	11.5	34.30%	Dnajc5
IPI00474883.2	31	40	30	25	34	160	31	32.0	5.5	16.36%	4.5	15.20%	Slc2a1
IPI00115679.1	36	48	30	29	16	159	30	31.8	9.2	24.12%	7.8	31.24%	Atp5k
IPI00828762.1	13	11	10	19	105	158	13	31.6	1.5	13.48%	52.4	117.41%	Gap43
IPI00331299.9	35	35	29	37	22	158	35	31.6	3.5	10.50%	7.5	25.59%	Vcl
IPI00457898.3	27	36	26	32	36	157	32	31.4	5.5	18.56%	5.0	16.06%	Rhoa
IPI00122815.3	24	48	30	25	29	156	29	31.2	12.5	36.74%	2.6	9.45%	Acly
IPI00133006.1	35	37	30	27	27	156	30	31.2	3.6	10.60%	1.7	6.19%	Hpcal4
IPI00877205.1	33	26	23	28	46	156	28	31.2	5.1	18.77%	12.1	37.41%	Prdx3
IPI00135869.3	32	35	34	24	31	156	32	31.2	1.5	4.54%	5.1	17.30%	Rab11b
IPI00121288.5	26	33	29	32	34	154	32	30.8	3.5	11.97%	2.5	7.95%	L1cam
IPI00131138.10	31	29	48	27	18	153	29	30.6	10.4	29.00%	15.4	49.66%	Hnt
IPI00170310.1	52	7	10	25	59	153	25	30.6	25.2	109.39%	25.1	80.13%	mt-Co1
IPI00116748.1	30	27	39	35	22	153	30	30.6	6.2	19.52%	8.9	27.78%	Mtap1b
IPI00134585.1	26	29	20	44	34	153	29	30.6	4.6	18.33%	12.1	36.90%	Pacsin1
IPI00115762.1	30	27	31	33	30	151	30	30.2	2.1	7.10%	1.5	4.88%	Eef2
IPI00648938.1	26	26	27	60	12	151	26	30.2	0.6	2.19%	24.6	74.41%	Lamb2
IPI00869430.1	24	35	30	36	25	150	30	30.0	5.5	18.56%	5.5	18.16%	Cox6b1
IPI00221602.1	23	38	23	33	33	150	33	30.0	8.7	30.93%	5.8	19.46%	Dnm1l
IPI00348094.4	35	32	33	24	25	149	32	29.8	1.5	4.58%	4.9	18.05%	Cyfip2
IPI00116753.4	28	36	30	24	31	149	30	29.8	4.2	13.29%	3.8	13.36%	Etfa
IPI00118825.2	29	20	19	39	42	149	29	29.8	5.5	24.30%	12.5	37.51%	Lmnb1
IPI00475154.1	35	19	24	33	38	149	33	29.8	8.2	31.48%	7.1	22.40%	Ndufa5
IPI00130920.1	27	28	28	35	29	147	28	29.4	0.6	2.09%	3.8	12.35%	Actr3

IPI00133342.1	34	34	33	24	22	147	33	29.4	0.6	1.71%	5.9	22.25%	Cacna2d1
IPI00831373.1	31	38	31	25	22	147	31	29.4	4.0	12.12%	4.6	17.63%	Ctsb
IPI00225275.5	40	40	27	15	25	147	27	29.4	7.5	21.04%	6.4	28.79%	Itga1
IPI00407543.2	32	39	30	22	24	147	30	29.4	4.7	14.04%	4.2	16.43%	Itga6
IPI00110588.4	35	34	36	26	16	147	34	29.4	1.0	2.86%	10.0	38.46%	P140
IPI00124221.1	25	43	18	25	36	147	25	29.4	12.9	44.99%	9.1	34.46%	Rab14
IPI00466371.2	26	25	24	45	26	146	26	29.2	1.0	4.00%	11.6	36.60%	Kpnb1
IPI00466069.3	38	22	23	30	33	146	30	29.2	9.0	32.40%	5.1	17.90%	P4hb
IPI00338309.4	37	30	29	28	21	145	29	29.0	4.4	13.62%	4.4	16.76%	Ryr2
IPI00135677.1	39	38	37	17	13	144	37	28.8	1.0	2.63%	12.9	57.57%	Tfrc
IPI00121545.1	15	46	28	31	23	143	28	28.6	15.6	52.47%	4.0	14.79%	Hspe1
IPI00775779.11	33	29	26	27	28	143	28	28.6	3.5	11.97%	1.0	3.70%	Sirpa
IPI00420329.1	28	36	28	23	27	142	28	28.4	4.6	15.06%	2.6	10.18%	Anxa5
IPI00116192.1	25	33	27	30	27	142	27	28.4	4.2	14.69%	1.7	6.19%	Bin1
IPI00124695.1	21	20	41	29	31	142	29	28.4	11.8	43.34%	6.4	19.10%	Got1
IPI00274407.1	27	31	29	30	25	142	29	28.4	2.0	6.90%	2.6	9.45%	Mtap2
IPI00453798.3	28	33	18	50	12	141	28	28.2	7.6	29.00%	20.4	76.61%	Agrn
IPI00119203.4	20	19	36	41	25	141	25	28.2	9.5	38.16%	8.2	24.07%	Cltb
IPI00224776.8	39	0	0	41	61	141	39	28.2	22.5	173.21%	31.1	91.46%	Csl
IPI00221608.3	21	36	37	18	29	141	29	28.2	9.0	28.60%	9.5	34.07%	Letm1
IPI00133215.3	24	38	28	24	26	140	26	28.0	7.2	24.04%	2.0	7.69%	Atp1b3
IPI00653158.1	36	32	28	28	16	140	28	28.0	4.0	12.50%	6.9	28.87%	Flna
IPI00874522.1	26	29	21	39	25	140	26	28.0	4.0	15.95%	9.5	33.36%	Mtap6
IPI00315100.1	24	27	22	36	31	140	27	28.0	2.5	10.34%	7.1	23.91%	Nptn
IPI00313884.1	30	27	22	21	40	140	27	28.0	4.0	15.35%	10.7	38.65%	Prkar2b
IPI00453834.2	40	27	36	19	18	140	27	28.0	6.7	19.39%	10.1	41.57%	Tjp1
IPI00667086.3	0	139	0	0	0	139	0	27.8	80.3	173.21%	0.0	#DIV/0!	4732456N10Rik
IPI00131177.1	22	31	20	28	38	139	28	27.8	5.9	24.08%	9.0	31.46%	Epb4.1l1
IPI00230394.5	15	40	30	28	26	139	28	27.8	12.6	44.41%	2.0	7.14%	Ndufab1
IPI00111686.5	15	24	15	19	66	139	19	27.8	5.2	28.87%	28.4	85.08%	Ywhah
IPI00404182.2	31	23	25	30	29	138	29	27.6	4.2	15.81%	2.6	9.45%	Adam22
IPI00225390.5	17	33	24	30	34	138	30	27.6	8.0	32.52%	5.0	17.16%	Capzb
IPI00880252.1	23	32	31	41	11	138	31	27.6	4.9	17.21%	15.3	55.21%	Ezr
IPI00474959.2	23	33	37	22	23	138	23	27.6	7.2	23.26%	8.4	30.68%	Ptprs

IPI00608063.3	32	31	37	22	16	138	31	27.6	3.2	9.64%	10.8	43.27%	Ugcgl1
IPI00134093.4	19	24	36	34	24	137	24	27.4	8.7	33.18%	6.4	20.52%	Hspa2
IPI00323122.1	26	20	14	70	7	137	20	27.4	6.0	30.00%	34.5	113.84%	Lama2
IPI00387494.1	26	38	27	23	23	137	26	27.4	6.7	21.95%	2.3	9.49%	Suclg1
IPI00453499.3	29	38	24	22	23	136	24	27.2	7.1	23.39%	1.0	4.35%	Aldh6a1
IPI00122069.1	31	15	19	39	32	136	31	27.2	8.3	38.43%	10.1	33.83%	Eef1a2
IPI00877320.1	25	29	33	24	25	136	25	27.2	4.0	13.79%	4.9	18.05%	Lonp1
IPI00762713.1	27	39	28	24	18	136	27	27.2	6.7	21.25%	5.0	21.57%	Uqcrb
IPI00169925.2	20	25	33	26	31	135	26	27.0	6.6	25.22%	3.6	12.02%	Igsf8
IPI00355248.5	27	52	24	32	0	135	27	27.0	15.4	44.78%	16.7	89.21%	Mpo
IPI00114352.1	32	27	27	37	12	135	27	27.0	2.9	10.07%	12.6	49.67%	Msn
IPI00308063.3	30	34	31	20	20	135	30	27.0	2.1	6.57%	6.4	26.83%	Samm50
IPI00132347.1	34	18	25	20	37	134	25	26.8	8.0	31.25%	8.7	31.96%	Cfl1
IPI00742334.1	21	36	29	25	23	134	25	26.8	7.5	26.18%	3.1	11.90%	Slc1a6
IPI00395042.1	29	31	31	21	21	133	29	26.6	1.2	3.81%	5.8	23.73%	Ganab
IPI00761641.1	28	23	30	27	25	133	27	26.6	3.6	13.35%	2.5	9.21%	Rtn3
IPI00845544.1	30	30	27	28	18	133	28	26.6	1.7	5.97%	5.5	22.63%	Scn2a1
IPI00153202.1	18	31	23	32	29	133	29	26.6	6.6	27.32%	4.6	16.37%	Sept6
IPI00649556.1	33	32	35	16	17	133	32	26.6	1.5	4.58%	10.7	47.17%	Serpinh1
IPI00109612.2	17	40	28	22	25	132	25	26.4	11.5	40.60%	3.0	12.00%	Rab35
IPI00125266.1	28	38	32	15	19	132	28	26.4	5.0	15.41%	8.9	40.40%	Sccpdh
IPI00229008.2	28	54	22	27	0	131	27	26.2	17.0	49.07%	14.4	87.94%	Epx
IPI00230444.1	30	32	28	25	16	131	28	26.2	2.0	6.67%	6.2	27.15%	Kcnj10
IPI00139301.3	20	24	17	28	42	131	24	26.2	3.5	17.27%	12.5	43.21%	Kras
IPI00221788.3	27	40	34	30	0	131	30	26.2	6.5	19.33%	18.6	87.11%	LOC100041265
IPI00626793.3	21	22	22	33	33	131	22	26.2	0.6	2.66%	6.4	21.65%	Sept11
IPI00757771.1	19	33	28	26	24	130	26	26.0	7.1	26.60%	2.0	7.69%	Atp8a1
IPI00648567.1	27	22	21	23	36	129	23	25.8	3.2	13.78%	8.1	30.54%	Pde2a
IPI00130391.1	18	27	27	22	34	128	27	25.6	5.2	21.65%	6.0	21.79%	4631427C17Rik
IPI00620256.3	27	34	24	18	25	128	25	25.6	5.1	18.11%	3.8	16.95%	Ctnnd2
IPI00461964.2	26	28	36	15	23	128	26	25.6	5.3	17.64%	10.6	42.97%	Por
IPI00118569.1	27	44	26	14	17	128	26	25.6	10.1	31.29%	6.2	32.87%	Trf
IPI00331628.5	28	30	25	24	20	127	25	25.4	2.5	9.10%	2.6	11.50%	Prkar2a
IPI00153266.1	20	23	16	27	40	126	23	25.2	3.5	17.86%	12.0	43.42%	Hras1

IPI00131693.2	31	29	29	17	19	125	29	25.0	1.2	3.89%	6.4	29.67%	Ace2
IPI00311461.1	25	26	23	32	19	125	25	25.0	1.5	6.19%	6.7	26.99%	Lmna
IPI00130185.1	37	22	21	14	31	125	22	25.0	9.0	33.61%	8.5	38.84%	Rab2b
IPI00857911.1	24	28	21	21	30	124	24	24.8	3.5	14.43%	5.2	21.65%	Atp6v1h
IPI00113248.1	27	28	23	22	24	124	24	24.8	2.6	10.18%	1.0	4.35%	Podxl
IPI00124444.1	23	39	23	15	24	124	23	24.8	9.2	32.60%	4.9	23.87%	Ppp1ca
IPI00118075.1	21	18	27	29	28	123	27	24.6	4.6	20.83%	1.0	3.57%	Pclo
IPI00126248.3	19	25	31	29	18	122	25	24.4	6.0	24.00%	7.0	26.92%	Dnajc6
IPI00221456.1	19	28	17	35	23	122	23	24.4	5.9	27.47%	9.2	36.66%	Tmod2
IPI00279443.1	34	33	26	11	17	121	26	24.2	4.4	14.06%	7.5	41.94%	Alpl
IPI00321348.3	21	22	25	15	38	121	22	24.2	2.1	9.18%	11.5	44.36%	Atp6v1c1
IPI00130489.1	23	14	10	51	23	121	23	24.2	6.7	42.50%	21.0	74.83%	H2afy2
IPI00387312.2	23	31	20	21	26	121	23	24.2	5.7	23.05%	3.2	14.39%	Napa
IPI00136000.1	22	31	19	34	15	121	22	24.2	6.2	26.02%	10.0	44.19%	Slc6a11
IPI00515604.2	17	27	19	29	29	121	27	24.2	5.3	25.20%	5.8	22.49%	Slc8a2
IPI00330523.1	20	30	18	21	31	120	21	24.0	6.4	28.36%	6.8	29.17%	Negr1
IPI00308446.2	17	22	31	23	27	120	23	24.0	7.1	30.41%	4.0	14.81%	Opcml
IPI00118930.1	26	36	36	22	0	120	26	24.0	5.8	17.67%	18.1	93.87%	Prph
IPI00123613.1	21	15	28	31	25	120	25	24.0	6.5	30.50%	3.0	10.71%	Sh3gl2
IPI00323897.3	15	9	56	17	23	120	17	24.0	25.6	95.92%	21.0	65.63%	Vamp3
IPI00857780.1	27	27	19	24	22	119	24	23.8	4.6	18.98%	2.5	11.62%	Ncam2
IPI00226215.1	23	22	20	44	10	119	22	23.8	1.5	7.05%	17.5	70.84%	Nid1
IPI00230715.5	25	36	22	23	12	118	23	23.6	7.4	26.64%	6.1	32.01%	Cadm3
IPI00282848.1	19	21	15	33	30	118	21	23.6	3.1	16.66%	9.6	37.09%	Cd81
IPI00308077.6	29	24	17	31	17	118	24	23.6	6.0	25.83%	8.1	37.31%	Lap3
IPI00139788.2	24	14	24	36	20	118	24	23.6	5.8	27.94%	8.3	31.22%	Ndufb5
IPI00849670.1	24	30	28	22	14	118	24	23.6	3.1	11.18%	7.0	32.92%	Ptprd
IPI00131666.1	17	23	23	22	32	117	23	23.4	3.5	16.50%	5.5	21.46%	Ap2m1
IPI00453826.2	32	25	30	22	8	117	25	23.4	3.6	12.43%	11.1	55.68%	Hsd17b4
IPI00379694.4	29	34	33	12	9	117	29	23.4	2.6	8.27%	13.1	72.65%	Krt5
IPI00420706.4	23	28	27	23	16	117	23	23.4	2.6	10.18%	5.6	25.31%	Ndufa13
IPI00115833.2	18	26	27	25	20	116	25	23.2	4.9	20.84%	3.6	15.02%	Sv2b
IPI00111168.1	115	0	0	0	0	115	0	23.0	66.4	173.21%	0.0	#DIV/0!	Abcb1b
IPI00228978.2	22	17	24	13	39	115	22	23.0	3.6	17.17%	13.1	51.52%	Echs1

IPI00320217.9	36	18	19	22	20	115	20	23.0	10.1	41.57%	1.5	7.51%	Hadhb
IPI00752192.1	21	24	26	16	28	115	24	23.0	2.5	10.63%	6.4	27.55%	Iars2
IPI00400016.1	31	16	18	23	27	115	23	23.0	8.1	37.59%	4.5	19.89%	Ndufs4
IPI00127556.1	28	22	25	17	23	115	23	23.0	3.0	12.00%	4.2	19.22%	Nrcam
IPI00403929.3	25	28	25	15	22	115	25	23.0	1.7	6.66%	5.1	24.83%	Rab11a
IPI00330887.1	27	32	28	20	7	114	27	22.8	2.6	9.12%	10.6	57.81%	Ascc3l1
IPI00136135.1	23	19	24	29	19	114	23	22.8	2.6	12.03%	5.0	20.83%	Mpp2
IPI00652934.3	32	19	22	22	19	114	22	22.8	6.8	27.97%	1.7	8.25%	Pcyox1
IPI00856723.1	20	22	46	17	9	114	20	22.8	14.5	49.32%	19.5	81.12%	Rps27a
IPI00119152.1	30	23	18	20	22	113	22	22.6	6.0	25.47%	2.0	10.00%	Gna14
IPI00621548.2	21	22	28	25	17	113	22	22.6	3.8	16.00%	5.7	24.37%	Ndufa12
IPI00121949.1	27	32	28	8	18	113	27	22.6	2.6	9.12%	10.0	55.56%	Ndufb7
IPI00339468.4	19	29	19	28	18	113	19	22.6	5.8	25.85%	5.5	25.42%	Sept3
IPI00844763.1	14	36	20	10	31	111	20	22.2	11.4	48.74%	10.5	51.66%	Cntfr
IPI00626132.3	23	28	17	22	21	111	22	22.2	5.5	24.30%	2.6	13.23%	Gdap1l1
IPI00123342.4	24	19	20	24	24	111	24	22.2	2.6	12.60%	2.3	10.19%	Pfkp
IPI00752108.1	21	25	27	19	19	111	21	22.2	3.1	12.56%	4.6	21.32%	Rab7
IPI00403586.3	32	32	27	0	20	111	27	22.2	2.9	9.52%	14.0	89.44%	Tubb1
IPI00387557.3	25	17	18	20	30	110	20	22.0	4.4	21.79%	6.4	28.36%	Acad9
IPI00125861.2	14	32	19	11	34	110	19	22.0	9.3	42.88%	11.7	54.73%	Arf5
IPI00153317.3	23	22	20	29	16	110	22	22.0	1.5	7.05%	6.7	30.73%	Gda
IPI00402982.2	25	22	20	22	21	110	22	22.0	2.5	11.27%	1.0	4.76%	Maob
IPI00224570.3	31	14	26	27	12	110	26	22.0	8.7	36.92%	8.4	38.71%	Pygm
IPI00875866.1	14	21	20	27	27	109	21	21.8	3.8	20.65%	4.0	16.38%	Camkv
IPI00132705.1	34	30	16	14	15	109	16	21.8	9.5	35.44%	1.0	6.67%	Cyb5r3
IPI00221615.5	28	17	15	18	31	109	18	21.8	7.0	35.00%	8.5	39.87%	Hepacam
IPI00138378.4	27	29	25	13	15	109	25	21.8	2.0	7.41%	6.4	36.39%	Hyou1
IPI00454142.5	23	41	24	21	0	109	23	21.8	10.1	34.49%	13.1	87.18%	Matr3
IPI00624192.3	24	22	17	19	27	109	22	21.8	3.6	17.17%	5.3	25.20%	Prdx5
IPI00221754.3	16	42	24	18	9	109	18	21.8	13.3	48.72%	7.5	44.41%	Slc38a3
IPI00756238.2	30	18	22	26	12	108	22	21.6	6.1	26.19%	7.2	36.06%	Abhd12
IPI00475031.1	27	25	26	21	9	108	25	21.6	1.0	3.85%	8.7	46.80%	Atp5l
IPI00754853.1	35	8	21	26	18	108	21	21.6	13.5	63.30%	4.0	18.65%	Slc12a2
IPI00109213.1	16	31	24	18	18	107	18	21.4	7.5	31.71%	3.5	17.32%	Bsg

IPI00129577.1	20	15	18	50	4	107	18	21.4	2.5	14.24%	23.6	98.25%	Lama5
IPI00319518.4	21	23	24	24	15	107	23	21.4	1.5	6.74%	5.2	24.74%	Pfkl
IPI00875110.1	20	30	20	16	21	107	20	21.4	5.8	24.74%	2.6	13.93%	Ppp1cb
IPI00126191.5	25	39	26	12	5	107	25	21.4	7.8	26.03%	10.7	74.60%	Rcn2
IPI00845581.1	29	15	17	24	21	106	21	21.2	7.6	37.24%	3.5	16.99%	Cpe
IPI00116356.5	24	16	24	20	22	106	22	21.2	4.6	21.65%	2.0	9.09%	Dpysl4
IPI00310533.2	16	29	18	22	21	106	21	21.2	7.0	33.33%	2.1	10.24%	ENSMUSG00000048362
IPI00468203.3	20	22	18	35	11	106	20	21.2	2.0	10.00%	12.3	57.85%	Mag
IPI00380799.5	19	18	12	21	36	106	19	21.2	3.8	23.18%	12.1	52.71%	Nras
IPI00605187.4	18	27	18	20	23	106	20	21.2	5.2	24.74%	2.5	12.38%	Pebp1
IPI00226140.5	24	22	24	21	15	106	22	21.2	1.2	4.95%	4.6	22.91%	Rap2b
IPI00406442.2	21	21	25	30	9	106	21	21.2	2.3	10.34%	11.0	51.42%	Rdx
IPI00408892.2	21	29	20	10	25	105	21	21.0	4.9	21.14%	7.6	41.66%	Actn2
IPI00187430.3	26	23	21	22	13	105	22	21.0	2.5	10.79%	4.9	26.43%	Rap2a
IPI00266942.6	20	26	15	18	25	104	20	20.8	5.5	27.09%	5.1	26.54%	Add1
IPI00122273.1	23	21	20	22	18	104	21	20.8	1.5	7.16%	2.0	10.00%	Hpca
IPI00222496.3	22	26	23	14	19	104	22	20.8	2.1	8.80%	4.5	24.16%	Hsd17b10
IPI00808203.2	15	29	20	20	20	104	20	20.8	7.1	33.26%	0.0	0.00%	Ndufc2
IPI00344004.2	23	23	26	21	11	104	23	20.8	1.7	7.22%	7.6	39.50%	Pcca
IPI00315334.5	26	24	25	10	18	103	24	20.6	1.0	4.00%	7.5	42.48%	Lrpprc
IPI00330289.3	25	19	17	25	17	103	19	20.6	4.2	20.48%	4.6	23.49%	Pccb
IPI00122486.3	22	19	19	23	20	103	20	20.6	1.7	8.66%	2.1	10.07%	Spnb4
IPI00761331.2	22	29	18	20	13	102	20	20.4	5.6	24.21%	3.6	21.21%	Abcc4
IPI00123756.1	23	18	28	21	12	102	21	20.4	5.0	21.74%	8.0	39.45%	Cct2
IPI00115663.2	23	19	23	17	20	102	20	20.4	2.3	10.66%	3.0	15.00%	Dlg1
IPI00387430.1	27	24	18	17	16	102	18	20.4	4.6	19.92%	1.0	5.88%	Jup
IPI00405736.3	18	23	15	20	26	102	20	20.4	4.0	21.65%	5.5	27.09%	Mif
IPI00116279.3	23	20	24	17	18	102	20	20.4	2.1	9.32%	3.8	19.25%	Pdia6
IPI00111265.3	25	27	22	13	15	102	22	20.4	2.5	10.20%	4.7	28.35%	Slc9a3r2
IPI00378438.6	26	28	20	17	10	101	20	20.2	4.2	16.88%	5.1	32.75%	Abca1
IPI00653398.1	26	16	14	17	28	101	17	20.2	6.4	34.44%	7.4	37.48%	EG620772
IPI00119114.2	27	20	11	15	28	101	20	20.2	8.0	41.49%	8.9	49.38%	Kcnab2
IPI00130186.4	19	19	21	22	20	101	20	20.2	1.2	5.87%	1.0	4.76%	Nme2
IPI00230193.7	22	22	17	23	17	101	22	20.2	2.9	14.20%	3.5	18.23%	Rap1gds1

IPI00473693.3	15	29	13	21	23	101	21	20.2	8.7	45.88%	5.3	27.85%	Tkt
IPI00230427.5	16	27	19	19	20	101	19	20.2	5.7	27.51%	0.6	2.99%	Vapa
IPI00131459.1	25	27	20	16	12	100	20	20.0	3.6	15.02%	4.0	25.00%	Acsbg1
IPI00313998.1	29	21	20	12	18	100	20	20.0	4.9	21.14%	4.2	24.98%	Ctnnd1
IPI00119219.2	20	25	25	13	17	100	20	20.0	2.9	12.37%	6.1	33.33%	Hibch
IPI00222419.5	22	28	22	16	12	100	22	20.0	3.5	14.43%	5.0	30.20%	Pkp4
IPI00132002.1	24	21	23	18	13	99	21	19.8	1.5	6.74%	5.0	27.78%	Dctn1
IPI00133284.1	18	26	16	15	24	99	18	19.8	5.3	26.46%	4.9	26.91%	Hibadh
IPI00453996.1	22	18	22	21	16	99	21	19.8	2.3	11.17%	3.2	16.35%	Idh2
IPI00124900.1	18	15	19	14	33	99	18	19.8	2.1	12.01%	9.8	44.77%	Thy1
IPI00131896.1	16	22	15	18	28	99	18	19.8	3.8	21.43%	6.8	33.48%	Uchl1
IPI00880610.1	23	27	18	18	12	98	18	19.6	4.5	19.89%	3.5	21.65%	Gna13
IPI00115607.3	18	18	13	30	19	98	18	19.6	2.9	17.67%	8.6	41.72%	Hist1h1d
IPI00119970.4	26	19	13	13	27	98	19	19.6	6.5	33.65%	8.1	45.75%	Mgst3
IPI00132531.1	17	18	27	23	13	98	18	19.6	5.5	26.65%	7.2	34.34%	Ppp3cb
IPI00420554.2	23	13	15	31	16	98	16	19.6	5.3	31.13%	9.0	43.37%	Prdx2
IPI00117181.1	16	25	23	16	18	98	18	19.6	4.7	22.15%	3.6	18.98%	Sdhb
IPI00751369.1	15	24	19	23	16	97	19	19.4	4.5	23.32%	3.5	18.16%	Brp44
IPI00653686.1	25	25	17	17	13	97	17	19.4	4.6	20.68%	2.3	14.74%	Cyfip1
IPI00132443.3	26	21	27	12	11	97	21	19.4	3.2	13.03%	9.0	53.78%	Dag1
IPI00759881.1	12	8	9	19	49	97	12	19.4	2.1	21.53%	20.8	81.10%	Dynll2
IPI00454049.4	18	17	15	26	21	97	18	19.4	1.5	9.17%	5.5	26.65%	Epb4.1l2
IPI00753326.1	29	23	24	9	12	97	23	19.4	3.2	12.69%	7.9	52.92%	Fer1l3
IPI00405742.6	23	19	19	24	12	97	19	19.4	2.3	11.36%	6.0	32.88%	mt-Nd5
IPI00311873.5	19	23	13	22	19	96	19	19.2	5.0	27.45%	4.6	25.46%	Dpp10
IPI00126083.3	20	19	18	23	16	96	19	19.2	1.0	5.26%	3.6	18.98%	Ehd1
IPI00353563.4	24	17	18	21	16	96	18	19.2	3.8	19.25%	2.5	13.73%	Ehd3
IPI00165731.3	18	15	20	21	22	96	20	19.2	2.5	14.24%	1.0	4.76%	Ldha
IPI00154047.1	17	17	19	11	32	96	17	19.2	1.2	6.54%	10.6	51.28%	LOC672195
IPI00342766.8	28	22	18	15	13	96	18	19.2	5.0	22.21%	2.5	16.41%	Nomo1
IPI00480233.1	24	18	19	17	18	96	18	19.2	3.2	15.81%	1.0	5.56%	Plxnb1
IPI00135324.2	20	23	20	20	13	96	20	19.2	1.7	8.25%	4.0	22.88%	Plxnb2
IPI00229475.1	21	22	16	17	19	95	19	19.0	3.2	16.35%	1.5	8.81%	C130026L21Rik
IPI00460063.2	23	15	14	21	22	95	21	19.0	4.9	28.46%	4.4	22.94%	Cask

IPI00315359.1	19	16	24	19	17	95	19	19.0	4.0	20.55%	3.6	18.03%	Cct5
IPI00330476.3	19	21	15	16	24	95	19	19.0	3.1	16.66%	4.9	26.91%	Fscn1
IPI00111793.1	21	16	21	21	16	95	21	19.0	2.9	14.93%	2.9	14.93%	Mpp6
IPI00170093.3	23	21	16	17	18	95	18	19.0	3.6	18.03%	1.0	5.88%	Ndufs8
IPI00276515.4	20	17	18	21	19	95	19	19.0	1.5	8.33%	1.5	7.90%	Rab10
IPI00133980.1	16	18	12	36	12	94	16	18.8	3.1	19.92%	13.9	69.28%	Ahsg
IPI00468539.3	24	20	17	19	14	94	19	18.8	3.5	17.27%	2.5	15.10%	Anxa2
IPI00750256.2	9	15	39	18	13	94	15	18.8	15.9	75.59%	13.8	59.13%	Atp5d
IPI00116222.1	22	16	16	23	17	94	17	18.8	3.5	19.25%	3.8	20.28%	Cntnap2
IPI00319973.3	22	22	17	19	14	94	19	18.8	2.9	14.20%	2.5	15.10%	Flot1
IPI00756745.5	20	14	19	23	18	94	19	18.8	3.2	18.20%	2.6	13.23%	Gprin1
IPI00128249.1	19	21	15	33	6	94	19	18.8	3.1	16.66%	13.7	76.38%	Mog
IPI00453777.2	14	34	13	14	19	94	14	18.8	11.8	58.26%	3.2	20.96%	Uqcrh
IPI00109221.3	20	20	19	21	13	93	20	18.6	0.6	2.94%	4.2	23.57%	Auh
IPI00396687.3	25	10	13	18	27	93	18	18.6	7.9	49.61%	7.1	36.70%	Cadm1
IPI00133387.1	30	21	27	13	2	93	21	18.6	4.6	17.63%	12.5	89.50%	Dysf
IPI00227928.3	20	36	0	15	22	93	20	18.6	18.0	96.63%	11.2	91.13%	Ppp1cc
IPI00340165.5	20	13	9	20	31	93	20	18.6	5.6	39.77%	11.0	55.00%	Snca
IPI00131614.1	26	19	17	14	17	93	17	18.6	4.7	22.87%	1.7	10.83%	Sntb1
IPI00785314.1	16	22	18	22	14	92	18	18.4	3.1	16.37%	4.0	22.22%	Flot2
IPI00470152.2	14	24	14	21	19	92	19	18.4	5.8	33.31%	3.6	20.03%	Icam5
IPI00113726.3	22	25	25	15	5	92	22	18.4	1.7	7.22%	10.0	66.67%	Myh14
IPI00858116.1	20	16	18	19	19	92	19	18.4	2.0	11.11%	0.6	3.09%	Nrxn3
IPI00137409.3	17	24	21	20	9	91	20	18.2	3.5	16.99%	6.7	39.95%	Aadacl1
IPI00346834.1	19	27	22	12	11	91	19	18.2	4.0	17.83%	6.1	40.55%	Aifm1
IPI00227773.1	18	19	23	19	12	91	19	18.2	2.6	13.23%	5.6	30.93%	Gstp1
IPI00471176.2	21	13	17	23	17	91	17	18.2	4.0	23.53%	3.5	18.23%	Marcks
IPI00761443.1	10	30	16	20	15	91	16	18.2	10.3	54.98%	2.6	15.56%	Scamp5
IPI00170357.5	21	24	17	19	10	91	19	18.2	3.5	16.99%	4.7	30.82%	Spg3a
IPI00469987.3	16	13	23	18	21	91	18	18.2	5.1	29.61%	2.5	12.18%	Tppp
IPI00653794.2	21	16	21	10	22	90	21	18.0	2.9	14.93%	6.7	37.69%	Cp
IPI00317710.1	20	19	19	16	16	90	19	18.0	0.6	2.99%	1.7	10.19%	Lancl2
IPI00396701.3	22	16	21	22	9	90	21	18.0	3.2	16.35%	7.2	41.74%	Myh11
IPI00555023.2	21	14	21	18	16	90	18	18.0	4.0	21.65%	2.5	13.73%	Pgrmc1

IPI00331597.6	10	24	14	17	25	90	17	18.0	7.2	45.07%	5.7	30.46%	Rab3c
IPI00110825.1	14	18	19	25	13	89	18	17.8	2.6	15.56%	6.0	31.58%	Baiap2
IPI00653921.2	22	14	21	20	12	89	20	17.8	4.4	22.94%	4.9	27.92%	Dhx9
IPI00112129.1	23	20	15	8	23	89	20	17.8	4.0	20.90%	7.5	48.95%	Dpysl5
IPI00331076.4	0	0	0	0	89	89	0	17.8	0.0	#DIV/0!	51.4	173.21%	EG433923
IPI00408207.2	18	20	20	17	14	89	18	17.8	1.2	5.97%	3.0	17.65%	Gnaz
IPI00120374.1	25	17	8	16	23	89	17	17.8	8.5	51.03%	7.5	47.91%	Nckap1
IPI00128155.2	21	18	20	15	15	89	18	17.8	1.5	7.77%	2.9	17.32%	Nrxn1
IPI00125267.4	17	22	11	21	18	89	18	17.8	5.5	33.05%	5.1	30.79%	Prnd
IPI00856469.1	15	26	19	19	10	89	19	17.8	5.6	27.84%	5.2	32.48%	Rac1
IPI00346073.1	17	29	18	13	11	88	17	17.6	6.7	31.21%	3.6	25.75%	Nnt
IPI00223714.5	20	22	20	15	11	88	20	17.6	1.2	5.59%	4.5	29.41%	Sacm1l
IPI00876408.1	21	11	20	20	16	88	20	17.6	5.5	31.77%	2.3	12.37%	Slc25a18
IPI00228680.2	19	16	18	20	15	88	18	17.6	1.5	8.65%	2.5	14.24%	Tns1
IPI00230310.5	14	15	20	21	17	87	17	17.4	3.2	19.68%	2.1	10.77%	Aak1
IPI00816946.1	22	24	20	14	7	87	20	17.4	2.0	9.09%	6.5	47.61%	Asah1
IPI00409405.2	19	15	13	24	16	87	16	17.4	3.1	19.50%	5.7	32.19%	Hist1h1e
IPI00408215.1	17	21	16	21	12	87	17	17.4	2.6	14.70%	4.5	27.61%	Hspa4l
IPI00331692.1	13	31	18	14	11	87	14	17.4	9.3	44.96%	3.5	24.50%	Ndufb4
IPI00515151.2	14	22	14	17	20	87	17	17.4	4.6	27.71%	3.0	17.65%	Psap
IPI00130118.1	19	16	16	18	18	87	18	17.4	1.7	10.19%	1.2	6.66%	Rab5c
IPI00755241.1	15	23	21	16	12	87	16	17.4	4.2	21.17%	4.5	27.61%	Slc1a4
IPI00123276.1	24	17	17	15	13	86	17	17.2	4.0	20.90%	2.0	13.33%	Afg3l2
IPI00877299.1	15	16	20	17	18	86	17	17.2	2.6	15.56%	1.5	8.33%	Nme1
IPI00124046.1	19	10	13	24	20	86	19	17.2	4.6	32.73%	5.6	29.30%	Plxna4
IPI00676957.3	12	22	17	16	19	86	17	17.2	5.0	29.41%	1.5	8.81%	Ppp2ca
IPI00222731.2	14	24	10	20	18	86	18	17.2	7.2	45.07%	5.3	33.07%	Sncb
IPI00113895.1	19	20	19	17	10	85	19	17.0	0.6	2.99%	4.7	30.82%	Ak1
IPI00138716.1	12	22	21	21	9	85	21	17.0	5.5	30.04%	6.9	40.75%	Aldh1l1
IPI00408495.1	17	21	10	19	18	85	18	17.0	5.6	34.80%	4.9	31.49%	Dlg2
IPI00338536.1	19	18	19	17	12	85	18	17.0	0.6	3.09%	3.6	22.53%	Hspa12a
IPI00458393.3	23	0	15	47	0	85	15	17.0	11.7	92.18%	24.0	116.16%	Rab3d
IPI00115157.2	18	17	20	19	10	84	18	16.8	1.5	8.33%	5.5	33.72%	5730469M10Rik
IPI00127408.3	16	16	14	20	18	84	16	16.8	1.2	7.53%	3.1	17.63%	Capza2

IPI00322156.1	17	19	11	20	17	84	17	16.8	4.2	26.57%	4.6	28.64%	D10Jhu81e
IPI00316495.3	18	22	16	23	5	84	18	16.8	3.1	16.37%	9.1	61.87%	Enpp6
IPI00127417.1	15	12	10	19	28	84	15	16.8	2.5	20.40%	9.0	47.37%	Gbas
IPI00187545.4	13	19	13	21	18	84	18	16.8	3.5	23.09%	4.0	23.32%	Mapt
IPI00227392.5	22	13	18	22	9	84	18	16.8	4.5	25.52%	6.7	40.77%	Myo1d
IPI00132720.2	22	18	10	16	18	84	18	16.8	6.1	36.66%	4.2	28.39%	Ndufb8
IPI00875016.1	16	15	15	19	19	84	16	16.8	0.6	3.77%	2.3	13.07%	Slc6a1
IPI00850737.1	21	25	20	9	9	84	20	16.8	2.6	12.03%	6.4	50.14%	Txndc10
IPI00620601.1	22	16	17	18	11	84	17	16.8	3.2	17.53%	3.8	24.69%	Usp5
IPI00123802.5	12	25	17	14	15	83	15	16.6	6.6	36.43%	1.5	9.96%	Alg2
IPI00129319.3	20	25	10	16	12	83	16	16.6	7.6	41.66%	3.1	24.12%	Atp6v0c
IPI00130144.2	15	21	21	11	15	83	15	16.6	3.5	18.23%	5.0	32.13%	Cat
IPI00468653.3	16	14	12	23	18	83	16	16.6	2.0	14.29%	5.5	31.17%	Ctbp1
IPI00314950.2	22	12	17	17	15	83	17	16.6	5.0	29.41%	1.2	7.07%	Lrrc7
IPI00229534.5	20	13	16	19	15	83	16	16.6	3.5	21.50%	2.1	12.49%	Pip5k1c
IPI00126072.2	25	23	12	14	8	82	14	16.4	7.0	35.00%	3.1	26.96%	2410015M20Rik
IPI00649104.1	16	14	17	12	23	82	16	16.4	1.5	9.75%	5.5	31.77%	Acadl
IPI00123604.4	20	19	22	9	12	82	19	16.4	1.5	7.51%	6.8	47.49%	D12Ertd551e
IPI00123619.6	16	23	14	14	15	82	15	16.4	4.7	26.75%	0.6	4.03%	Grm3
IPI00131369.1	22	28	13	13	6	82	13	16.4	7.5	35.95%	4.0	37.89%	Hnrpm
IPI00331556.5	21	15	19	15	12	82	15	16.4	3.1	16.66%	3.5	22.90%	Myo1c
IPI00608097.1	12	25	18	12	15	82	15	16.4	6.5	35.49%	3.0	20.00%	Pcsk1n
IPI00229992.1	17	14	16	17	17	81	17	16.2	1.5	9.75%	0.6	3.46%	Astn1
IPI00131407.1	26	17	16	12	10	81	16	16.2	5.5	28.00%	3.1	24.12%	Ephx1
IPI00138232.4	20	6	11	18	26	81	18	16.2	7.1	57.52%	7.5	40.94%	Nipsnap1
IPI00749860.1	20	18	21	14	8	81	18	16.2	1.5	7.77%	6.5	45.39%	Rplp0
IPI00875107.1	12	19	17	17	16	81	17	16.2	3.6	22.53%	0.6	3.46%	Wdr7
IPI00112312.3	12	18	17	14	19	80	17	16.0	3.2	20.52%	2.5	15.10%	Cisd1
IPI00136716.1	13	26	16	11	14	80	14	16.0	6.8	37.13%	2.5	18.41%	Hsbp1
IPI00467447.3	13	13	11	26	17	80	13	16.0	1.2	9.36%	7.5	41.94%	Lmnb2
IPI00875695.1	17	13	15	16	19	80	16	16.0	2.0	13.33%	2.1	12.49%	Mylc2b
IPI00649184.2	16	24	14	18	8	80	16	16.0	5.3	29.40%	5.0	37.75%	Plxna1
IPI00128346.1	20	18	17	17	8	80	17	16.0	1.5	8.33%	5.2	37.12%	Slc32a1
IPI00119067.3	17	15	17	17	13	79	17	15.8	1.2	7.07%	2.3	14.74%	Acsl3

IPI00120302.1	18	20	11	13	17	79	17	15.8	4.7	28.93%	3.1	22.35%	Actr1a
IPI00123494.3	11	25	18	15	10	79	15	15.8	7.0	38.89%	4.0	28.20%	Cdh2
IPI00109727.1	16	15	17	17	14	79	16	15.8	1.0	6.25%	1.7	10.83%	Hsp110
IPI00655177.1	16	19	12	15	17	79	16	15.8	3.5	22.42%	2.5	17.16%	Hspa4
IPI00116283.1	23	12	13	14	17	79	14	15.8	6.1	38.02%	2.1	14.19%	Ngef
IPI00875011.1	13	18	14	16	18	79	16	15.8	2.6	17.64%	2.0	12.50%	Picalm
IPI00404579.1	16	13	12	17	21	79	16	15.8	2.1	15.23%	4.5	27.06%	Scg2
IPI00649950.3	18	16	13	13	19	79	16	15.8	2.5	16.06%	3.5	23.09%	Sfxn1
IPI00321190.1	15	17	17	16	14	79	16	15.8	1.2	7.07%	1.5	9.75%	Sgip1
IPI00136965.1	16	19	20	13	10	78	16	15.6	2.1	11.35%	5.1	35.80%	5730596K20Rik
IPI00222429.6	16	11	21	17	13	78	16	15.6	5.0	31.25%	4.0	23.53%	Dst
IPI00110885.1	18	11	10	24	15	78	15	15.6	4.4	33.53%	7.1	43.44%	Gphn
IPI00117910.3	18	17	11	15	17	78	17	15.6	3.8	24.69%	3.1	21.31%	Iqsec1
IPI00121575.1	17	11	14	22	14	78	14	15.6	3.0	21.43%	4.6	27.71%	Myo18a
IPI00108410.1	11	17	14	14	21	77	14	15.4	3.0	21.43%	4.0	24.74%	Acsf2
IPI00123870.1	26	0	0	0	51	77	0	15.4	15.0	173.21%	29.4	173.21%	Aldoa
IPI00658313.2	9	6	8	13	41	77	9	15.4	1.5	19.92%	17.8	86.06%	Dynll1
IPI00119500.1	17	13	22	13	12	77	13	15.4	4.5	26.01%	5.5	35.15%	Etfdh
IPI00223325.5	13	19	13	12	20	77	13	15.4	3.5	23.09%	4.4	29.06%	Hadh
IPI00123281.1	12	22	22	12	9	77	12	15.4	5.8	30.93%	6.8	47.49%	Hmgcs2
IPI00310518.3	15	18	14	11	19	77	15	15.4	2.1	13.29%	4.0	27.56%	Mtch2
IPI00311200.1	11	17	14	28	7	77	14	15.4	3.0	21.43%	10.7	65.47%	Ndufa4
IPI00137311.1	13	20	16	13	15	77	15	15.4	3.5	21.50%	1.5	10.41%	Ndufb9
IPI00515349.1	18	17	16	11	15	77	16	15.4	1.0	5.88%	2.6	18.90%	Npepps
IPI00222430.5	16	18	14	14	15	77	15	15.4	2.0	12.50%	0.6	4.03%	Oat
IPI00131472.4	18	17	12	14	15	76	15	15.2	3.2	20.52%	1.5	11.18%	Actr1b
IPI00121280.5	27	13	10	4	22	76	13	15.2	9.1	54.44%	9.2	76.38%	Mrc1
IPI00226891.1	18	18	17	12	11	76	17	15.2	0.6	3.27%	3.2	24.11%	Myo1b
IPI00116414.2	16	17	16	17	10	76	16	15.2	0.6	3.53%	3.8	26.41%	Rhot1
IPI00113214.1	21	13	5	16	21	76	16	15.2	8.0	61.54%	8.2	58.47%	S100b
IPI00651782.2	7	26	17	14	11	75	14	15.0	9.5	57.03%	3.0	21.43%	1500031I19Rik
IPI00272681.2	18	18	18	11	10	75	18	15.0	0.0	0.00%	4.4	33.53%	Hsd17b12
IPI00132623.3	21	14	16	14	10	75	14	15.0	3.6	21.21%	3.1	22.91%	Rap2c
IPI00225254.6	19	21	19	8	8	75	19	15.0	1.2	5.87%	6.4	54.44%	Sqrdl

IPI00229725.2	19	17	13	15	10	74	15	14.8	3.1	18.70%	2.5	19.87%	Atp2a3
IPI00133418.1	14	20	16	9	15	74	15	14.8	3.1	18.33%	3.8	28.39%	Decr1
IPI00128345.2	14	27	19	9	5	74	14	14.8	6.6	32.79%	7.2	65.56%	Gabbr1
IPI00459493.5	19	20	16	7	12	74	16	14.8	2.1	11.35%	4.5	38.65%	Gatm
IPI00405699.2	13	8	13	14	25	73	13	14.6	2.9	25.47%	6.7	38.41%	Actr2
IPI00128360.1	12	22	14	14	11	73	14	14.6	5.3	33.07%	1.7	13.32%	Adcy5
IPI00380717.1	8	18	9	10	28	73	10	14.6	5.5	47.21%	10.7	68.25%	Arf4
IPI00311671.4	15	19	11	12	16	73	15	14.6	4.0	26.67%	2.6	20.35%	Cyp2d22
IPI00230692.1	16	9	13	20	15	73	15	14.6	3.5	27.73%	3.6	22.53%	Dbi
IPI00750595.2	20	18	21	5	9	73	18	14.6	1.5	7.77%	8.3	71.37%	Iqgap1
IPI00624363.4	0	0	73	0	0	73	0	14.6	42.1	173.21%	42.1	173.21%	Krt7
IPI00114380.1	15	15	11	13	19	73	15	14.6	2.3	16.90%	4.2	29.05%	Palm
IPI00380997.3	14	19	18	16	6	73	16	14.6	2.6	15.56%	6.4	48.22%	Psmd2
IPI00466588.3	17	18	13	12	13	73	13	14.6	2.6	16.54%	0.6	4.56%	Vat1
IPI00649326.2	18	15	17	13	9	72	15	14.4	1.5	9.17%	4.0	30.77%	Add2
IPI00331543.1	15	22	17	14	4	72	15	14.4	3.6	20.03%	6.8	58.34%	Ccdc47
IPI00337980.5	10	24	15	13	10	72	13	14.4	7.1	43.44%	2.5	19.87%	Glod4
IPI00125929.2	15	18	15	11	13	72	15	14.4	1.7	10.83%	2.0	15.38%	Gria3
IPI00118380.2	18	16	8	19	11	72	16	14.4	5.3	37.80%	5.7	44.89%	Hp1bp3
IPI00135651.1	14	23	16	14	5	72	14	14.4	4.7	26.75%	5.9	50.22%	Itga2b
IPI00623241.3	14	19	15	9	15	72	15	14.4	2.6	16.54%	3.5	26.65%	Ntrk2
IPI00828920.1	13	29	16	6	7	71	13	14.2	8.5	43.99%	5.5	56.97%	Esam1
IPI00226932.2	10	16	11	14	20	71	14	14.2	3.2	26.06%	4.6	30.55%	Hspa1b
IPI00271951.5	15	18	10	15	13	71	15	14.2	4.0	28.20%	2.5	19.87%	Ncald
IPI00222767.1	19	13	16	11	12	71	13	14.2	3.0	18.75%	2.6	20.35%	Nos3
IPI00647986.1	16	19	18	9	8	70	16	14.0	1.5	8.65%	5.5	47.21%	Mosc2
IPI00875068.1	15	17	19	9	10	70	15	14.0	2.0	11.76%	5.5	43.48%	Ptrf
IPI00458612.5	12	11	11	17	19	70	12	14.0	0.6	5.09%	4.2	26.57%	Ttyh1
IPI00121514.3	21	12	12	14	10	69	12	13.8	5.2	34.64%	2.0	16.67%	Agk
IPI00222557.5	8	20	16	10	15	69	15	13.8	6.1	41.66%	3.2	23.52%	Dci
IPI00263638.8	14	15	14	21	5	69	14	13.8	0.6	4.03%	8.0	60.16%	Gstm5
IPI00132276.1	18	11	16	19	5	69	16	13.8	3.6	24.04%	7.4	55.28%	Lama1
IPI00468605.4	14	15	10	12	18	69	14	13.8	2.6	20.35%	4.2	31.22%	Lgi1
IPI00126186.1	21	7	12	17	12	69	12	13.8	7.1	53.21%	2.9	21.12%	Lphn1

IPI00869393.1	9	15	14	18	13	69	14	13.8	3.2	25.38%	2.6	17.64%	Mapk1
IPI00471246.2	19	14	17	11	8	69	14	13.8	2.5	15.10%	4.6	38.19%	Pdia4
IPI00264501.8	9	15	18	12	15	69	15	13.8	4.6	32.73%	3.0	20.00%	Rasal1
IPI00651798.1	11	11	21	17	9	69	11	13.8	5.8	40.28%	6.1	39.00%	RP23-298F22.4
IPI00130589.8	17	22	16	10	4	69	16	13.8	3.2	17.53%	6.0	60.00%	Sfpq
IPI00556840.1	18	17	13	12	9	69	13	13.8	2.6	16.54%	2.1	18.37%	Slc25a23
IPI00474756.1	16	13	10	19	11	69	13	13.8	3.0	23.08%	4.9	37.00%	Stip1
IPI00118787.1	15	24	12	11	7	69	12	13.8	6.2	36.74%	2.6	26.46%	Stoml2
IPI00876412.1	16	15	15	8	14	68	15	13.6	0.6	3.77%	3.8	30.70%	C230096C10Rik
IPI00466276.2	15	17	11	15	10	68	15	13.6	3.1	21.31%	2.6	22.05%	Cct3
IPI00420718.4	14	16	10	17	11	68	14	13.6	3.1	22.91%	3.8	29.89%	Cntn2
IPI00135231.2	15	7	8	26	12	68	12	13.6	4.4	43.59%	9.5	61.64%	EG667952
IPI00337844.4	12	18	16	13	9	68	13	13.6	3.1	19.92%	3.5	27.73%	Rgs7
IPI00828488.1	20	13	16	10	9	68	13	13.6	3.5	21.50%	3.8	32.45%	Rras
IPI00113606.2	12	22	14	8	12	68	12	13.6	5.3	33.07%	3.1	26.96%	Yes1
IPI00331436.4	0	0	23	44	0	67	0	13.4	13.3	173.21%	22.0	98.54%	Atp12a
IPI00129178.1	14	15	16	14	8	67	14	13.4	1.0	6.67%	4.2	32.87%	Eftud2
IPI00127415.1	15	13	11	16	12	67	13	13.4	2.0	15.38%	2.6	20.35%	Hcn2
IPI00117689.1	19	12	5	14	17	67	14	13.4	7.0	58.33%	6.2	52.04%	Ndufs7
IPI00128973.1	13	23	16	13	2	67	13	13.4	5.1	29.61%	7.4	71.33%	Npm1
IPI00132390.5	14	14	15	13	11	67	14	13.4	0.6	4.03%	2.0	15.38%	Rab21
IPI00223446.5	10	13	10	12	22	67	12	13.4	1.7	15.75%	6.4	43.83%	Stx12
IPI00121276.4	11	19	16	9	11	66	11	13.2	4.0	26.36%	3.6	30.05%	1200015F23Rik
IPI00229554.5	14	19	11	14	8	66	14	13.2	4.0	27.56%	3.0	27.27%	Abcd3
IPI00122633.3	20	13	14	14	5	66	14	13.2	3.8	24.17%	5.2	47.24%	Usp9x
IPI00120342.4	19	15	16	10	5	65	15	13.0	2.1	12.49%	5.5	53.30%	Atad1
IPI00131471.1	13	13	11	11	17	65	13	13.0	1.2	9.36%	3.5	26.65%	Dnm2
IPI00661414.2	13	16	19	13	4	65	13	13.0	3.0	18.75%	7.5	62.92%	Gm996
IPI00271986.6	16	19	12	11	7	65	12	13.0	3.5	22.42%	2.6	26.46%	Iqsec2
IPI00137313.2	23	11	15	9	7	65	11	13.0	6.1	37.41%	4.2	40.29%	Krt10
IPI00123004.3	12	14	10	17	12	65	12	13.0	2.0	16.67%	3.6	27.74%	Napg
IPI00116228.1	18	19	7	7	14	65	14	13.0	6.7	45.40%	4.0	43.30%	Scarb2
IPI00153792.1	16	15	14	4	15	64	15	12.8	1.0	6.67%	6.1	55.30%	Aldh4a1
IPI00387379.1	11	10	14	12	17	64	12	12.8	2.1	17.84%	2.5	17.56%	Clta

IPI00135686.2	14	14	13	12	11	64	13	12.8	0.6	4.22%	1.0	8.33%	Gabrg2
IPI00798492.2	13	17	15	9	10	64	13	12.8	2.0	13.33%	3.2	28.36%	Hmgcl
IPI00331174.5	11	18	14	13	8	64	13	12.8	3.5	24.50%	3.2	27.55%	Pdk3
IPI00135604.5	11	16	9	14	14	64	14	12.8	3.6	30.05%	2.9	23.41%	Prkacb
IPI00473293.1	12	20	14	6	12	64	12	12.8	4.2	27.15%	4.2	39.03%	Shank3
IPI00110721.5	16	17	13	13	5	64	13	12.8	2.1	13.58%	4.6	44.70%	Stom
IPI00313390.3	19	15	11	11	7	63	11	12.6	4.0	26.67%	2.3	23.89%	Anks1b
IPI00816879.1	13	14	19	6	11	63	13	12.6	3.2	20.96%	6.6	54.65%	Atad3a
IPI00321446.4	11	18	10	11	13	63	11	12.6	4.4	33.53%	1.5	13.48%	Atp5j2
IPI00117829.1	17	11	13	15	7	63	13	12.6	3.1	22.35%	4.2	35.69%	Cct7
IPI00742329.1	18	7	9	13	16	63	13	12.6	5.9	51.70%	3.5	27.73%	Ctsd
IPI00877232.1	9	12	9	13	20	63	12	12.6	1.7	17.32%	5.6	39.77%	Gnal
IPI00135130.3	10	14	16	15	8	63	14	12.6	3.1	22.91%	4.4	33.53%	Gria1
IPI00125960.1	14	15	15	8	11	63	14	12.6	0.6	3.94%	3.5	30.99%	Mthfd1l
IPI00126913.5	10	17	15	13	8	63	13	12.6	3.6	25.75%	3.6	30.05%	Ppp1r7
IPI00128989.1	13	22	10	14	4	63	13	12.6	6.2	41.63%	5.0	53.93%	Psma5
IPI00122865.1	14	8	15	19	7	63	14	12.6	3.8	30.70%	6.1	44.71%	Ranbp2
IPI00153990.1	16	13	15	19	0	63	15	12.6	1.5	10.41%	10.0	88.38%	Slc25a13
IPI00126827.1	16	14	13	13	7	63	13	12.6	1.5	10.66%	3.5	31.49%	Tcp1
IPI00474660.1	11	14	14	11	12	62	12	12.4	1.7	13.32%	1.5	12.39%	Cpne6
IPI00128454.1	18	19	12	8	5	62	12	12.4	3.8	23.18%	3.5	42.14%	Rpl4
IPI00114594.1	14	11	14	12	11	62	12	12.4	1.7	13.32%	1.5	12.39%	Scp2
IPI00134191.3	25	6	10	10	11	62	10	12.4	10.0	73.29%	0.6	5.59%	Slc24a2
IPI00115458.1	10	16	19	12	4	61	12	12.2	4.6	30.55%	7.5	64.33%	Cend1
IPI00408176.2	10	20	12	6	13	61	12	12.2	5.3	37.80%	3.8	36.64%	Crym
IPI00129516.1	12	12	15	13	9	61	12	12.2	1.7	13.32%	3.1	24.77%	Csnk2a1
IPI00465871.1	13	9	10	20	9	61	10	12.2	2.1	19.52%	6.1	46.79%	Fgb
IPI00466708.3	21	9	7	15	9	61	9	12.2	7.6	61.39%	4.2	40.29%	Gng2
IPI00117300.3	14	8	14	12	13	61	13	12.2	3.5	28.87%	1.0	7.69%	Grin2b
IPI00318645.6	15	12	13	10	11	61	12	12.2	1.5	11.46%	1.5	13.48%	Itga7
IPI00221998.4	12	17	13	11	8	61	12	12.2	2.6	18.90%	2.5	23.59%	Prkaca
IPI00120232.1	8	14	12	13	14	61	13	12.2	3.1	26.96%	1.0	7.69%	Rab18
IPI00131445.2	9	18	16	13	5	61	13	12.2	4.7	32.97%	5.7	50.17%	Snx22
IPI00758248.3	14	9	11	9	18	61	11	12.2	2.5	22.21%	4.7	37.31%	Sod1

IPI00129430.1	8	12	15	15	10	60	12	12.0	3.5	30.10%	2.9	21.65%	Actr3b
IPI00223987.1	14	12	14	10	10	60	12	12.0	1.2	8.66%	2.3	20.38%	Atp5j
IPI00320016.7	18	14	15	5	8	60	14	12.0	2.1	13.29%	5.1	54.98%	C330002I19Rik
IPI00881096.1	11	14	14	10	11	60	11	12.0	1.7	13.32%	2.1	17.84%	Dlg3
IPI00453821.2	17	10	9	9	15	60	10	12.0	4.4	36.32%	3.5	31.49%	Fahd2a
IPI00462752.4	12	16	12	10	10	60	12	12.0	2.3	17.32%	1.2	10.83%	Gria4
IPI00118769.2	14	9	12	12	13	60	12	12.0	2.5	21.57%	0.6	4.68%	Grin2a
IPI00469204.2	11	14	20	9	6	60	11	12.0	4.6	30.55%	7.4	63.18%	Hmox2
IPI00116558.1	16	18	13	8	5	60	13	12.0	2.5	16.06%	4.0	46.63%	Pdhx
IPI00120225.1	15	10	10	17	8	60	10	12.0	2.9	24.74%	4.7	40.51%	Slc16a1
IPI00875833.1	9	11	17	13	10	60	11	12.0	4.2	33.76%	3.5	26.34%	Tom1l2
IPI00807902.1	11	7	19	8	14	59	11	11.8	6.1	49.54%	5.5	40.30%	Acot9
IPI00224069.2	19	13	11	10	6	59	11	11.8	4.2	29.05%	2.6	29.40%	Angptl7
IPI00667471.1	17	7	6	29	0	59	7	11.8	6.1	60.83%	15.3	131.21%	Col4a1
IPI00230449.7	16	8	16	10	9	59	10	11.8	4.6	34.64%	3.8	32.45%	Itpr2
IPI00875877.1	13	14	14	12	6	59	13	11.8	0.6	4.22%	4.2	39.03%	Lrrc59
IPI00404687.5	10	13	7	19	10	59	10	11.8	3.0	30.00%	6.2	52.04%	Ndufs6
IPI00420221.3	11	20	13	15	0	59	13	11.8	4.7	32.22%	8.1	87.26%	Rac3
IPI00404551.1	9	15	13	8	13	58	13	11.6	3.1	24.77%	2.9	25.47%	Arpc2
IPI00109153.6	14	13	12	10	9	58	12	11.6	1.0	7.69%	1.5	14.78%	Bcs1
IPI00775867.1	13	16	15	9	5	58	13	11.6	1.5	10.41%	5.0	52.07%	Cav1
IPI00341550.1	13	13	12	10	10	58	12	11.6	0.6	4.56%	1.2	10.83%	Cd47
IPI00623284.4	17	11	13	9	8	58	11	11.6	3.1	22.35%	2.6	26.46%	Ddost
IPI00322033.7	11	17	9	11	10	58	11	11.6	4.2	33.76%	1.0	10.00%	Dhrs1
IPI00620582.1	14	10	12	13	9	58	12	11.6	2.0	16.67%	2.1	18.37%	Dnajc11
IPI00125681.4	17	9	9	14	9	58	9	11.6	4.6	39.59%	2.9	27.06%	Grin1
IPI00468924.5	12	15	10	11	10	58	11	11.6	2.5	20.40%	0.6	5.59%	Igf1r
IPI00131771.3	21	8	12	6	11	58	11	11.6	6.7	48.72%	3.2	33.25%	LOC433157
IPI00112986.1	8	17	12	8	13	58	12	11.6	4.5	36.56%	2.6	24.05%	Mecr
IPI00754876.2	11	14	13	11	9	58	11	11.6	1.5	12.06%	2.0	18.18%	Ptprf
IPI00776169.1	14	13	5	24	2	58	13	11.6	4.9	46.25%	11.9	115.46%	Tinagl
IPI00268673.5	11	15	14	11	6	57	11	11.4	2.1	15.61%	4.0	39.11%	Dync1li1
IPI00122399.1	10	3	9	13	22	57	10	11.4	3.8	51.63%	6.7	45.40%	ENSMUSG00000075245
IPI00406901.2	14	16	15	4	8	57	14	11.4	1.0	6.67%	5.6	61.86%	Glg1

IPI00119663.3	6	11	11	13	16	57	11	11.4	2.9	30.93%	2.5	18.87%	Gpr158
IPI00134476.2	11	20	9	11	6	57	11	11.4	5.9	43.95%	2.5	29.04%	Gpsn2
IPI00115117.1	10	14	11	8	14	57	11	11.4	2.1	17.84%	3.0	27.27%	Gyk
IPI00118895.1	11	17	14	6	9	57	11	11.4	3.0	21.43%	4.0	41.81%	mt-Nd1
IPI00420870.4	14	10	7	9	17	57	10	11.4	3.5	33.99%	5.3	48.10%	Myl9
IPI00875100.1	13	8	12	8	16	57	12	11.4	2.6	24.05%	4.0	33.33%	Ndufa11
IPI00553576.3	15	9	4	15	14	57	14	11.4	5.5	59.01%	6.1	55.30%	Ndufs5
IPI00463468.3	7	21	14	8	7	57	8	11.4	7.0	50.00%	3.8	39.16%	Pfn1
IPI00555114.1	14	13	12	8	10	57	12	11.4	1.0	7.69%	2.0	20.00%	Ptges2
IPI00134131.2	14	9	13	11	10	57	11	11.4	2.6	22.05%	1.5	13.48%	Slc9a3r1
IPI00331663.6	14	14	8	10	11	57	11	11.4	3.5	28.87%	1.5	15.80%	Syt7
IPI00116770.1	9	10	14	12	12	57	12	11.4	2.6	24.05%	1.2	9.12%	Ttc7b
IPI00230185.5	6	11	10	20	10	57	10	11.4	2.6	29.40%	5.8	43.30%	Uqcrq
IPI00874996.1	18	11	11	10	6	56	11	11.2	4.0	30.31%	2.6	29.40%	Apoo
IPI00458583.3	16	5	7	10	18	56	10	11.2	5.9	62.78%	5.7	48.74%	Arl8b
IPI00115454.3	11	5	9	16	15	56	11	11.2	3.1	36.66%	3.8	28.39%	Arpc1a
IPI00761241.2	11	12	10	13	10	56	11	11.2	1.0	9.09%	1.7	15.75%	Atp6v1d
IPI00129924.6	15	7	10	14	10	56	10	11.2	4.0	37.89%	2.3	20.38%	Cacna2d2
IPI00119575.3	17	15	13	6	5	56	13	11.2	2.0	13.33%	4.4	54.49%	Dock9
IPI00177038.1	14	6	13	14	9	56	13	11.2	4.4	39.63%	2.6	22.05%	Etfb
IPI00114671.1	8	17	13	9	9	56	9	11.2	4.5	35.60%	2.3	22.35%	Fyn
IPI00127472.2	20	9	5	9	13	56	9	11.2	7.8	68.54%	4.0	44.44%	Gad2
IPI00323748.2	8	12	12	6	18	56	12	11.2	2.3	21.65%	6.0	50.00%	Ivd
IPI00312174.6	14	8	14	11	9	56	11	11.2	3.5	28.87%	2.5	22.21%	Neo1
IPI00127987.1	13	13	11	13	6	56	13	11.2	1.2	9.36%	3.6	36.06%	Nlgn2
IPI00111412.3	11	11	12	11	11	56	11	11.2	0.6	5.09%	0.6	5.09%	Shank1
IPI00457611.2	12	14	9	13	8	56	12	11.2	2.5	21.57%	2.6	26.46%	Slc6a17
IPI00116154.2	14	10	10	12	10	56	10	11.2	2.3	20.38%	1.2	10.83%	Sorbs1
IPI00281761.3	13	8	15	14	6	56	13	11.2	3.6	30.05%	4.9	42.28%	Stxbp5
IPI00125460.1	14	8	13	12	8	55	12	11.0	3.2	27.55%	2.6	24.05%	Acsl1
IPI00323442.8	11	15	13	9	7	55	11	11.0	2.0	15.38%	3.1	31.60%	Aldh1a1
IPI00128986.1	17	9	9	9	11	55	9	11.0	4.6	39.59%	1.2	11.95%	Cadps2
IPI00229256.5	14	11	15	10	5	55	11	11.0	2.1	15.61%	5.0	50.00%	Cct4
IPI00651878.1	12	14	12	7	10	55	12	11.0	1.2	9.12%	2.5	26.03%	Dbn1

IPI00314069.1	11	12	12	11	9	55	11	11.0	0.6	4.95%	1.5	14.32%	Dstn
IPI00165688.2	13	11	10	12	9	55	11	11.0	1.5	13.48%	1.5	14.78%	Ggtla1
IPI00154004.1	9	13	9	19	5	55	9	11.0	2.3	22.35%	7.2	65.56%	Hapln1
IPI00474705.2	13	9	9	14	10	55	10	11.0	2.3	22.35%	2.6	24.05%	Hcn1
IPI00337050.1	13	9	13	15	5	55	13	11.0	2.3	19.79%	5.3	48.10%	Idh1
IPI00672663.1	13	13	10	15	4	55	13	11.0	1.7	14.43%	5.5	56.97%	Kif5c
IPI00129159.1	11	12	8	14	10	55	11	11.0	2.1	20.15%	3.1	28.64%	Qdpr
IPI00853905.2	11	16	9	11	8	55	11	11.0	3.6	30.05%	1.5	16.37%	Rph3a
IPI00111158.2	13	13	10	10	8	54	10	10.8	1.7	14.43%	1.2	12.37%	Abcb7
IPI00122826.1	10	12	12	12	8	54	12	10.8	1.2	10.19%	2.3	21.65%	Aldh1b1
IPI00108783.1	9	7	6	7	25	54	7	10.8	1.5	20.83%	10.7	84.42%	Ap2s1
IPI00283600.2	9	8	18	12	7	54	9	10.8	5.5	47.21%	5.5	44.66%	Arfgap1
IPI00331361.2	7	11	18	7	11	54	11	10.8	5.6	46.40%	5.6	46.40%	Cds2
IPI00116277.3	7	17	11	14	5	54	11	10.8	5.0	43.14%	4.6	45.83%	Cse1l
IPI00118654.2	14	14	17	5	4	54	14	10.8	1.7	11.55%	7.2	83.47%	Dtnb
IPI00116688.1	5	13	16	14	6	54	13	10.8	5.7	50.17%	5.3	44.10%	Lama4
IPI00117811.3	12	13	8	11	10	54	11	10.8	2.6	24.05%	1.5	15.80%	Mgll
IPI00127447.3	6	10	10	13	15	54	10	10.8	2.3	26.65%	2.5	19.87%	Nup155
IPI00121440.4	12	9	13	15	5	54	12	10.8	2.1	18.37%	5.3	48.10%	Ptpra
IPI00127492.1	0	0	54	0	0	54	0	10.8	31.2	173.21%	31.2	173.21%	Slc25a31
IPI00387580.1	14	17	10	5	8	54	10	10.8	3.5	25.70%	2.5	32.83%	Tmem24
IPI00381088.5	16	9	9	6	14	54	9	10.8	4.0	35.66%	4.0	41.81%	Vps35
IPI00230005.3	11	8	11	14	9	53	11	10.6	1.7	17.32%	2.5	22.21%	2310001A20Rik
IPI00653841.1	9	14	14	11	5	53	11	10.6	2.9	23.41%	4.6	45.83%	Ckap4
IPI00313539.4	8	13	9	12	11	53	11	10.6	2.6	26.46%	1.5	14.32%	Cox6c
IPI00127050.1	12	14	13	8	6	53	12	10.6	1.0	7.69%	3.6	40.06%	Cyp46a1
IPI00626662.3	8	13	9	12	11	53	11	10.6	2.6	26.46%	1.5	14.32%	EG621837
IPI00127942.4	12	14	11	11	5	53	11	10.6	1.5	12.39%	3.5	38.49%	Gpd1
IPI00108388.1	8	8	13	18	6	53	8	10.6	2.9	29.86%	6.0	48.87%	Lamb1-1
IPI00320462.4	12	13	10	16	2	53	12	10.6	1.5	13.09%	7.0	75.25%	Mybbp1a
IPI00468999.4	17	6	5	14	11	53	11	10.6	6.7	71.34%	4.6	45.83%	Slc17a7
IPI00331609.7	11	14	15	9	4	53	11	10.6	2.1	15.61%	5.5	59.01%	Slc25a24
IPI00113073.3	8	11	13	9	12	53	11	10.6	2.5	23.59%	2.1	18.37%	Slc2a3
IPI00623995.3	8	12	12	10	11	53	11	10.6	2.3	21.65%	1.0	9.09%	Trio

IPI00153840.2	11	11	12	7	11	52	11	10.4	0.6	5.09%	2.6	26.46%	A930041I02Rik
IPI00719919.2	13	8	7	7	17	52	8	10.4	3.2	34.44%	5.8	55.87%	Acadsb
IPI00135443.2	13	9	9	10	11	52	10	10.4	2.3	22.35%	1.0	10.00%	Arl6ip5
IPI00309322.3	8	8	10	8	18	52	8	10.4	1.2	13.32%	5.3	44.10%	Cplx2
IPI00223047.2	13	10	12	11	6	52	11	10.4	1.5	13.09%	3.2	33.25%	Ddx1
IPI00459279.2	13	7	8	14	10	52	10	10.4	3.2	34.44%	3.1	28.64%	Endogl1
IPI00118692.6	13	8	14	9	8	52	9	10.4	3.2	27.55%	3.2	31.11%	Gad1
IPI00116697.1	6	14	9	10	13	52	10	10.4	4.0	41.81%	2.1	19.52%	Gpm6b
IPI00121634.1	11	12	13	7	9	52	11	10.4	1.0	8.33%	3.1	31.60%	Hpcal1
IPI00469194.2	9	13	12	10	8	52	10	10.4	2.1	18.37%	2.0	20.00%	Me2
IPI00828306.2	8	14	12	10	8	52	10	10.4	3.1	26.96%	2.0	20.00%	Oxr1
IPI00112032.1	10	14	12	9	7	52	10	10.4	2.0	16.67%	2.5	26.96%	Rims1
IPI00131995.1	12	19	9	9	3	52	9	10.4	5.1	38.49%	3.5	49.49%	Slc27a4
IPI00265386.5	10	12	10	11	9	52	10	10.4	1.2	10.83%	1.0	10.00%	Slc4a8
IPI00122011.2	7	11	11	19	4	52	11	10.4	2.3	23.89%	7.5	66.23%	Top2b
IPI00678532.3	9	10	11	10	12	52	10	10.4	1.0	10.00%	1.0	9.09%	Vamp1
IPI00123199.1	13	8	8	8	14	51	8	10.2	2.9	29.86%	3.5	34.64%	Cyb5b
IPI00110264.2	6	13	13	9	10	51	10	10.2	4.0	37.89%	2.1	19.52%	Dnaja1
IPI00468140.2	10	12	9	6	14	51	10	10.2	1.5	14.78%	4.0	41.81%	Farp1
IPI00121443.1	9	16	10	9	7	51	9	10.2	3.8	32.45%	1.5	17.63%	Itgav
IPI00880817.1	11	15	13	6	6	51	11	10.2	2.0	15.38%	4.0	48.50%	Lnpep
IPI00111416.1	12	6	9	13	11	51	11	10.2	3.0	33.33%	2.0	18.18%	Mpdz
IPI00874973.1	13	13	12	7	6	51	12	10.2	0.6	4.56%	3.2	38.57%	Ndrg1
IPI00664176.1	10	10	11	13	7	51	10	10.2	0.6	5.59%	3.1	29.57%	Phgdh
IPI00131881.1	14	10	9	11	7	51	10	10.2	2.6	24.05%	2.0	22.22%	Sept9
IPI00109311.3	9	11	10	16	5	51	10	10.2	1.0	10.00%	5.5	53.30%	Tomm40
IPI00848866.1	9	15	12	12	3	51	12	10.2	3.0	25.00%	5.2	57.74%	Ubqln2
IPI00119785.2	8	13	9	9	11	50	9	10.0	2.6	26.46%	1.2	11.95%	Cbr1
IPI00115620.1	8	10	10	22	0	50	10	10.0	1.2	12.37%	11.0	103.27%	Col4a2
IPI00648927.1	12	6	12	13	7	50	12	10.0	3.5	34.64%	3.2	30.14%	ENSMUSG00000058126
IPI00136350.3	12	10	12	5	11	50	11	10.0	1.2	10.19%	3.8	40.56%	Erbb2ip
IPI00121322.2	10	7	7	13	13	50	10	10.0	1.7	21.65%	3.5	31.49%	Mapre3
IPI00318204.5	10	14	12	7	7	50	10	10.0	2.0	16.67%	2.9	33.31%	Mtap4
IPI00828670.2	10	7	9	11	13	50	10	10.0	1.5	17.63%	2.0	18.18%	Mut

IPI00380983.3	17	17	13	3	0	50	13	10.0	2.3	14.74%	6.8	127.63%	Myef2
IPI00122353.1	13	11	7	15	4	50	11	10.0	3.1	29.57%	5.7	65.61%	Myo6
IPI00120030.1	10	8	8	12	12	50	10	10.0	1.2	13.32%	2.3	21.65%	Otub1
IPI00339916.9	14	9	10	10	7	50	10	10.0	2.6	24.05%	1.7	19.25%	Plxna2
IPI00351827.6	8	8	9	11	14	50	9	10.0	0.6	6.93%	2.5	22.21%	Prdx1
IPI00132208.1	12	10	11	7	10	50	10	10.0	1.0	9.09%	2.1	22.30%	Tagln3
IPI00420745.7	14	11	12	7	6	50	11	10.0	1.5	12.39%	3.2	38.57%	Ubxd8
IPI00228693.4	12	10	11	8	9	50	10	10.0	1.0	9.09%	1.5	16.37%	Unc13a
IPI00757097.2	16	8	12	8	5	49	8	9.8	4.0	33.33%	3.5	42.14%	Abhd6
IPI00468380.4	8	16	9	6	10	49	9	9.8	4.4	39.63%	2.1	24.98%	Ak3
IPI00125939.2	11	11	10	8	9	49	10	9.8	0.6	5.41%	1.0	11.11%	Ak3l1
IPI00314191.6	11	12	7	10	9	49	10	9.8	2.6	26.46%	1.5	17.63%	Ap3d1
IPI00331549.1	13	8	11	11	6	49	11	9.8	2.5	23.59%	2.9	30.93%	Chchd6
IPI00322760.7	10	8	9	8	14	49	9	9.8	1.0	11.11%	3.2	31.11%	Cox6a1
IPI00626950.2	7	18	9	11	4	49	9	9.8	5.9	51.70%	3.6	45.07%	Grm2
IPI00321320.3	14	8	14	13	0	49	13	9.8	3.5	28.87%	7.8	86.78%	LOC100045332
IPI00117929.1	11	5	5	9	19	49	9	9.8	3.5	49.49%	7.2	65.56%	Mtx2
IPI00313222.5	14	9	16	8	2	49	9	9.8	3.6	27.74%	7.0	81.04%	Nono
IPI00118978.4	12	13	0	14	10	49	12	9.8	7.2	86.81%	7.2	90.14%	Prkca
IPI00108685.3	11	4	11	15	8	49	11	9.8	4.0	46.63%	3.5	30.99%	Psat1
IPI00230003.7	6	14	15	7	7	49	7	9.8	4.9	42.28%	4.6	47.78%	Ptplad1
IPI00129253.2	12	14	10	13	0	49	12	9.8	2.0	16.67%	6.8	88.79%	Sf3b3
IPI00662342.3	13	17	8	5	6	49	8	9.8	4.5	35.60%	1.5	24.12%	Slc27a1
IPI00120097.1	12	14	11	7	5	49	11	9.8	1.5	12.39%	3.1	39.85%	Stxbp5l
IPI00225961.5	8	8	9	15	9	49	9	9.8	0.6	6.93%	3.5	31.49%	Vcan
IPI00111181.1	17	7	8	5	11	48	8	9.6	5.5	51.63%	3.0	37.50%	5230400G24Rik
IPI00225209.1	16	12	9	3	8	48	9	9.6	3.5	28.47%	3.2	48.22%	Abcg2
IPI00338452.3	9	11	10	11	7	48	10	9.6	1.0	10.00%	2.1	22.30%	Bphl
IPI00467661.3	16	10	6	11	5	48	10	9.6	5.0	47.19%	3.2	43.83%	EG629383
IPI00136251.1	16	7	9	10	6	48	9	9.6	4.7	44.30%	2.1	24.98%	Entpd1
IPI00118191.2	14	9	7	12	6	48	9	9.6	3.6	36.06%	3.2	38.57%	Exoc4
IPI00121788.1	10	11	8	14	5	48	10	9.6	1.5	15.80%	4.6	50.92%	Gng3
IPI00315135.3	10	14	11	5	8	48	10	9.6	2.1	17.84%	3.0	37.50%	Ly75
IPI00420185.1	10	14	6	9	9	48	9	9.6	4.0	40.00%	1.7	21.65%	Mpst

IPI00224740.6	12	7	7	6	16	48	7	9.6	2.9	33.31%	5.5	56.97%	Ppp2r2a
IPI00116394.1	14	7	9	12	6	48	9	9.6	3.6	36.06%	3.0	33.33%	Ranbp5
IPI00331490.5	11	19	6	8	4	48	8	9.6	6.6	54.65%	2.0	33.33%	Rpl12
IPI00111151.2	10	6	10	17	5	48	10	9.6	2.3	26.65%	6.0	56.51%	Vwa1
IPI00221769.5	13	7	9	6	12	47	9	9.4	3.1	31.60%	3.0	33.33%	Car4
IPI00109044.8	11	8	11	8	9	47	9	9.4	1.7	17.32%	1.5	16.37%	Cpne9
IPI00118821.2	11	7	15	7	7	47	7	9.4	4.0	36.36%	4.6	47.78%	Cpt2
IPI00134621.3	13	13	11	6	4	47	11	9.4	1.2	9.36%	3.6	51.51%	Dbt
IPI00115708.1	10	11	16	5	5	47	10	9.4	3.2	26.06%	6.4	73.28%	Ddx3x
IPI00121627.3	14	7	7	10	9	47	9	9.4	4.0	43.30%	1.5	17.63%	Eps15l1
IPI00311443.1	13	12	9	6	7	47	9	9.4	2.1	18.37%	1.5	20.83%	Gucy1a2
IPI00316740.4	10	9	12	10	6	47	10	9.4	1.5	14.78%	3.1	32.73%	Kif5b
IPI00109672.3	6	8	12	11	10	47	10	9.4	3.1	35.25%	1.0	9.09%	Ogt
IPI00468691.3	5	14	16	9	3	47	9	9.4	5.9	50.22%	6.5	69.71%	Pdcd6ip
IPI00119131.2	12	9	12	9	5	47	9	9.4	1.7	15.75%	3.5	40.52%	Pde10a
IPI00387421.1	19	9	6	9	4	47	9	9.4	6.8	60.06%	2.5	39.74%	Rpl7
IPI00856692.1	10	12	11	9	5	47	10	9.4	1.0	9.09%	3.1	36.66%	Scn1a
IPI00474157.4	9	9	9	11	9	47	9	9.4	0.0	0.00%	1.2	11.95%	Slc12a6
IPI00468960.1	11	8	8	14	6	47	8	9.4	1.7	19.25%	4.2	44.61%	Srgap3
IPI00133399.1	9	9	14	7	8	47	9	9.4	2.9	27.06%	3.8	39.16%	Trap1
IPI00116254.1	13	6	11	8	8	46	8	9.2	3.6	36.06%	1.7	19.25%	Ccdc141
IPI00751834.1	7	17	9	9	4	46	9	9.2	5.3	48.10%	2.9	39.36%	Eef1g
IPI00323483.3	6	12	13	7	8	46	8	9.2	3.8	36.64%	3.2	34.44%	Map2k1
IPI00308484.3	12	11	10	6	7	46	10	9.2	1.0	9.09%	2.1	27.15%	Nbea
IPI00135475.3	8	8	12	18	0	46	8	9.2	2.3	24.74%	9.2	91.65%	Nid2
IPI00719950.2	11	12	10	6	7	46	10	9.2	1.0	9.09%	2.1	27.15%	Prodh
IPI00556814.3	11	11	14	10	0	46	11	9.2	1.7	14.43%	7.2	90.14%	Rab6
IPI00336291.6	9	16	7	9	5	46	9	9.2	4.7	44.30%	2.0	28.57%	Rpl6
IPI00620804.2	10	12	10	10	4	46	10	9.2	1.2	10.83%	3.5	43.30%	Sf3b1
IPI00112414.1	11	6	6	12	11	46	11	9.2	2.9	37.65%	3.2	33.25%	Slc17a6
IPI00129268.1	9	12	10	11	4	46	10	9.2	1.5	14.78%	3.8	45.43%	Sntb2
IPI00130535.1	11	6	12	11	6	46	11	9.2	3.2	33.25%	3.2	33.25%	Tpp2
IPI00315794.1	13	10	7	8	8	46	8	9.2	3.0	30.00%	0.6	7.53%	Txndc14
IPI00224697.1	7	13	13	6	6	45	7	9.0	3.5	31.49%	4.0	48.50%	1110031B06Rik

IPI00626660.3	8	17	8	5	7	45	8	9.0	5.2	47.24%	1.5	22.91%	Acaa1b
IPI00129512.3	14	7	12	6	6	45	7	9.0	3.6	32.78%	3.5	43.30%	Agpat3
IPI00875405.1	7	15	5	12	6	45	7	9.0	5.3	58.79%	3.8	49.38%	Arpc3
IPI00312244.3	7	19	9	10	0	45	9	9.0	6.4	55.11%	5.5	86.96%	Bat5
IPI00828649.1	11	5	12	13	4	45	11	9.0	3.8	40.56%	4.9	51.03%	Cadm4
IPI00313750.3	11	11	8	11	4	45	11	9.0	1.7	17.32%	3.5	45.81%	Capza1
IPI00118173.1	12	10	8	9	6	45	9	9.0	2.0	20.00%	1.5	19.92%	Cdipt
IPI00126085.1	7	8	18	12	0	45	8	9.0	6.1	55.30%	9.2	91.65%	Des
IPI00831546.1	7	15	11	8	4	45	8	9.0	4.0	36.36%	3.5	45.81%	Dgke
IPI00387374.1	8	15	9	5	8	45	8	9.0	3.8	35.49%	2.1	28.39%	Erlin2
IPI00279079.1	9	10	10	11	5	45	10	9.0	0.6	5.97%	3.2	37.09%	Fbxo41
IPI00129959.2	12	9	10	5	9	45	9	9.0	1.5	14.78%	2.6	33.07%	Ppa2
IPI00114667.1	10	8	11	8	8	45	8	9.0	1.5	15.80%	1.7	19.25%	Psd3
IPI00278804.1	11	8	12	8	6	45	8	9.0	2.1	20.15%	3.1	35.25%	Rras2
IPI00119896.2	9	11	12	9	4	45	9	9.0	1.5	14.32%	4.0	48.50%	Ruvbl1
IPI00127172.3	8	8	11	11	7	45	8	9.0	1.7	19.25%	2.3	23.89%	Sept2
IPI00121623.1	8	12	10	6	9	45	9	9.0	2.0	20.00%	2.1	24.98%	Shank2
IPI00654342.2	10	17	10	8	0	45	10	9.0	4.0	32.77%	5.3	88.19%	Slc7a1
IPI00121576.2	7	7	11	11	9	45	9	9.0	2.3	27.71%	1.2	11.17%	Tomm22
IPI00626994.3	8	10	14	8	5	45	8	9.0	3.1	28.64%	4.6	50.92%	Txndc5
IPI00137194.1	7	8	9	9	12	45	9	9.0	1.0	12.50%	1.7	17.32%	Wdr1
IPI00133224.1	7	12	12	10	3	44	10	8.8	2.9	27.94%	4.7	56.71%	2810459M11Rik
IPI00652316.4	8	13	6	10	7	44	8	8.8	3.6	40.06%	2.1	27.15%	Acox1
IPI00775948.1	13	5	8	10	8	44	8	8.8	4.0	46.63%	1.2	13.32%	Adam23
IPI00126716.3	10	12	9	8	5	44	9	8.8	1.5	14.78%	2.1	28.39%	Arvcf
IPI00756786.1	9	10	11	8	6	44	9	8.8	1.0	10.00%	2.5	30.20%	Atp9a
IPI00132762.1	9	11	9	8	7	44	9	8.8	1.2	11.95%	1.0	12.50%	Calb1
IPI00470004.3	11	9	12	9	3	44	9	8.8	1.5	14.32%	4.6	57.28%	Cct8
IPI00116112.3	10	9	12	9	4	44	9	8.8	1.5	14.78%	4.0	48.50%	Cd38
IPI00266188.6	8	13	8	9	6	44	8	8.8	2.9	29.86%	1.5	19.92%	Coro1c
IPI00162949.1	13	5	11	9	6	44	9	8.8	4.2	43.07%	2.5	29.04%	Dnaja2
IPI00754880.3	10	11	9	8	6	44	9	8.8	1.0	10.00%	1.5	19.92%	Dnajb6
IPI00331552.4	6	10	8	17	3	44	8	8.8	2.0	25.00%	7.1	76.01%	Eif4a3
IPI00121038.2	9	11	12	8	4	44	9	8.8	1.5	14.32%	4.0	50.00%	Endod1

IPI00467530.3	7	13	10	8	6	44	8	8.8	3.0	30.00%	2.0	25.00%	Fermt2
IPI00228343.4	7	15	11	8	3	44	8	8.8	4.0	36.36%	4.0	55.11%	Ilvbl
IPI00410819.3	10	5	11	12	6	44	10	8.8	3.2	37.09%	3.2	33.25%	Klc1
IPI00225307.1	7	11	12	6	8	44	8	8.8	2.6	26.46%	3.1	35.25%	Mpp1
IPI00230035.7	6	10	10	12	6	44	10	8.8	2.3	26.65%	3.1	32.73%	N28178
IPI00120066.5	11	9	6	6	12	44	9	8.8	2.5	29.04%	3.5	43.30%	Pecam1
IPI00331163.9	11	13	10	6	4	44	10	8.8	1.5	13.48%	3.1	45.83%	Ptprg
IPI00130339.3	10	7	9	11	7	44	9	8.8	1.5	17.63%	2.0	22.22%	Sh3glb2
IPI00462251.3	5	9	12	8	10	44	9	8.8	3.5	40.52%	2.0	20.00%	Smpd3
IPI00133985.1	11	6	11	8	7	43	8	8.6	2.9	30.93%	2.1	24.02%	Clasp2
IPI00387227.1	9	7	11	7	9	43	9	8.6	2.0	22.22%	2.0	22.22%	Daam1
IPI00307966.3	3	14	9	8	9	43	9	8.6	5.5	63.55%	0.6	6.66%	Dctn2
IPI00119024.3	7	7	9	10	10	43	9	8.6	1.2	15.06%	0.6	5.97%	Fabp5
IPI00622837.1	7	11	12	11	2	43	11	8.6	2.6	26.46%	5.5	66.09%	Hnrnpu
IPI00265467.3	8	11	12	7	5	43	8	8.6	2.1	20.15%	3.6	45.07%	Lpgat1
IPI00313899.4	6	11	9	10	7	43	9	8.6	2.5	29.04%	1.5	17.63%	Ndufa6
IPI00124820.2	8	12	8	8	7	43	8	8.6	2.3	24.74%	0.6	7.53%	Ppt1
IPI00662157.2	11	12	8	6	6	43	8	8.6	2.1	20.15%	1.2	17.32%	Sbf1
IPI00224210.5	6	8	12	9	8	43	8	8.6	3.1	35.25%	2.1	21.53%	Src
IPI00323822.1	7	12	7	6	11	43	7	8.6	2.9	33.31%	2.6	33.07%	Vapb
IPI00471372.2	10	13	9	6	4	42	9	8.4	2.1	19.52%	2.5	39.74%	0710008K08Rik
IPI00276926.3	9	13	6	10	4	42	9	8.4	3.5	37.63%	3.1	45.83%	2310035C23Rik
IPI00654178.1	10	8	11	5	8	42	8	8.4	1.5	15.80%	3.0	37.50%	Ace
IPI00469268.5	6	10	9	7	10	42	9	8.4	2.1	24.98%	1.5	17.63%	Acot7
IPI00330039.3	14	5	9	7	7	42	7	8.4	4.5	48.31%	1.2	15.06%	Cacnb4
IPI00129535.1	9	5	7	8	13	42	8	8.4	2.0	28.57%	3.2	34.44%	Ddah1
IPI00113377.1	8	13	11	6	4	42	8	8.4	2.5	23.59%	3.6	51.51%	Erp29
IPI00857195.1	13	10	9	10	0	42	10	8.4	2.1	19.52%	5.5	86.96%	Fxyd6
IPI00331066.6	7	8	9	10	8	42	8	8.4	1.0	12.50%	1.0	11.11%	Ggtl3
IPI00224575.1	13	8	8	5	8	42	8	8.4	2.9	29.86%	1.7	24.74%	Gpx1
IPI00457485.2	12	7	11	12	0	42	11	8.4	2.6	26.46%	6.7	86.85%	Hnrnpa2b1
IPI00118963.1	13	13	13	3	0	42	13	8.4	0.0	0.00%	6.8	127.63%	Krt76
IPI00411109.4	10	9	9	8	6	42	9	8.4	0.6	6.19%	1.5	19.92%	Nap1l1
IPI00627008.2	9	8	7	11	7	42	8	8.4	1.0	12.50%	2.3	27.71%	Nf1

IPI00658782.4	12	8	9	11	2	42	9	8.4	2.1	21.53%	4.7	64.44%	Pabpc1
IPI00265568.6	10	7	5	12	8	42	8	8.4	2.5	34.32%	3.5	42.14%	Pafah1b2
IPI00387392.4	9	8	6	11	8	42	8	8.4	1.5	19.92%	2.5	30.20%	Pdxk
IPI00134961.1	13	8	9	7	5	42	8	8.4	2.6	26.46%	2.0	28.57%	Prkcsh
IPI00111501.1	6	13	8	9	6	42	8	8.4	3.6	40.06%	1.5	19.92%	Ptprz1
IPI00137618.1	9	9	7	11	6	42	9	8.4	1.2	13.86%	2.6	33.07%	Sars
IPI00720013.2	9	10	6	8	9	42	9	8.4	2.1	24.98%	1.5	19.92%	Scamp1
IPI00125807.3	11	11	3	14	3	42	11	8.4	4.6	55.43%	6.4	95.26%	Slc23a2
IPI00120295.1	13	9	7	8	5	42	8	8.4	3.1	31.60%	1.5	22.91%	Stxbp3a
IPI00664670.4	8	15	7	9	3	42	8	8.4	4.4	43.59%	3.1	48.24%	Surf4
IPI00331318.2	9	4	7	14	7	41	7	8.2	2.5	37.75%	4.0	43.30%	0910001A06Rik
IPI00465999.5	9	0	9	13	10	41	9	8.2	5.2	86.60%	2.1	19.52%	2900073G15Rik
IPI00776230.1	13	8	6	6	8	41	8	8.2	3.6	40.06%	1.2	17.32%	Aoc3
IPI00130661.1	6	15	8	6	6	41	6	8.2	4.7	48.89%	1.2	17.32%	Arhgdia
IPI00474125.3	14	12	5	10	0	41	10	8.2	4.7	45.73%	5.0	100.00%	Atp6ap1
IPI00230194.5	11	8	9	11	2	41	9	8.2	1.5	16.37%	4.7	64.44%	Clptm1
IPI00555125.1	11	6	10	11	3	41	10	8.2	2.6	29.40%	4.4	54.49%	Ddb1
IPI00153642.1	13	12	7	5	4	41	7	8.2	3.2	30.14%	1.5	28.64%	Epb4.1
IPI00458870.3	10	10	13	6	2	41	10	8.2	1.7	15.75%	5.6	79.54%	Eprs
IPI00113845.1	9	8	6	13	5	41	8	8.2	1.5	19.92%	4.4	54.49%	Gpd1l
IPI00876001.1	11	11	0	19	0	41	11	8.2	6.4	86.60%	11.0	173.21%	Gstm7
IPI00117214.2	9	11	5	8	8	41	8	8.2	3.1	36.66%	1.7	24.74%	Hip1
IPI00115949.1	9	4	11	7	10	41	9	8.2	3.6	45.07%	2.1	22.30%	Homer1
IPI00407863.5	11	7	8	7	8	41	8	8.2	2.1	24.02%	0.6	7.53%	Hsdl2
IPI00221540.1	8	11	8	11	3	41	8	8.2	1.7	19.25%	4.0	55.11%	Htt
IPI00118832.1	8	11	8	9	5	41	8	8.2	1.7	19.25%	2.1	28.39%	Igsf21
IPI00467338.4	8	9	6	7	11	41	8	8.2	1.5	19.92%	2.6	33.07%	Kalrn
IPI00122139.3	12	5	13	8	3	41	8	8.2	4.4	43.59%	5.0	62.50%	Llgl1
IPI00465880.4	11	6	6	7	11	41	7	8.2	2.9	37.65%	2.6	33.07%	LOC100044630
IPI00857354.1	12	4	11	8	6	41	8	8.2	4.4	48.43%	2.5	30.20%	Mapre2
IPI00762435.2	7	11	11	9	3	41	9	8.2	2.3	23.89%	4.2	54.30%	Prdx4
IPI00115429.1	12	7	5	9	8	41	8	8.2	3.6	45.07%	2.1	28.39%	Psma2
IPI00123534.1	9	11	9	8	4	41	9	8.2	1.2	11.95%	2.6	37.80%	Rhog
IPI00459309.2	10	9	7	6	9	41	9	8.2	1.5	17.63%	1.5	20.83%	Slc25a25

IPI00163011.2	10	9	9	7	6	41	9	8.2	0.6	6.19%	1.5	20.83%	Steap3
IPI00121218.5	9	5	10	7	10	41	9	8.2	2.6	33.07%	1.7	19.25%	Tmed10
IPI00117167.2	11	8	9	8	4	40	8	8.0	1.5	16.37%	2.6	37.80%	Ablim1
IPI00119130.1	9	7	8	11	5	40	8	8.0	1.0	12.50%	3.0	37.50%	Add3
IPI00227236.2	8	5	8	9	10	40	8	8.0	1.7	24.74%	1.0	11.11%	Caskin1
IPI00624098.1	10	7	7	7	9	40	7	8.0	1.7	21.65%	1.2	15.06%	Cldn11
IPI00129362.1	11	10	9	3	7	40	9	8.0	1.0	10.00%	3.1	48.24%	Dagla
IPI00321386.2	12	4	7	9	8	40	8	8.0	4.0	52.71%	1.0	12.50%	Erc2
IPI00850694.2	8	12	11	4	5	40	8	8.0	2.1	20.15%	3.8	56.79%	Fech
IPI00762862.3	10	8	3	9	10	40	9	8.0	3.6	51.51%	3.8	51.63%	Mfn2
IPI00172234.3	10	10	9	9	2	40	9	8.0	0.6	5.97%	4.0	60.62%	Nol5
IPI00283511.1	11	0	5	7	17	40	7	8.0	5.5	103.27%	6.4	66.51%	Pea15a
IPI00649277.2	15	8	6	6	5	40	6	8.0	4.7	48.89%	0.6	10.19%	Ppp2r5c
IPI00170387.1	5	12	8	15	0	40	8	8.0	3.5	42.14%	7.5	97.90%	Rangap1
IPI00133218.3	7	4	9	10	10	40	9	8.0	2.5	37.75%	0.6	5.97%	Sez6l2
IPI00336807.4	7	11	9	5	8	40	8	8.0	2.0	22.22%	2.1	28.39%	Srgap2
IPI00761259.1	12	7	6	6	8	39	7	7.8	3.2	38.57%	1.2	17.32%	2310014G06Rik
IPI00128760.1	10	7	6	9	7	39	7	7.8	2.1	27.15%	1.5	20.83%	Coro2b
IPI00108150.1	9	9	6	9	6	39	9	7.8	1.7	21.65%	1.7	24.74%	Dclk1
IPI00121105.2	6	7	13	13	0	39	7	7.8	3.8	43.68%	7.5	86.60%	EG331392
IPI00111271.1	11	8	11	6	3	39	8	7.8	1.7	17.32%	4.0	60.62%	Gsn
IPI00331092.7	9	6	12	7	5	39	7	7.8	3.0	33.33%	3.6	45.07%	Madd
IPI00135186.1	11	8	7	8	5	39	8	7.8	2.1	24.02%	1.5	22.91%	Me1
IPI00624843.3	9	9	6	7	8	39	8	7.8	1.7	21.65%	1.0	14.29%	Mrps36
IPI00828221.2	5	9	10	11	4	39	9	7.8	2.6	33.07%	3.8	45.43%	Nup160
IPI00652694.1	10	11	11	5	2	39	10	7.8	0.6	5.41%	4.6	76.38%	Pigs
IPI00132080.1	8	12	11	4	4	39	8	7.8	2.1	20.15%	4.0	63.81%	Ppif
IPI00270877.5	7	10	10	7	5	39	7	7.8	1.7	19.25%	2.5	34.32%	Psmb1
IPI00875943.1	9	10	10	7	3	39	9	7.8	0.6	5.97%	3.5	52.68%	Psmd7
IPI00126548.2	12	9	6	9	3	39	9	7.8	3.0	33.33%	3.0	50.00%	Sec22b
IPI00785449.1	12	8	7	9	3	39	8	7.8	2.6	29.40%	3.1	48.24%	Tspan2
IPI00849793.1	9	5	10	7	7	38	7	7.6	2.6	33.07%	1.7	21.65%	Acadm
IPI00343557.1	9	6	10	2	11	38	9	7.6	2.1	24.98%	4.9	64.34%	Adam10
IPI00420734.1	6	8	8	10	6	38	8	7.6	1.2	15.75%	2.0	25.00%	Cct6a

IPI00830314.1	8	9	6	8	7	38	8	7.6	1.5	19.92%	1.0	14.29%	Cpne5
IPI00128341.1	9	10	4	9	6	38	9	7.6	3.2	41.93%	2.5	39.74%	Cyb5r1
IPI00315280.5	6	11	10	6	5	38	6	7.6	2.6	29.40%	2.6	37.80%	Faah
IPI00113539.2	9	6	9	9	5	38	9	7.6	1.7	21.65%	2.3	30.12%	Fgg
IPI00881401.1	8	10	7	6	7	38	7	7.6	1.5	18.33%	0.6	8.66%	Folh1
IPI00322145.10	7	8	6	12	5	38	7	7.6	1.0	14.29%	3.8	49.38%	Hkdc1
IPI00356904.7	7	4	10	7	10	38	7	7.6	3.0	42.86%	1.7	19.25%	Lin7c
IPI00469918.4	11	10	6	6	5	38	6	7.6	2.6	29.40%	0.6	10.19%	Ociad1
IPI00880948.1	7	7	7	8	9	38	7	7.6	0.0	0.00%	1.0	12.50%	Peci
IPI00415914.3	5	6	10	10	7	38	7	7.6	2.6	37.80%	1.7	19.25%	Prkar1a
IPI00331463.1	9	9	11	7	2	38	9	7.6	1.2	11.95%	4.5	67.64%	Slc25a46
IPI00323571.1	11	9	6	7	5	38	7	7.6	2.5	29.04%	1.0	16.67%	Sorl1
IPI00228253.2	8	9	9	7	5	38	8	7.6	0.6	6.66%	2.0	28.57%	Sparcl1
IPI00114162.3	8	6	9	10	5	38	8	7.6	1.5	19.92%	2.6	33.07%	Tpm1
IPI00123557.3	8	9	4	11	6	38	8	7.6	2.6	37.80%	3.6	51.51%	Ube2l3
IPI00114368.3	9	3	4	8	14	38	8	7.6	3.2	60.27%	5.0	58.08%	Ube2n
IPI00116281.3	10	4	9	8	6	37	8	7.4	3.2	41.93%	1.5	19.92%	Arhgef12
IPI00120199.1	10	6	12	5	4	37	6	7.4	3.1	32.73%	4.4	62.27%	Capn2
IPI00469338.4	4	12	7	9	5	37	7	7.4	4.0	52.71%	2.0	28.57%	Efr3b
IPI00128945.1	13	5	4	10	5	37	5	7.4	4.9	67.27%	3.2	50.76%	Fkbp2
IPI00869381.1	7	12	5	6	7	37	7	7.4	3.6	45.07%	1.0	16.67%	Grhpr
IPI00331146.5	6	8	13	8	2	37	8	7.4	3.6	40.06%	5.5	71.84%	LOC100048622
IPI00225575.5	10	7	4	9	7	37	7	7.4	3.0	42.86%	2.5	37.75%	Mccc1
IPI00466185.4	9	11	5	6	6	37	6	7.4	3.1	36.66%	0.6	10.19%	Mccc2
IPI00109033.3	8	10	7	6	6	37	7	7.4	1.5	18.33%	0.6	9.12%	Necap1
IPI00276222.1	5	10	3	11	8	37	8	7.4	3.6	60.09%	4.0	55.11%	Nlgn3
IPI00117986.2	9	11	5	5	7	37	7	7.4	3.1	36.66%	1.2	20.38%	Nucb1
IPI00648709.2	14	3	3	6	11	37	6	7.4	6.4	95.26%	4.0	60.62%	Pak1
IPI00318841.4	7	5	7	9	9	37	7	7.4	1.2	18.23%	1.2	13.86%	Pin1
IPI00128436.1	7	7	6	9	8	37	7	7.4	0.6	8.66%	1.5	19.92%	Ppp2r5e
IPI00114377.1	9	5	8	9	6	37	8	7.4	2.1	28.39%	1.5	19.92%	Ptprn2
IPI00754572.2	4	13	8	5	7	37	7	7.4	4.5	54.11%	1.5	22.91%	Rab5b
IPI00271166.4	0	16	8	13	0	37	8	7.4	8.0	100.00%	6.6	93.68%	Rac2
IPI00380814.1	9	8	6	7	7	37	7	7.4	1.5	19.92%	0.6	8.66%	Slc25a1

IPI00420394.4	8	7	7	7	8	37	7	7.4	0.6	7.87%	0.6	7.87%	Synpo
IPI00109588.4	8	9	9	7	4	37	8	7.4	0.6	6.66%	2.5	37.75%	Thnsl1
IPI00125521.3	10	3	3	7	14	37	7	7.4	4.0	75.78%	5.6	69.60%	Tpp1
IPI00126796.3	9	3	10	8	7	37	8	7.4	3.8	51.63%	1.5	18.33%	Vps13a
IPI00673886.4	7	13	5	8	4	37	7	7.4	4.2	49.96%	2.1	36.74%	Wdr37
IPI00408646.5	8	8	9	7	4	36	8	7.2	0.6	6.93%	2.5	37.75%	1500005I02Rik
IPI00762919.2	6	9	10	3	8	36	8	7.2	2.1	24.98%	3.6	51.51%	Adcy9
IPI00653300.1	9	7	5	9	6	36	7	7.2	2.0	28.57%	2.1	31.22%	Asrgl1
IPI00153903.6	10	9	8	6	3	36	8	7.2	1.0	11.11%	2.5	44.41%	Cox7a2
IPI00225533.1	6	14	9	7	0	36	7	7.2	4.0	41.81%	4.7	88.61%	Ddx5
IPI00466128.3	12	3	6	7	8	36	7	7.2	4.6	65.47%	1.0	14.29%	Epha4
IPI00762185.2	9	8	9	10	0	36	9	7.2	0.6	6.66%	5.5	86.96%	Fn1
IPI00420931.1	8	6	8	5	9	36	8	7.2	1.2	15.75%	2.1	28.39%	Grid2
IPI00330363.8	8	4	11	6	7	36	7	7.2	3.5	45.81%	2.6	33.07%	Krt1
IPI00420363.2	10	6	8	5	7	36	7	7.2	2.0	25.00%	1.5	22.91%	Ktn1
IPI00420467.1	12	6	4	9	5	36	6	7.2	4.2	56.77%	2.6	44.10%	Odz4
IPI00625729.2	8	10	8	7	3	36	8	7.2	1.2	13.32%	2.6	44.10%	Pitpna
IPI00857742.1	6	4	11	9	6	36	6	7.2	3.6	51.51%	2.5	29.04%	Ptrh2
IPI00308187.1	13	3	6	9	5	36	6	7.2	5.1	69.98%	2.1	31.22%	Scrn1
IPI00411157.4	7	11	7	8	3	36	7	7.2	2.3	27.71%	2.6	44.10%	Tmem33
IPI00118022.1	7	8	8	6	7	36	7	7.2	0.6	7.53%	1.0	14.29%	Ubr4
IPI00648288.1	6	6	10	8	6	36	6	7.2	2.3	31.49%	2.0	25.00%	Vgf
IPI00750536.1	8	11	9	6	2	36	8	7.2	1.5	16.37%	3.5	61.97%	Xpo1
IPI00221725.2	7	8	7	8	5	35	7	7.0	0.6	7.87%	1.5	22.91%	Ap1g1
IPI00515370.1	8	9	6	5	7	35	7	7.0	1.5	19.92%	1.0	16.67%	Apoa1bp
IPI00330193.3	13	6	5	8	3	35	6	7.0	4.4	54.49%	2.5	47.19%	Cacna2d3
IPI00115626.1	9	5	5	11	5	35	5	7.0	2.3	36.46%	3.5	49.49%	Cap2
IPI00318496.1	8	4	9	9	5	35	8	7.0	2.6	37.80%	2.3	30.12%	Cfl2
IPI00466610.5	11	6	2	8	8	35	8	7.0	4.5	71.20%	3.5	57.74%	Chl1
IPI00466919.7	9	6	12	4	4	35	6	7.0	3.0	33.33%	4.6	69.28%	Clcn6
IPI00828479.1	6	5	6	10	8	35	6	7.0	0.6	10.19%	2.0	25.00%	Clic4
IPI00318522.3	6	6	9	5	9	35	6	7.0	1.7	24.74%	2.3	30.12%	Eif4a1
IPI00653643.3	13	6	6	3	7	35	6	7.0	4.0	48.50%	2.1	39.03%	Enpp1
IPI00153702.2	6	11	11	5	2	35	6	7.0	2.9	30.93%	4.6	76.38%	Ermp1

IPI00230084.5	11	3	9	5	7	35	7	7.0	4.2	54.30%	2.0	28.57%	Gnb2l1
IPI00122559.3	12	5	7	7	4	35	7	7.0	3.6	45.07%	1.7	28.87%	Grn
IPI00133249.1	4	8	10	7	6	35	7	7.0	3.1	41.66%	2.1	27.15%	Gstk1
IPI00118447.1	6	4	14	4	7	35	6	7.0	5.3	66.14%	5.1	61.58%	Hint2
IPI00128632.6	7	13	10	5	0	35	7	7.0	3.0	30.00%	5.0	100.00%	Krt14
IPI00133234.1	8	7	6	9	5	35	7	7.0	1.0	14.29%	2.1	31.22%	Lxn
IPI00131143.1	10	8	7	5	5	35	7	7.0	1.5	18.33%	1.2	20.38%	Mcart1
IPI00221739.1	7	5	7	11	5	35	7	7.0	1.2	18.23%	3.1	39.85%	Mecp2
IPI00122396.1	6	4	8	11	6	35	6	7.0	2.0	33.33%	2.5	30.20%	Ndufb11
IPI00131204.1	3	10	6	7	9	35	7	7.0	3.5	55.45%	1.5	20.83%	Ndufb6
IPI00317740.5	7	9	7	8	4	35	7	7.0	1.2	15.06%	2.1	32.87%	Padi2
IPI00420806.3	8	7	7	6	7	35	7	7.0	0.6	7.87%	0.6	8.66%	Pck2
IPI00223274.2	11	8	4	6	6	35	6	7.0	3.5	45.81%	1.2	21.65%	Pcmt1
IPI00321308.4	7	9	8	6	5	35	7	7.0	1.0	12.50%	1.5	24.12%	Prom1
IPI00407222.4	5	13	8	6	3	35	6	7.0	4.0	46.63%	2.5	44.41%	Rps15
IPI00881758.1	4	13	9	4	5	35	5	7.0	4.5	52.03%	2.6	44.10%	Tjp2
IPI00153950.1	6	10	9	5	5	35	6	7.0	2.1	24.98%	2.3	36.46%	Tst
IPI00122312.2	8	3	5	10	9	35	8	7.0	2.5	47.19%	2.6	33.07%	Zadh2
IPI00115977.1	7	4	10	3	10	34	7	6.8	3.0	42.86%	4.0	52.71%	2210010N04Rik
IPI00652758.1	4	10	10	6	4	34	6	6.8	3.5	43.30%	3.1	45.83%	Akr7a5
IPI00775806.2	9	8	7	3	7	34	7	6.8	1.0	12.50%	2.3	40.75%	Aldh7a1
IPI00116563.2	7	5	6	11	5	34	6	6.8	1.0	16.67%	3.2	43.83%	Ap3b2
IPI00608114.2	7	15	7	3	2	34	7	6.8	4.6	47.78%	2.6	66.14%	Calu
IPI00338785.3	9	6	8	8	3	34	8	6.8	1.5	19.92%	2.9	45.58%	Cmpk
IPI00420426.1	9	7	9	6	3	34	7	6.8	1.2	13.86%	3.0	50.00%	Cpt1a
IPI00124286.2	7	9	6	5	7	34	7	6.8	1.5	20.83%	1.0	16.67%	EG545878
IPI00330599.1	9	9	7	9	0	34	9	6.8	1.2	13.86%	4.7	88.61%	Ehd4
IPI00222759.3	6	7	9	5	7	34	7	6.8	1.5	20.83%	2.0	28.57%	Eif4a2
IPI00118880.5	7	11	8	6	2	34	7	6.8	2.1	24.02%	3.1	57.28%	Ggt1
IPI00128859.2	13	4	4	6	7	34	6	6.8	5.2	74.23%	1.5	26.96%	Lmf2
IPI00270326.1	10	5	5	9	5	34	5	6.8	2.9	43.30%	2.3	36.46%	Pls3
IPI00123762.2	10	6	5	4	9	34	6	6.8	2.6	37.80%	2.6	44.10%	Ppap2b
IPI00130530.1	11	4	7	5	7	34	7	6.8	3.5	47.89%	1.2	18.23%	Psmd1
IPI00226872.1	7	7	4	9	7	34	7	6.8	1.7	28.87%	2.5	37.75%	Ptpn5

IPI00136207.6	10	8	9	4	3	34	8	6.8	1.0	11.11%	3.2	60.27%	Pura
IPI00403682.2	6	10	8	10	0	34	8	6.8	2.0	25.00%	5.3	88.19%	Rpl7a
IPI00881197.1	5	11	8	8	2	34	8	6.8	3.0	37.50%	3.5	57.74%	Rps17
IPI00131895.4	13	6	6	6	3	34	6	6.8	4.0	48.50%	1.7	34.64%	Sel1l
IPI00223527.1	10	4	7	6	7	34	7	6.8	3.0	42.86%	0.6	8.66%	Sema7a
IPI00318671.2	2	7	9	7	9	34	7	6.8	3.6	60.09%	1.2	13.86%	Skp1a
IPI00457659.2	5	8	6	4	11	34	6	6.8	1.5	24.12%	3.6	51.51%	Slc1a1
IPI00874376.1	7	9	6	5	7	34	7	6.8	1.5	20.83%	1.0	16.67%	Tom1
IPI00132734.1	0	6	12	12	4	34	6	6.8	6.0	100.00%	4.6	49.49%	Tpm3
IPI00399905.5	8	10	4	8	4	34	8	6.8	3.1	41.66%	2.3	43.30%	Usp14
IPI00169622.3	9	6	11	3	4	33	6	6.6	2.5	29.04%	4.4	72.65%	Abi1
IPI00330464.5	6	10	5	5	7	33	6	6.6	2.6	37.80%	1.2	20.38%	Agpat1
IPI00125180.9	7	7	3	10	6	33	7	6.6	2.3	40.75%	3.5	55.45%	AI427515
IPI00221828.1	5	11	6	8	3	33	6	6.6	3.2	43.83%	2.5	44.41%	Aldh18a1
IPI00118795.1	9	7	8	3	6	33	7	6.6	1.0	12.50%	2.5	44.41%	Arhgef2
IPI00752390.3	6	3	2	15	7	33	6	6.6	2.1	56.77%	6.6	81.97%	Cd9
IPI00124051.1	6	13	8	6	0	33	6	6.6	3.6	40.06%	4.2	89.21%	Dcakd
IPI00138217.2	12	8	7	2	4	33	7	6.6	2.6	29.40%	2.5	58.08%	Drp2
IPI00113521.5	7	7	7	5	7	33	7	6.6	0.0	0.00%	1.2	18.23%	Dync1li2
IPI00165854.3	8	3	6	7	9	33	7	6.6	2.5	44.41%	1.5	20.83%	Efhd2
IPI00653706.1	8	5	4	7	9	33	7	6.6	2.1	36.74%	2.5	37.75%	Freq
IPI00776324.1	7	6	6	9	5	33	6	6.6	0.6	9.12%	2.1	31.22%	Git1
IPI00130546.1	8	6	7	12	0	33	7	6.6	1.0	14.29%	6.0	95.17%	Gnb5
IPI00134058.3	7	6	6	9	5	33	6	6.6	0.6	9.12%	2.1	31.22%	Hist1h1b
IPI00336313.2	7	10	12	4	0	33	7	6.6	2.5	26.03%	6.1	114.56%	Inf2
IPI00380354.1	7	7	9	2	8	33	7	6.6	1.2	15.06%	3.8	59.78%	Lphn3
IPI00132696.2	14	7	6	4	2	33	6	6.6	4.4	48.43%	2.0	50.00%	Lrrc8a
IPI00221857.1	7	8	12	4	2	33	7	6.6	2.6	29.40%	5.3	88.19%	Mtdh
IPI00378764.6	9	8	7	4	5	33	7	6.6	1.0	12.50%	1.5	28.64%	Pgrmc2
IPI00127930.1	12	2	7	5	7	33	7	6.6	5.0	71.43%	1.2	18.23%	Pitrm1
IPI00330857.5	8	8	8	5	4	33	8	6.6	0.0	0.00%	2.1	36.74%	Rgs6
IPI00625848.2	8	3	14	3	5	33	5	6.6	5.5	66.09%	5.9	79.90%	Slc30a1
IPI00269408.1	5	6	10	7	5	33	6	6.6	2.6	37.80%	2.5	34.32%	Sorbs2
IPI00121051.3	7	7	4	8	7	33	7	6.6	1.7	28.87%	2.1	32.87%	Wasf1

IPI00341322.3	7	9	7	7	2	32	7	6.4	1.2	15.06%	2.9	54.13%	A330104H05Rik
IPI00319652.1	6	4	8	5	9	32	6	6.4	2.0	33.33%	2.1	28.39%	Abr
IPI00129350.1	7	7	5	7	6	32	7	6.4	1.2	18.23%	1.0	16.67%	Acat2
IPI00380338.1	6	5	8	5	8	32	6	6.4	1.5	24.12%	1.7	24.74%	Aldh3a2
IPI00408059.4	6	7	4	5	10	32	6	6.4	1.5	26.96%	3.2	50.76%	Ap3m2
IPI00223070.3	6	9	8	6	3	32	6	6.4	1.5	19.92%	2.5	44.41%	Apool
IPI00468685.2	9	7	6	7	3	32	7	6.4	1.5	20.83%	2.1	39.03%	Cacna1a
IPI00330941.3	4	3	5	12	8	32	5	6.4	1.0	25.00%	3.5	42.14%	Csrp1
IPI00466570.4	4	3	5	12	8	32	5	6.4	1.0	25.00%	3.5	42.14%	Ctnna3
IPI00330094.4	5	7	8	7	5	32	7	6.4	1.5	22.91%	1.5	22.91%	D1Ertd53e
IPI00319231.4	10	4	5	8	5	32	5	6.4	3.2	50.76%	1.7	28.87%	Dlgap3
IPI00109482.3	7	2	10	8	5	32	7	6.4	4.0	63.81%	2.5	32.83%	Fads2
IPI00798483.1	8	5	8	5	6	32	6	6.4	1.7	24.74%	1.5	24.12%	Fcgrt
IPI00130102.4	5	4	8	8	7	32	7	6.4	2.1	36.74%	0.6	7.53%	Gabrb3
IPI00403618.4	5	11	6	5	5	32	5	6.4	3.2	43.83%	0.6	10.83%	Gng12
IPI00279010.6	10	7	5	6	4	32	6	6.4	2.5	34.32%	1.0	20.00%	Gucy1b3
IPI00122522.1	3	10	5	7	7	32	7	6.4	3.6	60.09%	1.2	18.23%	Hebp1
IPI00132314.1	0	16	9	0	7	32	7	6.4	8.0	96.25%	4.7	88.61%	Hk2
IPI00225534.3	8	9	8	5	2	32	8	6.4	0.6	6.93%	3.0	60.00%	Hnrpk
IPI00124829.5	6	5	9	7	5	32	6	6.4	2.1	31.22%	2.0	28.57%	Kcnc1
IPI00135068.1	6	9	5	9	3	32	6	6.4	2.1	31.22%	3.1	53.91%	Kcnd2
IPI00118676.3	10	5	6	6	5	32	6	6.4	2.6	37.80%	0.6	10.19%	Lman2
IPI00624175.1	9	11	8	4	0	32	8	6.4	1.5	16.37%	4.0	100.00%	LOC672959
IPI00408796.3	8	7	5	4	8	32	7	6.4	1.5	22.91%	2.1	36.74%	Mink1
IPI00153381.1	8	8	6	5	5	32	6	6.4	1.2	15.75%	0.6	10.83%	Plcb4
IPI00170126.4	11	7	7	0	7	32	7	6.4	2.3	27.71%	4.0	86.60%	Ppp2r2d
IPI00124640.4	8	5	4	7	8	32	7	6.4	2.1	36.74%	2.1	32.87%	Ran
IPI00310247.7	5	11	5	8	3	32	5	6.4	3.5	49.49%	2.5	47.19%	Reep5
IPI00854952.1	8	7	5	9	3	32	7	6.4	1.5	22.91%	3.1	53.91%	Rock2
IPI00469942.2	11	9	8	4	0	32	8	6.4	1.5	16.37%	4.0	100.00%	Rps5
IPI00461626.1	6	10	9	4	3	32	6	6.4	2.1	24.98%	3.2	60.27%	Sec63
IPI00351206.5	10	7	7	8	0	32	7	6.4	1.7	21.65%	4.4	87.18%	Tm9sf2
IPI00114945.1	6	2	7	15	2	32	6	6.4	2.6	52.92%	6.6	81.97%	Tmpo
IPI00622240.4	7	9	6	6	4	32	6	6.4	1.5	20.83%	1.2	21.65%	Ubqln1

IPI00133403.1	10	8	11	3	0	32	8	6.4	1.5	15.80%	5.7	121.85%	Ugp2
IPI00308149.1	11	5	7	6	2	31	6	6.2	3.1	39.85%	2.6	52.92%	Adcy6
IPI00347634.2	4	10	7	4	6	31	6	6.2	3.0	42.86%	1.5	26.96%	Apoa2
IPI00227140.1	8	5	7	4	7	31	7	6.2	1.5	22.91%	1.7	28.87%	Arpc4
IPI00409336.4	9	9	5	6	2	31	6	6.2	2.3	30.12%	2.1	48.04%	Cbara1
IPI00114962.1	13	3	4	5	6	31	5	6.2	5.5	82.61%	1.0	20.00%	Cdc42bpb
IPI00395038.3	5	4	9	6	7	31	6	6.2	2.6	44.10%	1.5	20.83%	Clybl
IPI00120083.1	9	5	4	5	8	31	5	6.2	2.6	44.10%	2.1	36.74%	Cnksr2
IPI00473728.1	2	11	10	3	5	31	5	6.2	4.9	64.34%	3.6	60.09%	Comtd1
IPI00153227.5	9	7	6	5	4	31	6	6.2	1.5	20.83%	1.0	20.00%	Cpm
IPI00115231.2	13	4	4	4	6	31	4	6.2	5.2	74.23%	1.2	24.74%	ENSMUSG00000073431
IPI00114389.4	5	8	9	3	6	31	6	6.2	2.1	28.39%	3.0	50.00%	Hexb
IPI00649763.1	5	11	7	6	2	31	6	6.2	3.1	39.85%	2.6	52.92%	Hnrnpl
IPI00830701.1	3	5	10	6	7	31	6	6.2	3.6	60.09%	2.1	27.15%	Hprt1
IPI00409918.1	6	5	4	9	7	31	6	6.2	1.0	20.00%	2.5	37.75%	Itsn1
IPI00380331.1	6	6	11	5	3	31	6	6.2	2.9	37.65%	4.2	65.74%	LOC100044842
IPI00322312.3	6	7	5	7	6	31	6	6.2	1.0	16.67%	1.0	16.67%	M6pr
IPI00123014.1	8	8	8	7	0	31	8	6.2	0.0	0.00%	4.4	87.18%	Mipol1
IPI00420244.3	7	7	7	5	5	31	7	6.2	0.0	0.00%	1.2	20.38%	Ociad2
IPI00223060.1	8	8	8	7	0	31	8	6.2	0.0	0.00%	4.4	87.18%	Prps1
IPI00122015.1	6	3	11	7	4	31	6	6.2	4.0	60.62%	3.5	47.89%	Psmc2
IPI00315593.4	10	7	2	6	6	31	6	6.2	4.0	63.81%	2.3	49.49%	Psmd3
IPI00420651.3	7	8	12	4	0	31	7	6.2	2.6	29.40%	6.1	114.56%	Rasip1
IPI00120715.1	6	7	8	7	3	31	7	6.2	1.0	14.29%	2.6	44.10%	Serpinb1a
IPI00272690.2	7	0	7	9	8	31	7	6.2	4.0	86.60%	1.0	12.50%	Trim2
IPI00137173.1	8	7	10	3	3	31	7	6.2	1.5	18.33%	4.0	75.78%	Txndc4
IPI00222515.5	8	4	9	5	5	31	5	6.2	2.6	37.80%	2.3	36.46%	Ube2o
IPI00751337.3	9	4	7	4	6	30	6	6.0	2.5	37.75%	1.5	26.96%	Abi2
IPI00170307.1	6	3	8	6	7	30	6	6.0	2.5	44.41%	1.0	14.29%	Apoe
IPI00135085.4	5	6	4	8	7	30	6	6.0	1.0	20.00%	2.1	32.87%	Bcan
IPI00110049.5	6	8	5	6	5	30	6	6.0	1.5	24.12%	0.6	10.83%	Calb2
IPI00135640.1	9	6	8	3	4	30	6	6.0	1.5	19.92%	2.6	52.92%	Ckap5
IPI00266836.1	4	10	5	6	5	30	5	6.0	3.2	50.76%	0.6	10.83%	Cpne4
IPI00108980.2	9	7	3	6	5	30	6	6.0	3.1	48.24%	1.5	32.73%	D430041D05Rik

IPI00122862.4	10	4	10	3	3	30	4	6.0	3.5	43.30%	4.0	75.78%	Efr3a
IPI00130804.1	9	4	6	6	5	30	6	6.0	2.5	39.74%	0.6	10.19%	Entpd2
IPI00851092.1	6	4	9	8	3	30	6	6.0	2.5	39.74%	3.2	48.22%	Ephb2
IPI00114342.1	5	6	5	7	7	30	6	6.0	0.6	10.83%	1.2	18.23%	Gpr37l1
IPI00224151.5	9	0	9	7	5	30	7	6.0	5.2	86.60%	2.0	28.57%	H2-Q1
IPI00128201.1	17	0	13	0	0	30	0	6.0	8.9	88.88%	7.5	173.21%	Hist1h1c
IPI00136498.1	5	7	11	7	0	30	7	6.0	3.1	39.85%	5.6	92.80%	Irgm
IPI00381365.1	4	7	6	8	5	30	6	6.0	1.5	26.96%	1.5	24.12%	Pdk1
IPI00221569.1	6	2	7	6	9	30	6	6.0	2.6	52.92%	1.5	20.83%	Pdxp
IPI00377680.4	9	5	5	5	6	30	5	6.0	2.3	36.46%	0.6	10.83%	Plxnd1
IPI00117454.1	7	6	7	6	4	30	6	6.0	0.6	8.66%	1.5	26.96%	Psmd11
IPI00131870.3	10	5	5	10	0	30	5	6.0	2.9	43.30%	5.0	100.00%	Rasa3
IPI00776023.1	8	4	4	10	4	30	4	6.0	2.3	43.30%	3.5	57.74%	Sdhc
IPI00876558.1	12	10	4	4	0	30	4	6.0	4.2	48.04%	2.3	86.60%	Slc44a2
IPI00653535.2	9	5	6	4	6	30	6	6.0	2.1	31.22%	1.2	21.65%	Timm44
IPI00153421.1	3	0	11	14	2	30	3	6.0	5.7	121.85%	6.2	69.39%	Tpr
IPI00828513.1	7	7	9	2	4	29	7	5.8	1.2	15.06%	3.6	72.11%	Akr1a4
IPI00816935.3	6	9	8	4	2	29	6	5.8	1.5	19.92%	3.1	65.47%	App
IPI00312507.2	11	3	2	0	13	29	3	5.8	4.9	92.49%	7.0	140.00%	Arl8a
IPI00121319.1	6	12	4	3	4	29	4	5.8	4.2	56.77%	0.6	15.75%	Armc10
IPI00230133.5	5	8	6	3	7	29	6	5.8	1.5	24.12%	2.1	39.03%	Ech1
IPI00138691.6	5	3	7	4	10	29	5	5.8	2.0	40.00%	3.0	42.86%	ENSMUSG00000071280
IPI00471022.3	9	3	4	11	2	29	4	5.8	3.2	60.27%	4.7	83.40%	Gak
IPI00126338.5	7	5	9	3	5	29	5	5.8	2.0	28.57%	3.1	53.91%	Hax1
IPI00229834.2	8	10	7	4	0	29	7	5.8	1.5	18.33%	3.5	95.78%	Krt77
IPI00111117.5	8	3	4	6	8	29	6	5.8	2.6	52.92%	2.0	33.33%	Mpp5
IPI00137792.1	0	0	0	29	0	29	0	5.8	0.0	#DIV/0!	16.7	173.21%	Myh4
IPI00655156.3	10	5	6	5	3	29	5	5.8	2.6	37.80%	1.5	32.73%	Nap1l4
IPI00284806.8	6	7	6	8	2	29	6	5.8	0.6	9.12%	3.1	57.28%	Nars
IPI00128567.2	10	3	7	4	5	29	5	5.8	3.5	52.68%	1.5	28.64%	Ncln
IPI00131406.1	5	8	9	3	4	29	5	5.8	2.1	28.39%	3.2	60.27%	Osbpl8
IPI00654967.3	2	9	8	6	4	29	6	5.8	3.8	59.78%	2.0	33.33%	Paics
IPI00133428.3	8	5	4	8	4	29	5	5.8	2.1	36.74%	2.3	43.30%	Ppfia3
IPI00130253.4	6	5	6	7	5	29	6	5.8	0.6	10.19%	1.0	16.67%	Ppp2r4

IPI00131871.1	7	8	5	9	0	29	7	5.8	1.5	22.91%	4.5	96.63%	Psmb4
IPI00312374.6	8	5	8	5	3	29	5	5.8	1.7	24.74%	2.5	47.19%	Psmc4
IPI00756908.2	0	0	15	14	0	29	0	5.8	8.7	173.21%	8.4	86.76%	Rhoc
IPI00125652.1	7	5	10	5	2	29	5	5.8	2.5	34.32%	4.0	71.32%	Rpl10a
IPI00224093.2	8	10	9	2	0	29	8	5.8	1.0	11.11%	4.7	128.89%	Rps4x
IPI00453829.3	8	4	8	4	5	29	5	5.8	2.3	34.64%	2.1	36.74%	Slc12a4
IPI00853981.1	11	7	4	5	2	29	5	5.8	3.5	47.89%	1.5	41.66%	Slc44a1
IPI00112139.1	6	7	7	7	2	29	7	5.8	0.6	8.66%	2.9	54.13%	Tbc1d24
IPI00230766.4	9	5	7	4	4	29	5	5.8	2.0	28.57%	1.7	34.64%	Tenc1
IPI00222852.3	5	10	8	2	4	29	5	5.8	2.5	32.83%	3.1	65.47%	Timm50
IPI00330634.1	11	6	5	4	3	29	5	5.8	3.2	43.83%	1.0	25.00%	Tmem30a
IPI00224070.2	8	5	5	9	2	29	5	5.8	1.7	28.87%	3.5	65.85%	Wars
IPI00128285.1	4	8	4	7	5	28	5	5.6	2.3	43.30%	1.5	28.64%	1110020P15Rik
IPI00331745.2	4	6	9	2	7	28	6	5.6	2.5	39.74%	3.6	60.09%	1300010F03Rik
IPI00551236.3	6	9	4	4	5	28	5	5.6	2.5	39.74%	0.6	13.32%	Adcy2
IPI00338327.1	7	6	10	2	3	28	6	5.6	2.1	27.15%	4.4	87.18%	Arpc5l
IPI00230171.1	6	5	7	7	3	28	6	5.6	1.0	16.67%	2.3	40.75%	Atp11c
IPI00857720.1	8	3	6	6	5	28	6	5.6	2.5	44.41%	0.6	10.19%	Csnk2a2
IPI00112377.1	5	9	10	4	0	28	5	5.6	2.6	33.07%	5.0	107.85%	Eif3a
IPI00387377.1	5	13	10	0	0	28	5	5.6	4.0	43.30%	5.8	173.21%	Eif3f
IPI00337992.1	4	4	4	7	9	28	4	5.6	0.0	0.00%	2.5	37.75%	Etl4
IPI00120113.5	15	3	3	7	0	28	3	5.6	6.9	98.97%	3.5	105.36%	Hsd17b11
IPI00310764.7	5	2	7	8	6	28	6	5.6	2.5	53.93%	1.0	14.29%	Inpp5a
IPI00460653.2	6	3	6	6	7	28	6	5.6	1.7	34.64%	0.6	9.12%	Kcnma1
IPI00132993.1	11	5	6	6	0	28	6	5.6	3.2	43.83%	3.5	86.60%	Krt2
IPI00269661.1	6	6	10	6	0	28	6	5.6	2.3	31.49%	5.0	94.37%	Lin7a
IPI00831445.1	8	2	4	4	10	28	4	5.6	3.1	65.47%	3.5	57.74%	Ndrg3
IPI00225634.6	3	6	9	2	8	28	6	5.6	3.0	50.00%	3.8	59.78%	Nt5c
IPI00127495.3	6	3	5	7	7	28	6	5.6	1.5	32.73%	1.2	18.23%	Nup210
IPI00869394.1	7	3	6	9	3	28	6	5.6	2.1	39.03%	3.0	50.00%	Pcbp1
IPI00649005.1	4	4	5	8	7	28	5	5.6	0.6	13.32%	1.5	22.91%	Pcdh1
IPI00108844.1	7	6	6	7	2	28	6	5.6	0.6	9.12%	2.6	52.92%	Pip4k2a
IPI00653079.2	9	2	4	6	7	28	6	5.6	3.6	72.11%	1.5	26.96%	Pmpca
IPI00119346.1	8	2	4	6	8	28	6	5.6	3.1	65.47%	2.0	33.33%	Prpsap2

IPI00316650.1	8	6	5	4	5	28	5	5.6	1.5	24.12%	0.6	12.37%	Psmc5
IPI00877214.1	6	7	8	7	0	28	7	5.6	1.0	14.29%	4.4	87.18%	Rplp1
IPI00133608.3	7	8	6	7	0	28	7	5.6	1.0	14.29%	3.8	87.37%	Ruvbl2
IPI00402913.1	6	5	7	5	5	28	5	5.6	1.0	16.67%	1.2	20.38%	Slc25a27
IPI00118723.3	4	4	5	4	11	28	4	5.6	0.6	13.32%	3.8	56.79%	Syngr1
IPI00108431.8	6	6	5	7	4	28	6	5.6	0.6	10.19%	1.5	28.64%	Ttyh3
IPI00115530.1	6	5	8	6	2	27	6	5.4	1.5	24.12%	3.1	57.28%	1110020G09Rik
IPI00308938.6	5	4	7	6	5	27	5	5.4	1.5	28.64%	1.0	16.67%	1500032D16Rik
IPI00278230.5	6	7	9	2	3	27	6	5.4	1.5	20.83%	3.8	81.13%	2410166I05Rik
IPI00229680.5	6	2	8	9	2	27	6	5.4	3.1	57.28%	3.8	59.78%	Aars
IPI00229030.1	8	8	6	5	0	27	6	5.4	1.2	15.75%	3.2	87.67%	Abcc9
IPI00848443.1	5	3	6	8	5	27	5	5.4	1.5	32.73%	1.5	24.12%	Ache
IPI00136334.1	5	3	6	6	7	27	6	5.4	1.5	32.73%	0.6	9.12%	Acot2
IPI00462140.1	7	2	8	7	3	27	7	5.4	3.2	56.73%	2.6	44.10%	Atpif1
IPI00318428.4	3	12	6	3	3	27	3	5.4	4.6	65.47%	1.7	43.30%	Bcap31
IPI00845689.1	6	4	5	7	5	27	5	5.4	1.0	20.00%	1.2	20.38%	Cd200
IPI00308813.1	5	4	5	7	6	27	5	5.4	0.6	12.37%	1.0	16.67%	D2hgdh
IPI00405756.8	7	6	4	3	7	27	6	5.4	1.5	26.96%	2.1	44.61%	Dnaja3
IPI00133034.3	5	6	7	3	6	27	6	5.4	1.0	16.67%	2.1	39.03%	Dock4
IPI00676841.1	10	0	8	9	0	27	8	5.4	5.3	88.19%	4.9	87.05%	Ephb3
IPI00874555.1	4	9	6	5	3	27	5	5.4	2.5	39.74%	1.5	32.73%	Epn1
IPI00120264.1	4	4	7	7	5	27	5	5.4	1.7	34.64%	1.2	18.23%	Fga
IPI00620097.2	4	5	4	7	7	27	5	5.4	0.6	13.32%	1.7	28.87%	Gabrb2
IPI00114613.3	7	5	5	7	3	27	5	5.4	1.2	20.38%	2.0	40.00%	Gdap1
IPI00127204.1	5	11	5	4	2	27	5	5.4	3.5	49.49%	1.5	41.66%	Gng4
IPI00406030.2	5	6	5	5	6	27	5	5.4	0.6	10.83%	0.6	10.83%	Ipo7
IPI00785231.1	7	3	4	10	3	27	4	5.4	2.1	44.61%	3.8	66.81%	Kif2a
IPI00120914.1	9	4	3	6	5	27	5	5.4	3.2	60.27%	1.5	32.73%	Mtx1
IPI00227838.4	4	10	5	6	2	27	5	5.4	3.2	50.76%	2.1	48.04%	Nup133
IPI00115089.2	7	3	4	6	7	27	6	5.4	2.1	44.61%	1.5	26.96%	Olfm1
IPI00331283.2	5	5	8	3	6	27	5	5.4	1.7	28.87%	2.5	44.41%	Pdk2
IPI00331394.3	7	10	6	4	0	27	6	5.4	2.1	27.15%	3.1	91.65%	Ppp2r5d
IPI00404474.1	8	2	6	9	2	27	6	5.4	3.1	57.28%	3.5	61.97%	Sf3a1
IPI00153501.5	12	0	15	0	0	27	0	5.4	7.9	88.19%	8.7	173.21%	Syt5

IPI00387318.3	5	9	4	9	0	27	5	5.4	2.6	44.10%	4.5	104.06%	Trim28
IPI00648214.1	8	6	8	5	0	27	6	5.4	1.2	15.75%	4.0	93.26%	Wdr47
IPI00132529.2	7	8	6	4	2	27	6	5.4	1.0	14.29%	2.0	50.00%	Xpo7
IPI00318545.3	4	7	5	5	5	26	5	5.2	1.5	28.64%	0.0	0.00%	1500001M20Rik
IPI00648981.1	7	7	6	4	2	26	6	5.2	0.6	8.66%	2.0	50.00%	Acaca
IPI00749720.1	7	4	4	8	3	26	4	5.2	1.7	34.64%	2.6	52.92%	Ak2
IPI00337930.4	4	4	8	4	6	26	4	5.2	2.3	43.30%	2.0	33.33%	Ap1m1
IPI00466878.1	7	5	5	5	4	26	5	5.2	1.2	20.38%	0.6	12.37%	Bcam
IPI00776252.1	4	9	5	4	4	26	4	5.2	2.6	44.10%	0.6	13.32%	Cacna1e
IPI00875550.1	9	4	2	7	4	26	4	5.2	3.6	72.11%	2.5	58.08%	Centa1
IPI00762081.1	8	4	0	4	10	26	4	5.2	4.0	100.00%	5.0	107.85%	Coro1a
IPI00775807.1	7	4	8	5	2	26	5	5.2	2.1	32.87%	3.0	60.00%	F11r
IPI00775975.1	6	5	6	4	5	26	5	5.2	0.6	10.19%	1.0	20.00%	Glo1
IPI00278611.6	4	5	5	7	5	26	5	5.2	0.6	12.37%	1.2	20.38%	Hhatl
IPI00126343.1	8	0	18	0	0	26	0	5.2	9.0	104.06%	10.4	173.21%	Hspa1a
IPI00135977.3	4	4	6	4	8	26	4	5.2	1.2	24.74%	2.0	33.33%	Kcna1
IPI00475378.4	8	7	6	2	3	26	6	5.2	1.0	14.29%	2.1	56.77%	Lyn
IPI00467127.4	6	5	6	5	4	26	5	5.2	0.6	10.19%	1.0	20.00%	Magi1
IPI00464256.2	5	9	8	0	4	26	5	5.2	2.1	28.39%	4.0	100.00%	Mapk3
IPI00320378.3	6	9	8	0	3	26	6	5.2	1.5	19.92%	4.0	110.22%	Naga
IPI00129164.1	10	2	0	0	14	26	2	5.2	5.3	132.29%	8.1	173.21%	Ndrg4
IPI00135698.1	8	4	6	8	0	26	6	5.2	2.0	33.33%	4.2	89.21%	Numa1
IPI00315808.3	4	6	0	8	8	26	6	5.2	3.1	91.65%	4.6	86.60%	Park7
IPI00137206.1	4	6	5	8	3	26	5	5.2	1.0	20.00%	2.5	47.19%	Pdcd6
IPI00130949.2	5	5	5	5	6	26	5	5.2	0.0	0.00%	0.6	10.83%	Pex14
IPI00226563.4	5	4	5	7	5	26	5	5.2	0.6	12.37%	1.2	20.38%	Pgd
IPI00876541.1	8	5	5	6	2	26	5	5.2	1.7	28.87%	2.1	48.04%	Pgs1
IPI00664442.3	8	4	4	7	3	26	4	5.2	2.3	43.30%	2.1	44.61%	Pip4k2b
IPI00123129.1	8	4	4	7	3	26	4	5.2	2.3	43.30%	2.1	44.61%	Praf2
IPI00222125.1	7	4	7	5	3	26	5	5.2	1.7	28.87%	2.0	40.00%	Psmc3
IPI00227260.4	9	4	9	4	0	26	4	5.2	2.9	39.36%	4.5	104.06%	Rpl3
IPI00122297.5	4	3	6	4	9	26	4	5.2	1.5	35.25%	2.5	39.74%	Scg5
IPI00121362.2	4	8	9	5	0	26	5	5.2	2.6	37.80%	4.5	96.63%	Snrpd1
IPI00187407.4	7	8	7	4	0	26	7	5.2	0.6	7.87%	3.5	95.78%	Srprb

IPI00336318.1	8	6	6	3	3	26	6	5.2	1.2	17.32%	1.7	43.30%	Tdrkh
IPI00125813.1	6	10	6	4	0	26	6	5.2	2.3	31.49%	3.1	91.65%	Tmed9
IPI00132600.1	7	6	7	3	3	26	6	5.2	0.6	8.66%	2.3	53.29%	Tmem43
IPI00410904.1	7	3	2	6	8	26	6	5.2	2.6	66.14%	3.1	57.28%	Txndc13
IPI00622540.2	0	7	7	8	4	26	7	5.2	4.0	86.60%	2.1	32.87%	Wasf3
IPI00130322.5	5	6	3	9	3	26	5	5.2	1.5	32.73%	3.5	69.28%	Wfs1
IPI00323554.3	8	4	5	6	2	25	5	5.0	2.1	36.74%	2.1	48.04%	Actr10
IPI00123183.3	11	2	5	4	3	25	4	5.0	4.6	76.38%	1.0	25.00%	AI464131
IPI00312128.3	9	3	5	4	4	25	4	5.0	3.1	53.91%	0.6	13.32%	Akap12
IPI00227832.8	4	3	9	6	3	25	4	5.0	3.2	60.27%	3.0	50.00%	Aqp1
IPI00262198.6	3	4	11	0	7	25	4	5.0	4.4	72.65%	5.6	92.80%	Asna1
IPI00624653.1	3	9	2	7	4	25	4	5.0	3.8	81.13%	2.5	58.08%	Cndp2
IPI00114256.2	5	7	4	6	3	25	5	5.0	1.5	28.64%	1.5	35.25%	Cyp2j9
IPI00132194.3	2	9	7	3	4	25	4	5.0	3.6	60.09%	2.1	44.61%	Dhrs7
IPI00137601.2	5	5	6	5	4	25	5	5.0	0.6	10.83%	1.0	20.00%	Dlgap1
IPI00720005.1	6	7	6	6	0	25	6	5.0	0.6	9.12%	3.5	86.60%	ENSMUSG00000059179
IPI00666885.2	8	7	6	4	0	25	6	5.0	1.0	14.29%	3.1	91.65%	ENSMUSG00000060419
IPI00227035.2	9	6	7	0	3	25	6	5.0	1.5	20.83%	3.5	105.36%	Epb4.2
IPI00667787.1	8	2	6	7	2	25	6	5.0	3.1	57.28%	2.6	52.92%	Eps15
IPI00121013.1	0	10	8	7	0	25	7	5.0	5.3	88.19%	4.4	87.18%	Flnc
IPI00459642.1	8	4	5	3	5	25	5	5.0	2.1	36.74%	1.2	26.65%	Gcs1
IPI00344142.4	4	5	8	6	2	25	5	5.0	2.1	36.74%	3.1	57.28%	Glb1
IPI00853823.2	6	4	4	4	7	25	4	5.0	1.2	24.74%	1.7	34.64%	Grm1
IPI00624863.1	6	7	6	6	0	25	6	5.0	0.6	9.12%	3.5	86.60%	Hnrpa3
IPI00344734.3	6	7	4	5	3	25	5	5.0	1.5	26.96%	1.0	25.00%	Hrsp12
IPI00274222.2	6	3	6	5	5	25	5	5.0	1.7	34.64%	0.6	10.83%	Itga3
IPI00221921.5	5	2	7	5	6	25	5	5.0	2.5	53.93%	1.0	16.67%	Kpna4
IPI00117264.1	6	7	6	6	0	25	6	5.0	0.6	9.12%	3.5	86.60%	LOC545592
IPI00136475.1	6	7	7	5	0	25	6	5.0	0.6	8.66%	3.6	90.14%	March5
IPI00848939.1	7	5	5	4	4	25	5	5.0	1.2	20.38%	0.6	13.32%	mt-Atp8
IPI00828826.1	4	7	7	4	3	25	4	5.0	1.7	28.87%	2.1	44.61%	Ncstn
IPI00321734.7	6	6	5	5	3	25	5	5.0	0.6	10.19%	1.2	26.65%	Nos1
IPI00127596.1	4	6	6	5	4	25	5	5.0	1.2	21.65%	1.0	20.00%	Nsdhl
IPI00111045.1	7	5	6	3	4	25	5	5.0	1.0	16.67%	1.5	35.25%	Ocln

IPI00115544.1	5	7	5	6	2	25	5	5.0	1.2	20.38%	2.1	48.04%	Pex5l
IPI00469227.2	7	5	5	5	3	25	5	5.0	1.2	20.38%	1.2	26.65%	Pgls
IPI00315463.4	5	6	4	7	3	25	5	5.0	1.0	20.00%	2.1	44.61%	Prrt3
IPI00128904.1	9	4	6	6	0	25	6	5.0	2.5	39.74%	3.5	86.60%	Psmb2
IPI00831223.1	2	7	6	3	7	25	6	5.0	2.6	52.92%	2.1	39.03%	Pvrl1
IPI00113262.1	5	5	4	7	4	25	5	5.0	0.6	12.37%	1.7	34.64%	Rdh14
IPI00284521.9	8	7	6	4	0	25	6	5.0	1.0	14.29%	3.1	91.65%	Rps16
IPI00457661.5	5	5	7	4	4	25	5	5.0	1.2	20.38%	1.7	34.64%	Rufy3
IPI00125970.1	4	8	6	4	3	25	4	5.0	2.0	33.33%	1.5	35.25%	Slc9a1
IPI00653566.1	2	3	9	6	4	24	4	4.8	3.8	81.13%	2.5	39.74%	6430704M03Rik
IPI00221486.1	7	5	4	8	0	24	5	4.8	1.5	28.64%	4.0	100.00%	Arhgap1
IPI00387216.1	7	3	6	5	3	24	5	4.8	2.1	39.03%	1.5	32.73%	Atp13a5
IPI00785452.1	3	6	5	6	4	24	5	4.8	1.5	32.73%	1.0	20.00%	AU040829
IPI00788326.1	7	2	5	4	6	24	5	4.8	2.5	53.93%	1.0	20.00%	BC026585
IPI00678133.3	5	0	8	4	7	24	5	4.8	4.0	93.26%	2.1	32.87%	Bpnt1
IPI00454120.1	5	7	5	5	2	24	5	4.8	1.2	20.38%	1.7	43.30%	C85492
IPI00112001.1	4	5	3	5	7	24	5	4.8	1.0	25.00%	2.0	40.00%	Ccdc44
IPI00831371.1	4	6	5	4	5	24	5	4.8	1.0	20.00%	0.6	12.37%	Cops3
IPI00330323.1	4	7	6	2	5	24	5	4.8	1.5	26.96%	2.1	48.04%	Cops4
IPI00330619.3	2	9	4	5	4	24	4	4.8	3.6	72.11%	0.6	13.32%	Cops8
IPI00113738.2	3	8	5	4	4	24	4	4.8	2.5	47.19%	0.6	13.32%	Cpne2
IPI00624501.2	7	5	4	4	4	24	4	4.8	1.5	28.64%	0.0	0.00%	Cryz
IPI00270496.5	5	12	7	0	0	24	5	4.8	3.6	45.07%	4.0	173.21%	Dab2ip
IPI00409462.2	7	5	4	4	4	24	4	4.8	1.5	28.64%	0.0	0.00%	Dgkb
IPI00380817.6	2	10	5	4	3	24	4	4.8	4.0	71.32%	1.0	25.00%	Eif4h
IPI00458074.3	4	6	9	5	0	24	5	4.8	2.5	39.74%	4.5	96.63%	Fis1
IPI00126759.6	6	3	2	6	7	24	6	4.8	2.1	56.77%	2.6	52.92%	Folr1
IPI00115668.1	7	3	7	5	2	24	5	4.8	2.3	40.75%	2.5	53.93%	Hapln4
IPI00310701.4	4	4	6	6	4	24	4	4.8	1.2	24.74%	1.2	21.65%	Hdhd2
IPI00223415.3	5	5	6	2	6	24	5	4.8	0.6	10.83%	2.3	49.49%	Hsdl1
IPI00131830.1	0	24	0	0	0	24	0	4.8	13.9	173.21%	0.0	#DIV/0!	Krt6a
IPI00123104.1	0	15	0	9	0	24	0	4.8	8.7	173.21%	5.2	173.21%	mCG_121688
IPI00129276.1	5	5	7	5	2	24	5	4.8	1.2	20.38%	2.5	53.93%	Mlc1
IPI00129264.1	8	6	5	3	2	24	5	4.8	1.5	24.12%	1.5	45.83%	Mlycd

IPI00109611.1	8	7	0	6	3	24	6	4.8	4.4	87.18%	3.0	100.00%	mt-Atp6
IPI00230034.5	10	3	2	5	4	24	4	4.8	4.4	87.18%	1.5	41.66%	Mtch1
IPI00755161.2	6	3	11	2	2	24	3	4.8	4.0	60.62%	5.2	103.92%	Nol5a
IPI00330477.4	3	7	5	7	2	24	5	4.8	2.0	40.00%	2.5	53.93%	Nup214
IPI00318485.3	10	3	0	0	11	24	3	4.8	5.1	118.42%	6.4	173.21%	Opa3
IPI00109142.4	6	4	2	7	5	24	5	4.8	2.0	50.00%	2.5	53.93%	Pafah1b1
IPI00323349.2	5	6	6	4	3	24	5	4.8	0.6	10.19%	1.5	35.25%	Pcyox1l
IPI00120080.2	4	3	3	4	10	24	4	4.8	0.6	17.32%	3.8	66.81%	Psma3
IPI00553717.6	5	4	6	6	3	24	5	4.8	1.0	20.00%	1.7	34.64%	Psma7
IPI00262114.1	6	3	2	13	0	24	3	4.8	2.1	56.77%	7.0	140.00%	Sf3a3
IPI00137706.1	3	4	9	8	0	24	4	4.8	3.2	60.27%	4.9	87.05%	Sfrs7
IPI00116554.2	6	7	6	2	3	24	6	4.8	0.6	9.12%	2.1	56.77%	Slc30a9
IPI00421081.3	8	4	7	2	3	24	4	4.8	2.1	32.87%	2.6	66.14%	Snph
IPI00130640.5	7	4	5	5	3	24	5	4.8	1.5	28.64%	1.2	26.65%	Snx27
IPI00130307.1	8	4	3	5	4	24	4	4.8	2.6	52.92%	1.0	25.00%	Tpm4
IPI00120592.1	6	6	7	5	0	24	6	4.8	0.6	9.12%	3.6	90.14%	Ube2v2
IPI00331251.1	8	3	3	4	6	24	4	4.8	2.9	61.86%	1.5	35.25%	Vps45
IPI00123891.3	5	4	6	5	3	23	5	4.6	1.0	20.00%	1.5	32.73%	6330407J23Rik
IPI00123709.1	7	4	8	0	4	23	4	4.6	2.1	32.87%	4.0	100.00%	Abca7
IPI00849927.1	4	5	6	4	4	23	4	4.6	1.0	20.00%	1.2	24.74%	Ablim2
IPI00223882.5	4	5	5	5	4	23	5	4.6	0.6	12.37%	0.6	12.37%	Acad8
IPI00653743.1	9	5	5	4	0	23	5	4.6	2.3	36.46%	2.6	88.19%	Aifm3
IPI00323796.3	6	4	6	5	2	23	5	4.6	1.2	21.65%	2.1	48.04%	Capn5
IPI00458711.2	4	5	5	5	4	23	5	4.6	0.6	12.37%	0.6	12.37%	Clu
IPI00113992.2	4	10	5	4	0	23	4	4.6	3.2	50.76%	2.6	88.19%	Crip2
IPI00662277.1	5	5	4	5	4	23	5	4.6	0.6	12.37%	0.6	13.32%	Cul2
IPI00114833.1	7	3	6	4	3	23	4	4.6	2.1	39.03%	1.5	35.25%	Cul3
IPI00132966.3	7	4	7	3	2	23	4	4.6	1.7	28.87%	2.6	66.14%	Dhodh
IPI00134137.1	7	3	5	6	2	23	5	4.6	2.0	40.00%	2.1	48.04%	Dpm1
IPI00122346.2	8	8	5	0	2	23	5	4.6	1.7	24.74%	2.5	107.85%	Ehd2
IPI00131584.1	4	5	8	4	2	23	4	4.6	2.1	36.74%	3.1	65.47%	Ergic1
IPI00136402.2	2	7	5	5	4	23	5	4.6	2.5	53.93%	0.6	12.37%	Esd
IPI00134997.3	7	2	5	4	5	23	5	4.6	2.5	53.93%	0.6	12.37%	Exoc7
IPI00119116.1	5	9	5	2	2	23	5	4.6	2.3	36.46%	1.7	57.74%	Fkbp8

IPI00223371.2	8	4	6	3	2	23	4	4.6	2.0	33.33%	2.1	56.77%	Fry
IPI00830222.1	5	6	5	5	2	23	5	4.6	0.6	10.83%	1.7	43.30%	Gaa
IPI00265107.4	5	8	4	4	2	23	4	4.6	2.1	36.74%	1.2	34.64%	Gabra1
IPI00118674.7	4	3	3	2	11	23	3	4.6	0.6	17.32%	4.9	92.49%	Glrx5
IPI00331519.2	5	0	4	4	10	23	4	4.6	2.6	88.19%	3.5	57.74%	Hdhd3
IPI00848482.1	6	8	4	5	0	23	5	4.6	2.0	33.33%	2.6	88.19%	Hspb1
IPI00230440.6	6	5	5	3	4	23	5	4.6	0.6	10.83%	1.0	25.00%	Lrig1
IPI00402968.1	5	4	5	4	5	23	5	4.6	0.6	12.37%	0.6	12.37%	Ly6a
IPI00331014.1	2	8	5	4	4	23	4	4.6	3.0	60.00%	0.6	13.32%	Ndufb2
IPI00129423.1	5	5	3	6	4	23	5	4.6	1.2	26.65%	1.5	35.25%	Nup98
IPI00223216.5	6	0	5	8	4	23	5	4.6	3.2	87.67%	2.1	36.74%	Pacs1
IPI00131994.1	4	4	3	9	3	23	4	4.6	0.6	15.75%	3.5	69.28%	Pitpnm1
IPI00136246.1	6	5	6	3	3	23	5	4.6	0.6	10.19%	1.7	43.30%	Pnpla8
IPI00228877.1	4	4	5	5	5	23	5	4.6	0.6	13.32%	0.0	0.00%	Ppp1r9a
IPI00138190.1	2	9	8	4	0	23	4	4.6	3.8	59.78%	4.0	100.00%	Psmb3
IPI00116896.1	3	8	5	5	2	23	5	4.6	2.5	47.19%	1.7	43.30%	Psmd5
IPI00132093.1	3	5	7	8	0	23	5	4.6	2.0	40.00%	4.4	87.18%	Pvalb
IPI00229722.3	5	7	6	5	0	23	5	4.6	1.0	16.67%	3.2	87.67%	Rab3gap1
IPI00124639.1	5	4	6	8	0	23	5	4.6	1.0	20.00%	4.2	89.21%	Rab3gap2
IPI00112327.1	6	5	5	5	2	23	5	4.6	0.6	10.83%	1.7	43.30%	Scye1
IPI00623737.2	7	7	3	2	4	23	4	4.6	2.3	40.75%	1.0	33.33%	Sec23a
IPI00170128.7	8	5	5	2	3	23	5	4.6	1.7	28.87%	1.5	45.83%	Shmt2
IPI00874854.1	8	5	2	5	3	23	5	4.6	3.0	60.00%	1.5	45.83%	Snd1
IPI00331444.7	5	5	5	5	3	23	5	4.6	0.0	0.00%	1.2	26.65%	Sypl
IPI00170213.1	7	3	4	5	4	23	4	4.6	2.1	44.61%	0.6	13.32%	Tmem16f
IPI00129491.1	7	0	7	3	6	23	6	4.6	4.0	86.60%	2.1	39.03%	Txn2
IPI00468674.5	6	4	5	5	3	23	5	4.6	1.0	20.00%	1.2	26.65%	Txnrd1
IPI00322497.4	5	0	4	6	7	22	5	4.4	2.6	88.19%	1.5	26.96%	1810026J23Rik
IPI00119680.3	7	3	6	4	2	22	4	4.4	2.1	39.03%	2.0	50.00%	Acads
IPI00120085.1	4	5	5	4	4	22	4	4.4	0.6	12.37%	0.6	13.32%	Adck1
IPI00662244.2	5	5	5	4	3	22	5	4.4	0.0	0.00%	1.0	25.00%	Adcy1
IPI00162790.1	6	2	4	4	6	22	4	4.4	2.0	50.00%	1.2	24.74%	Agl
IPI00311387.1	6	4	5	3	4	22	4	4.4	1.0	20.00%	1.0	25.00%	Agpat7
IPI00310099.1	5	5	7	3	2	22	5	4.4	1.2	20.38%	2.6	66.14%	Arl6ip2

IPI00331644.5	7	3	7	3	2	22	3	4.4	2.3	40.75%	2.6	66.14%	Cacng8
IPI00230277.3	6	4	7	5	0	22	5	4.4	1.5	26.96%	3.6	90.14%	Cobll1
IPI00130240.1	6	4	6	3	3	22	4	4.4	1.2	21.65%	1.7	43.30%	D3Bwg0562e
IPI00454008.1	6	2	4	7	3	22	4	4.4	2.0	50.00%	2.1	44.61%	Dkc1
IPI00130381.1	4	6	6	4	2	22	4	4.4	1.2	21.65%	2.0	50.00%	Dnajc13
IPI00119432.1	0	0	22	0	0	22	0	4.4	12.7	173.21%	12.7	173.21%	EG629557
IPI00620040.3	6	4	3	3	6	22	4	4.4	1.5	35.25%	1.7	43.30%	Gstz1
IPI00320303.1	7	4	6	5	0	22	5	4.4	1.5	26.96%	3.2	87.67%	Hnrpd
IPI00750694.2	8	0	0	10	4	22	4	4.4	4.6	173.21%	5.0	107.85%	Klc2
IPI00112126.1	5	4	6	4	3	22	4	4.4	1.0	20.00%	1.5	35.25%	Krt74
IPI00659608.4	4	5	4	7	2	22	4	4.4	0.6	13.32%	2.5	58.08%	Mapre1
IPI00132444.1	5	3	8	3	3	22	3	4.4	2.5	47.19%	2.9	61.86%	Mcee
IPI00380280.3	3	7	5	4	3	22	4	4.4	2.0	40.00%	1.0	25.00%	Mcts1
IPI00474631.6	5	4	6	3	4	22	4	4.4	1.0	20.00%	1.5	35.25%	Mllt4
IPI00114866.1	6	4	7	5	0	22	5	4.4	1.5	26.96%	3.6	90.14%	Osbpl1a
IPI00312752.3	8	3	2	6	3	22	3	4.4	3.2	74.18%	2.1	56.77%	Pak3
IPI00762331.2	5	2	5	4	6	22	5	4.4	1.7	43.30%	1.0	20.00%	Ppp1r9b
IPI00170008.1	0	0	0	0	22	22	0	4.4	0.0	#DIV/0!	12.7	173.21%	Ppp2r1b
IPI00108125.4	3	9	0	4	6	22	4	4.4	4.6	114.56%	3.1	91.65%	Psma6
IPI00224073.3	5	5	6	3	3	22	5	4.4	0.6	10.83%	1.7	43.30%	Psmc1
IPI00356063.2	8	6	2	4	2	22	4	4.4	3.1	57.28%	1.2	43.30%	Ptpn11
IPI00221547.4	8	4	3	4	3	22	4	4.4	2.6	52.92%	0.6	17.32%	Pzp
IPI00130624.1	5	7	8	2	0	22	5	4.4	1.5	22.91%	4.2	124.90%	Rpl18a
IPI00132456.1	6	7	6	0	3	22	6	4.4	0.6	9.12%	3.0	100.00%	Slc12a9
IPI00556823.3	7	6	5	2	2	22	5	4.4	1.0	16.67%	1.7	57.74%	Slc25a20
IPI00320850.3	4	0	7	3	8	22	4	4.4	3.5	95.78%	2.6	44.10%	Slc30a3
IPI00330958.2	5	4	6	5	2	22	5	4.4	1.0	20.00%	2.1	48.04%	Slc6a9
IPI00459383.2	4	5	4	6	3	22	4	4.4	0.6	13.32%	1.5	35.25%	Stx16
IPI00349020.6	6	4	4	4	4	22	4	4.4	1.2	24.74%	0.0	0.00%	Suclg2
IPI00655150.1	5	11	6	0	0	22	5	4.4	3.2	43.83%	3.5	173.21%	Sv2c
IPI00224775.2	5	5	3	6	3	22	5	4.4	1.2	26.65%	1.7	43.30%	Usmg5
IPI00153959.1	6	5	3	4	3	21	4	4.2	1.5	32.73%	0.6	17.32%	1810027O10Rik
IPI00875497.1	4	6	4	4	3	21	4	4.2	1.2	24.74%	0.6	15.75%	Abhd11
IPI00136984.1	5	2	4	6	4	21	4	4.2	1.5	41.66%	1.2	24.74%	AI595406

IPI00221685.1	6	3	3	4	5	21	4	4.2	1.7	43.30%	1.0	25.00%	Armc1
IPI00420726.3	4	3	4	6	4	21	4	4.2	0.6	15.75%	1.2	24.74%	Atcay
IPI00137460.3	4	5	6	4	2	21	4	4.2	1.0	20.00%	2.0	50.00%	Bmpr2
IPI00469318.1	7	4	5	5	0	21	5	4.2	1.5	28.64%	2.9	86.60%	Cacnb3
IPI00112555.3	6	2	5	5	3	21	5	4.2	2.1	48.04%	1.2	26.65%	Cdh13
IPI00755309.1	3	7	3	5	3	21	3	4.2	2.3	53.29%	1.2	31.49%	Cpt1c
IPI00119615.1	8	5	4	0	4	21	4	4.2	2.1	36.74%	2.3	86.60%	Crat
IPI00139780.1	5	8	4	2	2	21	4	4.2	2.1	36.74%	1.2	43.30%	Dbnl
IPI00139259.1	3	4	4	4	6	21	4	4.2	0.6	15.75%	1.2	24.74%	Dip2b
IPI00457815.3	8	8	5	0	0	21	5	4.2	1.7	24.74%	2.9	173.21%	Dnajc13
IPI00331345.5	7	3	5	3	3	21	3	4.2	2.0	40.00%	1.2	31.49%	Dnajc3b
IPI00225267.6	6	6	6	3	0	21	6	4.2	0.0	0.00%	3.0	100.00%	Dpy19l1
IPI00330695.5	4	8	4	3	2	21	4	4.2	2.3	43.30%	1.0	33.33%	EG667977
IPI00108998.1	4	3	4	2	8	21	4	4.2	0.6	15.75%	3.1	65.47%	Exoc1
IPI00329953.1	4	7	3	7	0	21	4	4.2	2.1	44.61%	3.5	105.36%	Fah
IPI00379695.2	5	5	5	4	2	21	5	4.2	0.0	0.00%	1.5	41.66%	Gabra6
IPI00323600.4	5	5	5	2	4	21	5	4.2	0.0	0.00%	1.5	41.66%	Gars
IPI00120166.1	3	4	7	4	3	21	4	4.2	2.1	44.61%	2.1	44.61%	Gcat
IPI00153107.3	5	8	5	0	3	21	5	4.2	1.7	28.87%	2.5	94.37%	Gpc6
IPI00116850.3	6	4	3	4	4	21	4	4.2	1.5	35.25%	0.6	15.75%	Grb2
IPI00420590.3	6	4	7	4	0	21	4	4.2	1.5	26.96%	3.5	95.78%	H2-K1
IPI00120094.1	4	8	4	3	2	21	4	4.2	2.3	43.30%	1.0	33.33%	H2-Q10
IPI00874518.1	7	4	4	2	4	21	4	4.2	1.7	34.64%	1.2	34.64%	Huwe1
IPI00331064.7	4	5	4	4	4	21	4	4.2	0.6	13.32%	0.0	0.00%	Kpna6
IPI00121827.4	9	0	10	2	0	21	2	4.2	5.5	86.96%	5.3	132.29%	Krt4
IPI00554884.1	10	2	9	0	0	21	2	4.2	4.4	62.27%	5.2	173.21%	LOC637606
IPI00315187.5	5	3	3	6	4	21	4	4.2	1.2	31.49%	1.5	35.25%	Lphn2
IPI00420970.3	6	7	4	4	0	21	4	4.2	1.5	26.96%	2.3	86.60%	Mpdu1
IPI00131173.2	5	7	4	3	2	21	4	4.2	1.5	28.64%	1.0	33.33%	Mpi
IPI00112536.1	3	0	4	5	9	21	4	4.2	2.1	89.21%	2.6	44.10%	Mrpl12
IPI00775993.1	4	4	5	8	0	21	4	4.2	0.6	13.32%	4.0	93.26%	Mthfd1
IPI00308851.3	6	5	2	2	6	21	5	4.2	2.1	48.04%	2.3	69.28%	Nedd4l
IPI00114246.2	5	2	2	6	6	21	5	4.2	1.7	57.74%	2.3	49.49%	Omg
IPI00850889.1	5	3	3	6	4	21	4	4.2	1.2	31.49%	1.5	35.25%	Pcdhgc5

IPI00405114.1	5	0	4	3	9	21	4	4.2	2.6	88.19%	3.2	60.27%	Pfn2
IPI00320420.3	6	0	5	4	6	21	5	4.2	3.2	87.67%	1.0	20.00%	Phyhip
IPI00123278.1	5	5	6	3	2	21	5	4.2	0.6	10.83%	2.1	56.77%	Pld2
IPI00468633.3	5	2	4	6	4	21	4	4.2	1.5	41.66%	1.2	24.74%	Ppfia2
IPI00830853.1	6	6	3	0	6	21	6	4.2	1.7	34.64%	3.0	100.00%	Ppm2c
IPI00130992.1	4	5	4	5	3	21	4	4.2	0.6	13.32%	1.0	25.00%	Ppp5c
IPI00119180.1	5	4	7	2	3	21	4	4.2	1.5	28.64%	2.6	66.14%	Prkce
IPI00408119.6	0	0	0	10	11	21	0	4.2	0.0	#DIV/0!	6.1	86.90%	Rab6b
IPI00129964.1	3	5	5	6	2	21	5	4.2	1.2	26.65%	2.1	48.04%	Rapgef2
IPI00221782.3	3	5	6	3	4	21	4	4.2	1.5	32.73%	1.5	35.25%	Rogdi
IPI00378768.5	5	4	4	4	4	21	4	4.2	0.6	13.32%	0.0	0.00%	Rpl8
IPI00113772.1	7	5	5	4	0	21	5	4.2	1.2	20.38%	2.6	88.19%	Rps7
IPI00109108.2	9	5	2	5	0	21	5	4.2	3.5	65.85%	2.5	107.85%	Rps9
IPI00322749.3	3	4	6	4	4	21	4	4.2	1.5	35.25%	1.2	24.74%	Sh3gl1
IPI00129572.1	5	3	3	7	3	21	3	4.2	1.2	31.49%	2.3	53.29%	Sipa1l1
IPI00817008.1	4	6	6	2	3	21	4	4.2	1.2	21.65%	2.1	56.77%	Slc25a10
IPI00222760.1	7	5	7	2	0	21	5	4.2	1.2	18.23%	3.6	120.19%	Snap23
IPI00649060.1	3	6	10	2	0	21	3	4.2	3.5	55.45%	5.3	132.29%	Spcs2
IPI00225301.1	5	3	6	5	2	21	5	4.2	1.5	32.73%	2.1	48.04%	Srr
IPI00115522.3	7	0	4	5	5	21	5	4.2	3.5	95.78%	0.6	12.37%	Tnik
IPI00470095.1	4	0	5	6	6	21	5	4.2	2.6	88.19%	0.6	10.19%	Tprgl
IPI00227805.6	5	3	7	3	3	21	3	4.2	2.0	40.00%	2.3	53.29%	Ubxd1
IPI00762199.2	3	5	4	5	4	21	4	4.2	1.0	25.00%	0.6	13.32%	Vps13c
IPI00551454.3	20	0	0	0	0	20	0	4.0	11.5	173.21%	0.0	#DIV/0!	Abcb4
IPI00132217.1	2	4	2	5	7	20	4	4.0	1.2	43.30%	2.5	53.93%	Ahcy
IPI00320241.1	7	6	4	3	0	20	4	4.0	1.5	26.96%	2.1	89.21%	Ap3m1
IPI00655136.3	4	4	6	4	2	20	4	4.0	1.2	24.74%	2.0	50.00%	Arhgef7
IPI00110100.1	5	3	8	4	0	20	4	4.0	2.5	47.19%	4.0	100.00%	Atp13a1
IPI00461290.1	4	6	0	5	5	20	5	4.0	3.1	91.65%	2.9	86.60%	Ckm
IPI00473646.2	9	0	3	6	2	20	3	4.0	4.6	114.56%	2.1	56.77%	Clip2
IPI00221845.1	3	5	3	4	5	20	4	4.0	1.2	31.49%	1.0	25.00%	Csnk2b
IPI00314467.3	5	3	3	2	7	20	3	4.0	1.2	31.49%	2.6	66.14%	Cyld
IPI00396840.3	5	5	4	4	2	20	4	4.0	0.6	12.37%	1.2	34.64%	D10Wsu52e
IPI00222307.1	4	3	2	8	3	20	3	4.0	1.0	33.33%	3.2	74.18%	Dusp3

IPI00396753.2	2	6	6	4	2	20	4	4.0	2.3	49.49%	2.0	50.00%	Ecsit
IPI00624663.3	4	5	6	3	2	20	4	4.0	1.0	20.00%	2.1	56.77%	Egfr
IPI00267983.5	7	4	3	2	4	20	4	4.0	2.1	44.61%	1.0	33.33%	Eif5a
IPI00115644.2	7	5	2	4	2	20	4	4.0	2.5	53.93%	1.2	43.30%	Ephx2
IPI00671847.3	5	6	5	2	2	20	5	4.0	0.6	10.83%	1.7	57.74%	Gabbr2
IPI00761429.1	6	3	2	4	5	20	4	4.0	2.1	56.77%	1.5	41.66%	Gba
IPI00459487.3	5	5	4	3	3	20	4	4.0	0.6	12.37%	0.6	17.32%	Gng7
IPI00112616.2	7	4	3	2	4	20	4	4.0	2.1	44.61%	1.0	33.33%	Grm5
IPI00354363.3	4	6	6	4	0	20	4	4.0	1.2	21.65%	3.1	91.65%	Gsr
IPI00776018.1	7	6	4	0	3	20	4	4.0	1.5	26.96%	2.1	89.21%	Hccs
IPI00338094.6	4	4	4	5	3	20	4	4.0	0.0	0.00%	1.0	25.00%	Kcnip4
IPI00421041.5	5	6	5	4	0	20	5	4.0	0.6	10.83%	2.6	88.19%	Krt42
IPI00856490.1	8	3	2	5	2	20	3	4.0	3.2	74.18%	1.7	57.74%	Lamp1
IPI00225378.3	4	8	4	4	0	20	4	4.0	2.3	43.30%	2.3	86.60%	LOC100043780
IPI00115257.1	7	4	5	2	2	20	4	4.0	1.5	28.64%	1.7	57.74%	Lrrc8c
IPI00607957.1	6	5	3	3	3	20	3	4.0	1.5	32.73%	0.0	0.00%	Ntrk3
IPI00113798.2	4	2	4	4	6	20	4	4.0	1.2	34.64%	1.2	24.74%	Ppm1h
IPI00750473.1	12	0	4	4	0	20	4	4.0	6.1	114.56%	2.3	86.60%	Prkag1
IPI00473521.1	7	5	4	4	0	20	4	4.0	1.5	28.64%	2.3	86.60%	Ptbp1
IPI00377609.2	7	8	5	0	0	20	5	4.0	1.5	22.91%	2.9	173.21%	Rasal2
IPI00122499.5	7	7	0	6	0	20	6	4.0	4.0	86.60%	3.5	173.21%	Rcc1
IPI00315620.2	6	7	7	0	0	20	6	4.0	0.6	8.66%	4.0	173.21%	Rpl14
IPI00661338.1	4	8	4	4	0	20	4	4.0	2.3	43.30%	2.3	86.60%	Rps3a
IPI00622780.1	7	4	6	0	3	20	4	4.0	1.5	26.96%	3.0	100.00%	Scfd1
IPI00321922.2	4	6	5	5	0	20	5	4.0	1.0	20.00%	2.9	86.60%	Sfrs10
IPI00128522.1	5	2	5	6	2	20	5	4.0	1.7	43.30%	2.1	48.04%	Stmn1
IPI00674554.2	10	5	2	3	0	20	3	4.0	4.0	71.32%	1.5	91.65%	Stt3b
IPI00130988.1	4	5	5	4	2	20	4	4.0	0.6	12.37%	1.5	41.66%	Tnks1bp1
IPI00111960.2	4	2	5	3	6	20	4	4.0	1.5	41.66%	1.5	32.73%	Twf2
IPI00130758.1	5	6	0	4	4	19	4	3.8	3.2	87.67%	2.3	86.60%	2900075B16Rik
IPI00315538.6	4	6	5	2	2	19	4	3.8	1.0	20.00%	1.7	57.74%	3110047P20Rik
IPI00120546.1	4	3	9	3	0	19	3	3.8	3.2	60.27%	4.6	114.56%	9130404D14Rik
IPI00124980.1	5	2	3	2	7	19	3	3.8	1.5	45.83%	2.6	66.14%	9330129D05Rik
IPI00126500.1	9	2	6	0	2	19	2	3.8	3.5	61.97%	3.1	114.56%	Abca9

IPI00119930.2	5	2	3	2	7	19	3	3.8	1.5	45.83%	2.6	66.14%	Acad10
IPI00662721.1	4	2	4	2	7	19	4	3.8	1.2	34.64%	2.5	58.08%	Acss1
IPI00113127.7	6	5	4	2	2	19	4	3.8	1.0	20.00%	1.2	43.30%	Adpgk
IPI00877328.1	8	3	5	3	0	19	3	3.8	2.5	47.19%	2.5	94.37%	Als2
IPI00471418.1	8	6	5	0	0	19	5	3.8	1.5	24.12%	2.9	173.21%	Ank
IPI00313296.3	5	6	2	2	4	19	4	3.8	2.1	48.04%	1.2	43.30%	BC025575
IPI00857969.1	5	4	6	4	0	19	4	3.8	1.0	20.00%	3.1	91.65%	Cacnb1
IPI00277001.4	7	3	5	2	2	19	3	3.8	2.0	40.00%	1.7	57.74%	Cd99l2
IPI00109764.2	3	6	3	5	2	19	3	3.8	1.7	43.30%	1.5	45.83%	Clpp
IPI00404477.4	4	0	4	11	0	19	4	3.8	2.3	86.60%	5.6	111.36%	Col6a3
IPI00126762.1	8	0	2	4	5	19	4	3.8	4.2	124.90%	1.5	41.66%	Cpd
IPI00109891.1	4	3	3	5	4	19	4	3.8	0.6	17.32%	1.0	25.00%	Ctsa
IPI00120346.3	6	5	6	2	0	19	5	3.8	0.6	10.19%	3.1	114.56%	Cyp51
IPI00137787.3	3	5	3	3	5	19	3	3.8	1.2	31.49%	1.2	31.49%	D12Ertd553e
IPI00462006.3	5	8	3	3	0	19	3	3.8	2.5	47.19%	1.7	86.60%	Dhrs4
IPI00551399.3	5	4	4	4	2	19	4	3.8	0.6	13.32%	1.2	34.64%	Dhrs7b
IPI00459033.2	4	8	4	3	0	19	4	3.8	2.3	43.30%	2.1	89.21%	Dnajc10
IPI00115902.2	7	4	2	4	2	19	4	3.8	2.5	58.08%	1.2	43.30%	Dync1i1
IPI00408734.3	3	9	5	2	0	19	3	3.8	3.1	53.91%	2.5	107.85%	Exoc2
IPI00308609.1	0	3	6	4	6	19	4	3.8	3.0	100.00%	1.2	21.65%	Fahd1
IPI00877291.1	7	3	4	3	2	19	3	3.8	2.1	44.61%	1.0	33.33%	Fkbp4
IPI00758170.2	8	4	5	0	2	19	4	3.8	2.1	36.74%	2.5	107.85%	G6pc3
IPI00263048.1	3	2	0	8	6	19	3	3.8	1.5	91.65%	4.2	89.21%	Gabrb1
IPI00128692.1	2	6	6	5	0	19	5	3.8	2.3	49.49%	3.2	87.67%	Gabrd
IPI00342158.4	3	2	8	0	6	19	3	3.8	3.2	74.18%	4.2	89.21%	Gng13
IPI00126048.2	7	3	7	0	2	19	3	3.8	2.3	40.75%	3.6	120.19%	Gpc4
IPI00116308.1	6	6	5	0	2	19	5	3.8	0.6	10.19%	2.5	107.85%	Gpr116
IPI00652882.2	4	2	4	4	5	19	4	3.8	1.2	34.64%	0.6	13.32%	Grm7
IPI00127707.1	4	2	7	3	3	19	3	3.8	2.5	58.08%	2.3	53.29%	Itgb5
IPI00132604.3	6	5	4	2	2	19	4	3.8	1.0	20.00%	1.2	43.30%	Itm2b
IPI00123059.1	3	5	6	2	3	19	3	3.8	1.5	32.73%	2.1	56.77%	Itm2c
IPI00750671.1	6	6	4	3	0	19	4	3.8	1.2	21.65%	2.1	89.21%	Jtv1
IPI00679159.2	4	5	6	4	0	19	4	3.8	1.0	20.00%	3.1	91.65%	Kcna2
IPI00228423.1	4	7	5	3	0	19	4	3.8	1.5	28.64%	2.5	94.37%	Krt17

IPI00226730.1	8	3	3	3	2	19	3	3.8	2.9	61.86%	0.6	21.65%	Letmd1
IPI00319111.3	5	3	8	3	0	19	3	3.8	2.5	47.19%	4.0	110.22%	Lin7b
IPI00467854.1	4	7	3	3	2	19	3	3.8	2.1	44.61%	0.6	21.65%	LOC100047443
IPI00118875.4	4	8	4	0	3	19	4	3.8	2.3	43.30%	2.1	89.21%	Mrs2l
IPI00320687.2	4	9	0	4	2	19	4	3.8	4.5	104.06%	2.0	100.00%	Ndufa7
IPI00322209.5	6	5	4	4	0	19	4	3.8	1.0	20.00%	2.3	86.60%	Pcbp2
IPI00135087.3	3	8	5	0	3	19	3	3.8	2.5	47.19%	2.5	94.37%	Plaa
IPI00119220.1	11	0	2	6	0	19	2	3.8	5.9	135.22%	3.1	114.56%	Pld1
IPI00317074.3	3	5	3	2	6	19	3	3.8	1.2	31.49%	2.1	56.77%	Pnpla6
IPI00648688.3	0	0	0	0	19	19	0	3.8	0.0	#DIV/0!	11.0	173.21%	Ppp2cb
IPI00229605.2	5	2	3	5	4	19	4	3.8	1.5	45.83%	1.0	25.00%	Pycr2
IPI00474558.7	2	6	0	6	5	19	5	3.8	3.1	114.56%	3.2	87.67%	Rp2h
IPI00468688.4	8	4	7	0	0	19	4	3.8	2.1	32.87%	4.0	173.21%	Rpl5
IPI00875190.2	5	4	7	3	0	19	4	3.8	1.5	28.64%	3.5	105.36%	Rps3
IPI00674255.2	6	3	2	6	2	19	3	3.8	2.1	56.77%	2.3	69.28%	Sema4a
IPI00222632.3	6	5	0	6	2	19	5	3.8	3.2	87.67%	3.1	114.56%	Slc39a12
IPI00315964.1	6	0	5	8	0	19	5	3.8	3.2	87.67%	4.0	93.26%	Slc4a7
IPI00411102.3	5	5	0	2	7	19	5	3.8	2.9	86.60%	3.6	120.19%	Thbd
IPI00121277.1	3	5	0	2	9	19	3	3.8	2.5	94.37%	4.7	128.89%	Tsfm
IPI00330482.1	4	9	4	2	0	19	4	3.8	2.9	50.94%	2.0	100.00%	U2af2
IPI00321617.1	6	3	4	4	2	19	4	3.8	1.5	35.25%	1.2	34.64%	Vps26b
IPI00648318.1	2	4	4	4	4	18	4	3.6	1.2	34.64%	0.0	0.00%	2400001E08Rik
IPI00172189.1	5	2	4	5	2	18	4	3.6	1.5	41.66%	1.5	41.66%	4930572J05Rik
IPI00226414.7	6	6	2	4	0	18	4	3.6	2.3	49.49%	2.0	100.00%	4932438A13Rik
IPI00469218.1	5	7	3	0	3	18	3	3.6	2.0	40.00%	1.7	86.60%	Abcb6
IPI00719967.1	4	2	2	6	4	18	4	3.6	1.2	43.30%	2.0	50.00%	Abcb8
IPI00130419.1	3	3	7	3	2	18	3	3.6	2.3	53.29%	2.6	66.14%	Atic
IPI00129187.1	5	5	2	4	2	18	4	3.6	1.7	43.30%	1.2	43.30%	Bat3
IPI00344681.2	7	2	4	3	2	18	3	3.6	2.5	58.08%	1.0	33.33%	Bckdha
IPI00315879.1	3	3	4	3	5	18	3	3.6	0.6	17.32%	1.0	25.00%	Camk4
IPI00223757.4	3	6	3	4	2	18	3	3.6	1.7	43.30%	1.0	33.33%	Cd44
IPI00323974.7	6	0	2	8	2	18	2	3.6	3.1	114.56%	3.5	86.60%	Cdk5
IPI00133948.1	0	4	5	7	2	18	4	3.6	2.6	88.19%	2.5	53.93%	Chgb
IPI00881287.1	4	0	5	5	4	18	4	3.6	2.6	88.19%	0.6	12.37%	Clasp1

IPI00624881.4	7	0	5	3	3	18	3	3.6	3.6	90.14%	1.2	31.49%	Coasy
IPI00881291.1	7	5	4	0	2	18	4	3.6	1.5	28.64%	2.0	100.00%	D030074E01Rik
IPI00658539.1	0	7	4	4	3	18	4	3.6	3.5	95.78%	0.6	15.75%	Ddt
IPI00134599.1	4	3	5	3	3	18	3	3.6	1.0	25.00%	1.2	31.49%	Dlgap2
IPI00136505.1	3	5	4	0	6	18	4	3.6	1.0	25.00%	3.1	91.65%	Dlgap4
IPI00112785.1	10	2	0	6	0	18	2	3.6	5.3	132.29%	3.5	173.21%	EG620248
IPI00621076.2	4	4	7	3	0	18	4	3.6	1.7	34.64%	3.5	105.36%	Endog
IPI00135267.1	5	6	2	3	2	18	3	3.6	2.1	48.04%	0.6	24.74%	Gpc1
IPI00115763.2	4	4	3	4	3	18	4	3.6	0.6	15.75%	0.6	17.32%	H2-Ke6
IPI00749655.2	6	4	0	8	0	18	4	3.6	3.1	91.65%	4.6	173.21%	Hdac2
IPI00113746.3	5	3	5	3	2	18	3	3.6	1.2	26.65%	1.5	45.83%	Icam2
IPI00378015.1	5	2	0	4	7	18	4	3.6	2.5	107.85%	3.5	95.78%	Kif21a
IPI00136618.1	8	3	5	0	2	18	3	3.6	2.5	47.19%	2.5	107.85%	Lpcat1
IPI00649958.4	3	6	6	0	3	18	3	3.6	1.7	34.64%	3.0	100.00%	Mvp
IPI00857740.1	5	5	3	5	0	18	5	3.6	1.2	26.65%	2.5	94.37%	Nes
IPI00123349.2	4	3	3	6	2	18	3	3.6	0.6	17.32%	2.1	56.77%	Nptx1
IPI00420807.3	3	7	4	2	2	18	3	3.6	2.1	44.61%	1.2	43.30%	Pdgfrb
IPI00132475.2	3	2	5	2	6	18	3	3.6	1.5	45.83%	2.1	48.04%	Phyhipl
IPI00229184.3	5	0	5	3	5	18	5	3.6	2.9	86.60%	1.2	26.65%	Plcb3
IPI00135560.1	5	3	2	2	6	18	3	3.6	1.5	45.83%	2.3	69.28%	Pmpcb
IPI00331631.1	6	5	0	5	2	18	5	3.6	3.2	87.67%	2.5	107.85%	Pnn
IPI00157497.8	5	0	6	7	0	18	5	3.6	3.2	87.67%	3.8	87.37%	Polr2a
IPI00170013.1	5	4	6	3	0	18	4	3.6	1.0	20.00%	3.0	100.00%	Pptc7
IPI00653307.1	4	3	3	4	4	18	4	3.6	0.6	17.32%	0.6	15.75%	Psma1
IPI00153144.3	5	5	0	0	8	18	5	3.6	2.9	86.60%	4.6	173.21%	Psmd14
IPI00226854.2	3	4	3	6	2	18	3	3.6	0.6	17.32%	2.1	56.77%	Ptcd3
IPI00230550.1	3	6	5	4	0	18	4	3.6	1.5	32.73%	2.6	88.19%	Ptdss1
IPI00171981.2	5	8	3	2	0	18	3	3.6	2.5	47.19%	1.5	91.65%	Qars
IPI00223759.2	8	0	4	3	3	18	3	3.6	4.0	100.00%	0.6	17.32%	Scn2b
IPI00875929.1	4	6	4	4	0	18	4	3.6	1.2	24.74%	2.3	86.60%	Slc25a40
IPI00125397.1	3	4	5	3	3	18	3	3.6	1.0	25.00%	1.2	31.49%	Ssr4
IPI00228907.3	5	6	3	0	4	18	4	3.6	1.5	32.73%	2.1	89.21%	Tek
IPI00133977.3	3	3	2	5	5	18	3	3.6	0.6	21.65%	1.7	43.30%	Them2
IPI00129968.2	5	6	4	3	0	18	4	3.6	1.0	20.00%	2.1	89.21%	Tmem49

IPI00169896.1	3	4	3	3	5	18	3	3.6	0.6	17.32%	1.2	31.49%	Tollip
IPI00331577.4	5	2	3	6	2	18	3	3.6	1.5	45.83%	2.1	56.77%	Ttc35
IPI00130733.3	5	2	4	2	5	18	4	3.6	1.5	41.66%	1.5	41.66%	Tubg1
IPI00117828.1	2	5	6	5	0	18	5	3.6	2.1	48.04%	3.2	87.67%	Vac14
IPI00338270.5	4	4	4	3	2	17	4	3.4	0.0	0.00%	1.0	33.33%	1110014N23Rik
IPI00128323.3	3	5	4	3	2	17	3	3.4	1.0	25.00%	1.0	33.33%	2700060E02Rik
IPI00165794.1	6	5	6	0	0	17	5	3.4	0.6	10.19%	3.5	173.21%	AA536749
IPI00108372.1	4	5	6	2	0	17	4	3.4	1.0	20.00%	3.1	114.56%	Agpat5
IPI00129388.1	3	6	6	2	0	17	3	3.4	1.7	34.64%	3.1	114.56%	Ankrd47
IPI00129774.1	4	5	4	4	0	17	4	3.4	0.6	13.32%	2.3	86.60%	Arl15
IPI00131224.1	5	5	2	2	3	17	3	3.4	1.7	43.30%	0.6	24.74%	Aspa
IPI00845690.1	3	6	2	3	3	17	3	3.4	2.1	56.77%	0.6	21.65%	Atp6v1g2
IPI00109904.3	3	5	4	5	0	17	4	3.4	1.0	25.00%	2.6	88.19%	Bat1a
IPI00134704.1	4	2	4	3	4	17	4	3.4	1.2	34.64%	0.6	15.75%	Centg1
IPI00131845.1	2	3	2	7	3	17	3	3.4	0.6	24.74%	2.6	66.14%	Centg3
IPI00459443.5	4	3	3	2	5	17	3	3.4	0.6	17.32%	1.5	45.83%	Cgnl1
IPI00410802.2	4	5	2	3	3	17	3	3.4	1.5	41.66%	0.6	21.65%	Chchd3
IPI00117981.1	5	6	4	2	0	17	4	3.4	1.0	20.00%	2.0	100.00%	Cox4i2
IPI00154056.1	2	2	4	3	6	17	3	3.4	1.2	43.30%	1.5	35.25%	Cspg4
IPI00330497.4	5	3	4	3	2	17	3	3.4	1.0	25.00%	1.0	33.33%	Dao1
IPI00467383.2	6	0	3	4	4	17	4	3.4	3.0	100.00%	0.6	15.75%	Dgkz
IPI00131566.2	3	5	4	5	0	17	4	3.4	1.0	25.00%	2.6	88.19%	EG268795
IPI00110402.1	3	5	4	5	0	17	4	3.4	1.0	25.00%	2.6	88.19%	EG622727
IPI00224689.3	0	6	4	5	2	17	4	3.4	3.1	91.65%	1.5	41.66%	Garnl4
IPI00138180.2	3	6	3	3	2	17	3	3.4	1.7	43.30%	0.6	21.65%	Gas7
IPI00850413.1	7	5	0	2	3	17	3	3.4	3.6	90.14%	1.5	91.65%	Gcdh
IPI00133110.1	3	4	5	3	2	17	3	3.4	1.0	25.00%	1.5	45.83%	Homer3
IPI00120115.2	4	6	4	3	0	17	4	3.4	1.2	24.74%	2.1	89.21%	Krt15
IPI00470956.1	2	6	0	5	4	17	4	3.4	3.1	114.56%	2.6	88.19%	Lingo1
IPI00653571.1	5	7	5	0	0	17	5	3.4	1.2	20.38%	2.9	173.21%	Lman1
IPI00336881.1	6	0	3	4	4	17	4	3.4	3.0	100.00%	0.6	15.75%	LOC100045062
IPI00121190.1	5	2	4	4	2	17	4	3.4	1.5	41.66%	1.2	34.64%	LOC676948
IPI00830443.1	6	3	3	0	5	17	3	3.4	1.7	43.30%	2.5	94.37%	Magi2
IPI00421126.5	7	5	3	2	0	17	3	3.4	2.0	40.00%	1.5	91.65%	Mcam

IPI00111359.2	4	4	4	5	0	17	4	3.4	0.0	0.00%	2.6	88.19%	Mertk
IPI00625441.3	6	4	3	2	2	17	3	3.4	1.5	35.25%	0.6	24.74%	Mon2
IPI00221616.5	5	3	2	3	4	17	3	3.4	1.5	45.83%	1.0	33.33%	Mpp3
IPI00124610.1	3	5	3	3	3	17	3	3.4	1.2	31.49%	0.0	0.00%	Ndufa2
IPI00622878.4	4	7	4	2	0	17	4	3.4	1.7	34.64%	2.0	100.00%	Ndufb3
IPI00129792.1	4	0	5	6	2	17	4	3.4	2.6	88.19%	2.1	48.04%	Nup93
IPI00222457.2	4	8	2	3	0	17	3	3.4	3.1	65.47%	1.5	91.65%	Nupl1
IPI00658499.1	9	2	2	0	4	17	2	3.4	4.0	93.26%	2.0	100.00%	Pcsk2
IPI00124742.3	3	4	6	0	4	17	4	3.4	1.5	35.25%	3.1	91.65%	Ppid
IPI00330176.4	7	4	3	3	0	17	3	3.4	2.1	44.61%	1.7	86.60%	Ppox
IPI00132786.1	5	4	3	5	0	17	4	3.4	1.0	25.00%	2.5	94.37%	Prr6
IPI00816974.1	4	2	3	4	4	17	4	3.4	1.0	33.33%	0.6	15.75%	Psmd6
IPI00608044.4	5	3	5	0	4	17	4	3.4	1.2	26.65%	2.6	88.19%	Rgs7bp
IPI00125776.1	4	5	4	0	4	17	4	3.4	0.6	13.32%	2.3	86.60%	Rhot2
IPI00274656.6	4	3	8	2	0	17	3	3.4	2.6	52.92%	4.2	124.90%	Snrpd2
IPI00138089.4	5	4	4	4	0	17	4	3.4	0.6	13.32%	2.3	86.60%	Sorbs3
IPI00762636.2	4	4	4	3	2	17	4	3.4	0.0	0.00%	1.0	33.33%	Spg7
IPI00404595.3	5	4	4	4	0	17	4	3.4	0.6	13.32%	2.3	86.60%	Tm9sf4
IPI00315302.5	5	6	3	3	0	17	3	3.4	1.5	32.73%	1.7	86.60%	Trrap
IPI00187338.2	3	5	4	3	2	17	3	3.4	1.0	25.00%	1.0	33.33%	Ubxd2
IPI00648438.1	6	3	5	2	0	16	3	3.2	1.5	32.73%	2.5	107.85%	2310056P07Rik
IPI00153740.1	4	3	3	3	3	16	3	3.2	0.6	17.32%	0.0	0.00%	Akr1b3
IPI00468696.3	3	0	6	2	5	16	3	3.2	3.0	100.00%	2.1	48.04%	Aplp2
IPI00461277.4	3	4	4	5	0	16	4	3.2	0.6	15.75%	2.6	88.19%	Bcr
IPI00411079.2	5	5	2	4	0	16	4	3.2	1.7	43.30%	2.0	100.00%	Cad
IPI00338458.2	7	0	7	2	0	16	2	3.2	4.0	86.60%	3.6	120.19%	Caml
IPI00467430.2	3	5	4	4	0	16	4	3.2	1.0	25.00%	2.3	86.60%	Capns1
IPI00323114.3	7	4	5	0	0	16	4	3.2	1.5	28.64%	2.9	173.21%	Copa
IPI00421223.3	2	4	4	3	3	16	3	3.2	1.2	34.64%	0.6	17.32%	Cops2
IPI00762033.2	2	7	3	0	4	16	3	3.2	2.6	66.14%	2.1	89.21%	Cplx1
IPI00308706.4	3	2	5	3	3	16	3	3.2	1.5	45.83%	1.2	31.49%	Creld1
IPI00875256.1	3	5	6	2	0	16	3	3.2	1.5	32.73%	3.1	114.56%	Cugbp2
IPI00137424.2	2	4	4	4	2	16	4	3.2	1.2	34.64%	1.2	34.64%	Ddah2
IPI00110760.1	4	5	4	3	0	16	4	3.2	0.6	13.32%	2.1	89.21%	Ddx17

IPI00124890.1	7	0	5	0	4	16	4	3.2	3.6	90.14%	2.6	88.19%	Dock3
IPI00319135.4	4	4	8	0	0	16	4	3.2	2.3	43.30%	4.6	173.21%	Dpp4
IPI00130324.1	3	4	6	3	0	16	3	3.2	1.5	35.25%	3.0	100.00%	Edg1
IPI00124979.2	16	0	0	0	0	16	0	3.2	9.2	173.21%	0.0	#DIV/0!	EG627998
IPI00225023.3	2	6	6	2	0	16	2	3.2	2.3	49.49%	3.1	114.56%	Fdps
IPI00109705.3	6	6	4	0	0	16	4	3.2	1.2	21.65%	2.3	173.21%	Gabra3
IPI00114878.1	3	2	2	5	4	16	3	3.2	0.6	24.74%	1.5	41.66%	Gmfb
IPI00134820.1	4	5	4	3	0	16	4	3.2	0.6	13.32%	2.1	89.21%	Gmppb
IPI00648654.1	5	4	3	4	0	16	4	3.2	1.0	25.00%	2.1	89.21%	Gprc5b
IPI00128319.1	4	4	2	3	3	16	3	3.2	1.2	34.64%	0.6	21.65%	Gpx4
IPI00877279.1	3	7	4	2	0	16	3	3.2	2.1	44.61%	2.0	100.00%	Hnrph1
IPI00128389.3	2	5	5	2	2	16	2	3.2	1.7	43.30%	1.7	57.74%	Htra2
IPI00659932.4	4	3	5	4	0	16	4	3.2	1.0	25.00%	2.6	88.19%	Impdh2
IPI00224219.1	5	0	2	3	6	16	3	3.2	2.5	107.85%	2.1	56.77%	Inpp4a
IPI00464166.2	7	0	0	2	7	16	2	3.2	4.0	173.21%	3.6	120.19%	Insr
IPI00551411.5	4	2	3	7	0	16	3	3.2	1.0	33.33%	3.5	105.36%	Itih5
IPI00461339.1	5	6	5	0	0	16	5	3.2	0.6	10.83%	2.9	173.21%	Jak1
IPI00480558.4	4	0	6	6	0	16	4	3.2	3.1	91.65%	3.5	86.60%	Kcnc3
IPI00649329.3	8	0	4	4	0	16	4	3.2	4.0	100.00%	2.3	86.60%	Krt8
IPI00137848.1	5	3	2	6	0	16	3	3.2	1.5	45.83%	3.1	114.56%	Lcp1
IPI00828952.1	5	0	9	2	0	16	2	3.2	4.5	96.63%	4.7	128.89%	LOC100039924
IPI00421276.1	4	0	4	3	5	16	4	3.2	2.3	86.60%	1.0	25.00%	LOC100048676
IPI00349401.3	5	3	4	2	2	16	3	3.2	1.0	25.00%	1.2	43.30%	Lrpap1
IPI00230365.5	4	4	4	4	0	16	4	3.2	0.0	0.00%	2.3	86.60%	Lrrc47
IPI00114818.1	2	3	3	8	0	16	3	3.2	0.6	21.65%	4.0	110.22%	Ltf
IPI00830749.1	2	2	5	4	3	16	3	3.2	1.7	57.74%	1.0	25.00%	Map2k4
IPI00113043.1	4	6	6	0	0	16	4	3.2	1.2	21.65%	3.5	173.21%	Mars
IPI00869359.1	4	6	2	2	2	16	2	3.2	2.0	50.00%	0.0	0.00%	Naalad2
IPI00135512.1	6	2	2	3	3	16	3	3.2	2.3	69.28%	0.6	21.65%	Nfs1
IPI00322610.5	5	3	5	0	3	16	3	3.2	1.2	26.65%	2.5	94.37%	Nif3l1
IPI00121767.1	6	6	4	0	0	16	4	3.2	1.2	21.65%	2.3	173.21%	Nipsnap3a
IPI00675933.2	3	2	4	4	3	16	3	3.2	1.0	33.33%	0.6	15.75%	Plxnc1
IPI00407413.2	8	4	4	0	0	16	4	3.2	2.3	43.30%	2.3	173.21%	Ppic
IPI00119224.1	2	6	6	2	0	16	2	3.2	2.3	49.49%	3.1	114.56%	Rps14

IPI00131428.1	4	5	4	0	3	16	4	3.2	0.6	13.32%	2.1	89.21%	Sec14l2
IPI00649438.1	3	5	6	2	0	16	3	3.2	1.5	32.73%	3.1	114.56%	Slc7a2
IPI00330679.2	8	4	0	0	4	16	4	3.2	4.0	100.00%	2.3	173.21%	Slc7a5
IPI00395047.1	6	3	4	3	0	16	3	3.2	1.5	35.25%	2.1	89.21%	Stt3a
IPI00110684.1	4	2	6	2	2	16	2	3.2	2.0	50.00%	2.3	69.28%	Stx6
IPI00108883.3	7	2	3	2	2	16	2	3.2	2.6	66.14%	0.6	24.74%	Suox
IPI00125853.1	5	3	4	2	2	16	3	3.2	1.0	25.00%	1.2	43.30%	Tmem1
IPI00128826.1	4	4	5	3	0	16	4	3.2	0.6	13.32%	2.5	94.37%	Top1
IPI00137400.2	2	4	4	4	2	16	4	3.2	1.2	34.64%	1.2	34.64%	Tpd52l2
IPI00122251.1	3	3	5	0	5	16	3	3.2	1.2	31.49%	2.9	86.60%	Trpm3
IPI00798576.2	7	4	0	5	0	16	4	3.2	3.5	95.78%	2.9	173.21%	Ttr
IPI00125778.3	5	4	5	0	2	16	4	3.2	0.6	12.37%	2.5	107.85%	Txndc12
IPI00672213.3	4	0	4	4	4	16	4	3.2	2.3	86.60%	0.0	0.00%	Tyki
IPI00875818.1	4	5	4	0	3	16	4	3.2	0.6	13.32%	2.1	89.21%	Wdfy1
IPI00415908.4	6	0	2	8	0	16	2	3.2	3.1	114.56%	4.2	124.90%	Ykt6
IPI00468236.3	5	0	5	2	3	15	3	3.0	2.9	86.60%	1.5	45.83%	2310022B05Rik
IPI00315504.1	5	4	2	2	2	15	2	3.0	1.5	41.66%	0.0	0.00%	2810405K02Rik
IPI00755315.5	6	6	3	0	0	15	3	3.0	1.7	34.64%	1.7	173.21%	Aco1
IPI00123519.6	7	2	2	2	2	15	2	3.0	2.9	78.73%	0.0	0.00%	Acsl5
IPI00776142.1	2	4	0	5	4	15	4	3.0	2.0	100.00%	2.6	88.19%	Adam11
IPI00223818.2	2	4	3	4	2	15	3	3.0	1.0	33.33%	1.0	33.33%	AI427122
IPI00420480.5	4	2	0	4	5	15	4	3.0	2.0	100.00%	2.6	88.19%	Ankfy1
IPI00125771.3	3	6	0	3	3	15	3	3.0	3.0	100.00%	1.7	86.60%	Anxa4
IPI00172906.2	4	3	2	2	4	15	3	3.0	1.0	33.33%	1.2	43.30%	Arf6
IPI00655041.2	6	2	3	0	4	15	3	3.0	2.1	56.77%	2.1	89.21%	Arsa
IPI00283862.6	3	0	6	3	3	15	3	3.0	3.0	100.00%	1.7	43.30%	Blmh
IPI00116072.7	4	2	3	4	2	15	3	3.0	1.0	33.33%	1.0	33.33%	Cacng2
IPI00170363.1	5	4	2	4	0	15	4	3.0	1.5	41.66%	2.0	100.00%	Cdh11
IPI00108811.1	0	6	0	4	5	15	4	3.0	3.5	173.21%	2.6	88.19%	Cds1
IPI00112719.1	6	0	4	3	2	15	3	3.0	3.1	91.65%	1.0	33.33%	Chchd4
IPI00109603.1	5	5	5	0	0	15	5	3.0	0.0	0.00%	2.9	173.21%	Chid1
IPI00322698.7	2	3	4	3	3	15	3	3.0	1.0	33.33%	0.6	17.32%	Cttn
IPI00127560.1	3	2	3	4	3	15	3	3.0	0.6	21.65%	0.6	17.32%	Cyb5
IPI00125971.1	3	3	7	2	0	15	3	3.0	2.3	53.29%	3.6	120.19%	Degs1

IPI00314204.5	5	4	4	0	2	15	4	3.0	0.6	13.32%	2.0	100.00%	Dhcr7
IPI00119058.1	2	4	5	4	0	15	4	3.0	1.5	41.66%	2.6	88.19%	EG240853
IPI00322150.8	8	0	7	0	0	15	0	3.0	4.4	87.18%	4.0	173.21%	EG268809
IPI00222113.2	5	2	5	3	0	15	3	3.0	1.7	43.30%	2.5	94.37%	Elmo1
IPI00153468.1	5	3	0	5	2	15	3	3.0	2.5	94.37%	2.5	107.85%	Elmod1
IPI00309285.5	3	3	5	0	4	15	3	3.0	1.2	31.49%	2.6	88.19%	Eng
IPI00316469.4	4	4	5	2	0	15	4	3.0	0.6	13.32%	2.5	107.85%	Erlin1
IPI00133066.3	3	3	2	5	2	15	3	3.0	0.6	21.65%	1.7	57.74%	Exoc3
IPI00331524.7	3	2	4	6	0	15	3	3.0	1.0	33.33%	3.1	91.65%	Fabp7
IPI00848909.1	5	3	3	2	2	15	3	3.0	1.2	31.49%	0.6	24.74%	Fmo1
IPI00124479.2	2	5	4	4	0	15	4	3.0	1.5	41.66%	2.3	86.60%	Grik2
IPI00187450.6	7	4	0	4	0	15	4	3.0	3.5	95.78%	2.3	173.21%	Hdac1
IPI00112335.1	5	4	3	3	0	15	3	3.0	1.0	25.00%	1.7	86.60%	Iars
IPI00124389.1	5	2	2	3	3	15	3	3.0	1.7	57.74%	0.6	21.65%	Itfg3
IPI00140061.1	2	7	2	2	2	15	2	3.0	2.9	78.73%	0.0	0.00%	Lars2
IPI00653636.1	6	0	3	4	2	15	3	3.0	3.0	100.00%	1.0	33.33%	Lgi2
IPI00119913.1	3	3	3	3	3	15	3	3.0	0.0	0.00%	0.0	0.00%	Lrrc57
IPI00664030.3	4	6	0	5	0	15	4	3.0	3.1	91.65%	2.9	173.21%	Man2c1
IPI00119320.4	2	6	7	0	0	15	2	3.0	2.6	52.92%	4.0	173.21%	Map2k2
IPI00555004.3	4	5	4	2	0	15	4	3.0	0.6	13.32%	2.0	100.00%	Mfsd2
IPI00126120.1	2	4	5	0	4	15	4	3.0	1.5	41.66%	2.6	88.19%	Nfu1
IPI00880644.1	5	3	5	0	2	15	3	3.0	1.2	26.65%	2.5	107.85%	Nlgn1
IPI00652358.5	3	3	3	4	2	15	3	3.0	0.0	0.00%	1.0	33.33%	Nup188
IPI00227460.1	5	4	4	2	0	15	4	3.0	0.6	13.32%	2.0	100.00%	Phr1
IPI00606944.2	4	4	3	4	0	15	4	3.0	0.6	15.75%	2.1	89.21%	Pisd
IPI00396833.1	3	7	5	0	0	15	3	3.0	2.0	40.00%	2.9	173.21%	Plcxd3
IPI00134746.5	6	6	0	0	3	15	3	3.0	3.5	86.60%	1.7	173.21%	Pltp
IPI00330303.7	3	3	3	6	0	15	3	3.0	0.0	0.00%	3.0	100.00%	Psip1
IPI00624883.2	3	3	0	3	6	15	3	3.0	1.7	86.60%	3.0	100.00%	Psma4
IPI00411164.4	2	3	4	4	2	15	3	3.0	1.0	33.33%	1.2	34.64%	Psmc6
IPI00117416.1	4	3	3	3	2	15	3	3.0	0.6	17.32%	0.6	21.65%	Psmd12
IPI00117771.1	7	3	3	2	0	15	3	3.0	2.3	53.29%	1.5	91.65%	Ptpn9
IPI00310635.3	3	5	2	3	2	15	3	3.0	1.5	45.83%	0.6	24.74%	Rab12
IPI00153813.4	2	3	4	4	2	15	3	3.0	1.0	33.33%	1.2	34.64%	Rab27b

IPI00221577.1	5	2	2	3	3	15	3	3.0	1.7	57.74%	0.6	21.65%	Rab31
IPI00553357.1	5	4	4	2	0	15	4	3.0	0.6	13.32%	2.0	100.00%	Rbm39
IPI00408957.3	0	6	9	0	0	15	0	3.0	4.6	91.65%	5.2	173.21%	Rhd
IPI00459331.2	2	4	6	3	0	15	3	3.0	2.0	50.00%	3.0	100.00%	Scamp3
IPI00124298.2	6	3	4	2	0	15	3	3.0	1.5	35.25%	2.0	100.00%	Scrib
IPI00128699.3	7	0	6	0	2	15	2	3.0	3.8	87.37%	3.1	114.56%	Sec31a
IPI00129323.1	3	4	6	0	2	15	3	3.0	1.5	35.25%	3.1	114.56%	Slc25a15
IPI00875553.1	6	4	0	2	3	15	3	3.0	3.1	91.65%	1.5	91.65%	Sorcs2
IPI00756446.1	0	4	4	7	0	15	4	3.0	2.3	86.60%	3.5	95.78%	Srrm2
IPI00120923.2	4	6	5	0	0	15	4	3.0	1.0	20.00%	2.9	173.21%	Stab1
IPI00114840.1	0	5	2	4	4	15	4	3.0	2.5	107.85%	1.2	34.64%	Stx7
IPI00377731.2	8	0	2	0	5	15	2	3.0	4.2	124.90%	2.5	107.85%	Susd2
IPI00453688.1	3	4	6	2	0	15	3	3.0	1.5	35.25%	3.1	114.56%	Tagln2
IPI00754723.2	3	2	5	3	2	15	3	3.0	1.5	45.83%	1.5	45.83%	Tceb2
IPI00112128.1	3	3	4	0	5	15	3	3.0	0.6	17.32%	2.6	88.19%	Timm10
IPI00312113.1	2	3	3	3	4	15	3	3.0	0.6	21.65%	0.6	17.32%	Traf3
IPI00122740.2	4	3	4	4	0	15	4	3.0	0.6	15.75%	2.3	86.60%	Trpv2
IPI00420172.1	5	3	3	4	0	15	3	3.0	1.2	31.49%	2.1	89.21%	Tspan7
IPI00751703.1	5	2	3	5	0	15	3	3.0	1.5	45.83%	2.5	94.37%	Usp7
IPI00134378.8	5	2	3	4	0	14	3	2.8	1.5	45.83%	2.1	89.21%	2610101N10Rik
IPI00153103.2	6	0	4	4	0	14	4	2.8	3.1	91.65%	2.3	86.60%	4933403F05Rik
IPI00453819.2	5	3	0	3	3	14	3	2.8	2.5	94.37%	1.7	86.60%	Abhd3
IPI00309207.5	4	0	0	5	5	14	4	2.8	2.3	173.21%	2.9	86.60%	Acp6
IPI00469012.3	4	3	3	2	2	14	3	2.8	0.6	17.32%	0.6	24.74%	Agps
IPI00759876.2	2	0	8	4	0	14	2	2.8	4.2	124.90%	4.0	100.00%	AI118078
IPI00307991.1	4	5	0	2	3	14	3	2.8	2.6	88.19%	1.5	91.65%	Alad
IPI00875145.1	3	4	3	4	0	14	3	2.8	0.6	17.32%	2.1	89.21%	Anxa7
IPI00226958.3	0	2	5	7	0	14	2	2.8	2.5	107.85%	3.6	90.14%	Appl1
IPI00170121.1	5	3	3	3	0	14	3	2.8	1.2	31.49%	1.7	86.60%	Arhgap23
IPI00136496.1	3	5	3	3	0	14	3	2.8	1.2	31.49%	1.7	86.60%	Atp6ap2
IPI00672924.1	6	3	2	3	0	14	3	2.8	2.1	56.77%	1.5	91.65%	Blvrb
IPI00808053.2	2	4	3	3	2	14	3	2.8	1.0	33.33%	0.6	21.65%	Ccbl2
IPI00553414.3	6	0	2	4	2	14	2	2.8	3.1	114.56%	1.2	43.30%	Cdc42bpa
IPI00454000.3	6	0	4	0	4	14	4	2.8	3.1	91.65%	2.3	86.60%	Comt

IPI00136655.1	5	0	4	0	5	14	4	2.8	2.6	88.19%	2.6	88.19%	Coq5
IPI00314205.1	0	6	4	2	2	14	2	2.8	3.1	91.65%	1.2	43.30%	Crb2
IPI00319965.3	2	0	7	2	3	14	2	2.8	3.6	120.19%	2.6	66.14%	Crk
IPI00230139.5	3	4	4	0	3	14	3	2.8	0.6	15.75%	2.1	89.21%	Crkl
IPI00876368.1	5	3	2	4	0	14	3	2.8	1.5	45.83%	2.0	100.00%	Cryab
IPI00110659.2	3	0	4	4	3	14	3	2.8	2.1	89.21%	0.6	15.75%	Cspg5
IPI00230566.4	5	0	5	4	0	14	4	2.8	2.9	86.60%	2.6	88.19%	Cul4b
IPI00134484.1	3	4	2	3	2	14	3	2.8	1.0	33.33%	0.6	24.74%	Dctn4
IPI00380739.5	6	4	4	0	0	14	4	2.8	1.2	24.74%	2.3	173.21%	Dnpep
IPI00165799.1	5	2	2	5	0	14	2	2.8	1.7	57.74%	2.5	107.85%	Dock1
IPI00111320.7	0	0	10	0	4	14	0	2.8	5.8	173.21%	5.0	107.85%	Dpy30
IPI00112641.1	3	3	2	6	0	14	3	2.8	0.6	21.65%	3.1	114.56%	Dynlrb1
IPI00270376.6	4	5	3	2	0	14	3	2.8	1.0	25.00%	1.5	91.65%	Emb
IPI00320157.8	7	4	3	0	0	14	3	2.8	2.1	44.61%	1.7	173.21%	ENSMUSG00000074407
IPI00331284.1	5	2	2	5	0	14	2	2.8	1.7	57.74%	2.5	107.85%	Fibp
IPI00119478.1	4	4	0	0	6	14	4	2.8	2.3	86.60%	3.5	173.21%	Galc
IPI00330161.2	6	6	0	2	0	14	2	2.8	3.5	86.60%	1.2	173.21%	Hexa
IPI00322245.3	2	5	4	3	0	14	3	2.8	1.5	41.66%	2.1	89.21%	Hsd11b1
IPI00460720.3	4	4	0	3	3	14	3	2.8	2.3	86.60%	1.7	86.60%	Ilk
IPI00406464.2	2	2	3	5	2	14	2	2.8	0.6	24.74%	1.5	45.83%	Itgb3
IPI00857771.1	3	3	2	3	3	14	3	2.8	0.6	21.65%	0.6	21.65%	Kcnab1
IPI00109420.2	0	6	4	4	0	14	4	2.8	3.1	91.65%	2.3	86.60%	Kcnj3
IPI00648186.4	3	3	3	3	2	14	3	2.8	0.0	0.00%	0.6	21.65%	Lgi3
IPI00154057.3	4	0	5	0	5	14	4	2.8	2.6	88.19%	2.9	86.60%	Macrod1
IPI00133557.1	3	4	3	2	2	14	3	2.8	0.6	17.32%	0.6	24.74%	Nedd4
IPI00331314.6	0	3	4	3	4	14	3	2.8	2.1	89.21%	0.6	15.75%	Nit2
IPI00480307.1	6	0	5	3	0	14	3	2.8	3.2	87.67%	2.5	94.37%	Nup107
IPI00222763.1	3	0	3	5	3	14	3	2.8	1.7	86.60%	1.2	31.49%	Odz2
IPI00126184.7	4	3	4	3	0	14	3	2.8	0.6	15.75%	2.1	89.21%	Osbp
IPI00114232.1	2	3	4	5	0	14	3	2.8	1.0	33.33%	2.6	88.19%	Palm2-akap2
IPI00309262.3	2	6	4	2	0	14	2	2.8	2.0	50.00%	2.0	100.00%	Pelp1
IPI00788331.1	5	2	0	4	3	14	3	2.8	2.5	107.85%	2.1	89.21%	Pld3
IPI00129685.2	4	4	6	0	0	14	4	2.8	1.2	24.74%	3.5	173.21%	Pm20d1
IPI00111902.1	3	4	4	3	0	14	3	2.8	0.6	15.75%	2.1	89.21%	Ppme1

IPI00453823.3	5	5	4	0	0	14	4	2.8	0.6	12.37%	2.3	173.21%	Preb
IPI00624896.4	5	0	3	3	3	14	3	2.8	2.5	94.37%	0.0	0.00%	Prkaa1
IPI00125602.1	4	3	3	4	0	14	3	2.8	0.6	17.32%	2.1	89.21%	Prpsap1
IPI00137087.5	3	5	4	0	2	14	3	2.8	1.0	25.00%	2.0	100.00%	Psmd8
IPI00720103.1	0	5	0	9	0	14	0	2.8	2.9	173.21%	5.2	173.21%	Pygl
IPI00112822.2	2	5	7	0	0	14	2	2.8	2.5	53.93%	4.0	173.21%	Rars
IPI00137668.1	2	3	5	4	0	14	3	2.8	1.5	45.83%	2.6	88.19%	Slc4a2
IPI00223055.2	2	3	2	5	2	14	2	2.8	0.6	24.74%	1.7	57.74%	Smc1a
IPI00123817.1	3	2	4	2	3	14	3	2.8	1.0	33.33%	1.0	33.33%	Stim1
IPI00480432.2	5	0	5	2	2	14	2	2.8	2.9	86.60%	1.7	57.74%	Syt12
IPI00761607.1	3	2	4	5	0	14	3	2.8	1.0	33.33%	2.6	88.19%	Tanc2
IPI00816904.2	6	3	2	3	0	14	3	2.8	2.1	56.77%	1.5	91.65%	Tppp3
IPI00170221.2	7	3	0	3	0	13	3	2.6	3.5	105.36%	1.7	173.21%	1810049H19Rik
IPI00828271.3	6	2	2	3	0	13	2	2.6	2.3	69.28%	1.5	91.65%	4933425L03Rik
IPI00470963.3	5	0	0	2	6	13	2	2.6	2.9	173.21%	3.1	114.56%	Abhd10
IPI00118892.6	5	2	3	3	0	13	3	2.6	1.5	45.83%	1.7	86.60%	Acot11
IPI00111286.1	3	5	2	0	3	13	3	2.6	1.5	45.83%	1.5	91.65%	Acsf3
IPI00330186.3	2	0	2	5	4	13	2	2.6	1.2	86.60%	1.5	41.66%	Aldh9a1
IPI00323683.2	8	0	3	2	0	13	2	2.6	4.0	110.22%	1.5	91.65%	Anxa11
IPI00606508.1	6	2	3	2	0	13	2	2.6	2.1	56.77%	1.5	91.65%	Arfgef2
IPI00387192.4	3	0	2	3	5	13	3	2.6	1.5	91.65%	1.5	45.83%	Asph
IPI00129908.1	5	3	3	0	2	13	3	2.6	1.2	31.49%	1.5	91.65%	Atp2c1
IPI00379876.2	0	7	6	0	0	13	0	2.6	3.8	87.37%	3.5	173.21%	Atp6v0a4
IPI00132958.1	3	3	2	5	0	13	3	2.6	0.6	21.65%	2.5	107.85%	Bcas1
IPI00110598.1	5	2	3	0	3	13	3	2.6	1.5	45.83%	1.7	86.60%	Begain
IPI00468079.3	2	6	3	0	2	13	2	2.6	2.1	56.77%	1.5	91.65%	Cbr4
IPI00454030.3	3	3	0	3	4	13	3	2.6	1.7	86.60%	2.1	89.21%	Cdh5
IPI00309844.4	4	0	4	2	3	13	3	2.6	2.3	86.60%	1.0	33.33%	Clpb
IPI00808443.2	7	0	4	0	2	13	2	2.6	3.5	95.78%	2.0	100.00%	Clstn1
IPI00755183.1	3	0	7	3	0	13	3	2.6	3.5	105.36%	3.5	105.36%	Cnpy2
IPI00224561.1	8	2	3	0	0	13	2	2.6	3.2	74.18%	1.7	173.21%	Ctnnal1
IPI00321744.3	3	0	4	4	2	13	3	2.6	2.1	89.21%	1.2	34.64%	D10Bwg1379e
IPI00652811.1	3	4	4	0	2	13	3	2.6	0.6	15.75%	2.0	100.00%	D15Wsu169e
IPI00404338.2	2	3	6	2	0	13	2	2.6	2.1	56.77%	3.1	114.56%	Dars

IPI00464299.6	3	3	2	3	2	13	3	2.6	0.6	21.65%	0.6	24.74%	Dbc1
IPI00125687.1	5	0	2	2	4	13	2	2.6	2.5	107.85%	1.2	43.30%	Dguok
IPI00127450.1	2	3	0	4	4	13	3	2.6	1.5	91.65%	2.3	86.60%	Diras2
IPI00131309.1	3	0	3	5	2	13	3	2.6	1.7	86.60%	1.5	45.83%	Drg2
IPI00123295.2	3	3	3	0	4	13	3	2.6	0.0	0.00%	2.1	89.21%	Dync1i2
IPI00312767.1	3	5	0	5	0	13	3	2.6	2.5	94.37%	2.9	173.21%	EG243872
IPI00225192.1	3	6	2	2	0	13	2	2.6	2.1	56.77%	1.2	86.60%	Enpp2
IPI00323479.2	7	0	3	3	0	13	3	2.6	3.5	105.36%	1.7	86.60%	ENSMUSG00000060566
IPI00177205.1	13	0	0	0	0	13	0	2.6	7.5	173.21%	0.0	#DIV/0!	ENSMUSG00000072460
IPI00109335.1	0	4	0	9	0	13	0	2.6	2.3	173.21%	5.2	173.21%	Ephb4
IPI00129299.3	3	0	3	4	3	13	3	2.6	1.7	86.60%	0.6	17.32%	Erc1
IPI00403814.4	6	3	2	2	0	13	2	2.6	2.1	56.77%	1.2	86.60%	F3
IPI00284444.5	2	3	3	3	2	13	3	2.6	0.6	21.65%	0.6	21.65%	Fmn2
IPI00226726.1	3	0	5	5	0	13	3	2.6	2.5	94.37%	2.9	86.60%	Fmo2
IPI00877180.1	3	2	2	3	3	13	3	2.6	0.6	24.74%	0.6	21.65%	Grit
IPI00330860.2	2	2	2	3	4	13	2	2.6	0.0	0.00%	1.0	33.33%	Lancl1
IPI00623570.3	5	2	0	6	0	13	2	2.6	2.5	107.85%	3.5	173.21%	LOC100043391
IPI00226275.2	3	5	0	5	0	13	3	2.6	2.5	94.37%	2.9	173.21%	LOC674419
IPI00653345.2	3	5	0	5	0	13	3	2.6	2.5	94.37%	2.9	173.21%	LOC677073
IPI00133270.1	5	0	3	2	3	13	3	2.6	2.5	94.37%	0.6	21.65%	Map4k4
IPI00121338.1	4	0	4	3	2	13	3	2.6	2.3	86.60%	1.0	33.33%	Mapk8ip3
IPI00461469.3	2	3	4	0	4	13	3	2.6	1.0	33.33%	2.3	86.60%	Mlf1
IPI00626860.1	2	3	4	4	0	13	3	2.6	1.0	33.33%	2.3	86.60%	Mta1
IPI00119283.1	2	4	4	3	0	13	3	2.6	1.2	34.64%	2.1	89.21%	Ncan
IPI00869450.1	4	2	3	4	0	13	3	2.6	1.0	33.33%	2.1	89.21%	Ncl
IPI00110806.3	0	4	4	5	0	13	4	2.6	2.3	86.60%	2.6	88.19%	Npc1
IPI00222749.1	6	3	4	0	0	13	3	2.6	1.5	35.25%	2.3	173.21%	Pam
IPI00655040.1	5	2	2	4	0	13	2	2.6	1.7	57.74%	2.0	100.00%	Pon2
IPI00469735.4	5	2	2	4	0	13	2	2.6	1.7	57.74%	2.0	100.00%	Prep
IPI00378120.2	6	0	3	4	0	13	3	2.6	3.0	100.00%	2.1	89.21%	Prpf19
IPI00132278.1	2	3	3	2	3	13	3	2.6	0.6	21.65%	0.6	21.65%	Ptpn23
IPI00129015.1	5	0	0	5	3	13	3	2.6	2.9	173.21%	2.5	94.37%	Rasgrf2
IPI00109501.1	5	2	3	0	3	13	3	2.6	1.5	45.83%	1.7	86.60%	Rnh1
IPI00113362.2	0	5	2	3	3	13	3	2.6	2.5	107.85%	0.6	21.65%	Sdk2

IPI00109212.3	5	0	4	2	2	13	2	2.6	2.6	88.19%	1.2	43.30%	Selm
IPI00469426.6	2	2	2	2	5	13	2	2.6	0.0	0.00%	1.7	57.74%	Serpina1a
IPI00138274.1	3	2	5	3	0	13	3	2.6	1.5	45.83%	2.5	94.37%	Sfrs1
IPI00128915.4	5	0	5	3	0	13	3	2.6	2.9	86.60%	2.5	94.37%	Sfrs3
IPI00653847.1	0	5	5	3	0	13	3	2.6	2.9	86.60%	2.5	94.37%	Sfrs3
IPI00408171.4	2	4	2	3	2	13	2	2.6	1.2	43.30%	0.6	24.74%	Sgpl1
IPI00116729.2	5	4	0	2	2	13	2	2.6	2.6	88.19%	1.2	86.60%	Slc16a2
IPI00121736.1	0	3	5	5	0	13	3	2.6	2.5	94.37%	2.9	86.60%	Slc5a6
IPI00128818.2	4	4	3	2	0	13	3	2.6	0.6	15.75%	1.5	91.65%	Slc6a5
IPI00224729.1	4	2	4	3	0	13	3	2.6	1.2	34.64%	2.1	89.21%	Smarcc2
IPI00875363.1	3	5	2	3	0	13	3	2.6	1.5	45.83%	1.5	91.65%	Smu1
IPI00111258.3	3	4	3	3	0	13	3	2.6	0.6	17.32%	1.7	86.60%	Snrpn
IPI00124291.1	3	0	3	4	3	13	3	2.6	1.7	86.60%	0.6	17.32%	Spock2
IPI00278348.1	4	6	3	0	0	13	3	2.6	1.5	35.25%	1.7	173.21%	Tbc1d10b
IPI00110262.4	2	3	2	4	2	13	2	2.6	0.6	24.74%	1.2	43.30%	Tgm2
IPI00407951.1	5	3	3	2	0	13	3	2.6	1.2	31.49%	1.5	91.65%	Tmem16k
IPI00331555.2	2	2	6	3	0	13	2	2.6	2.3	69.28%	3.0	100.00%	Tmod1
IPI00135659.1	2	0	6	0	5	13	2	2.6	3.1	114.56%	3.2	87.67%	Tomm40l
IPI00626501.3	2	6	0	3	2	13	2	2.6	3.1	114.56%	1.5	91.65%	Tpt1
IPI00115599.6	4	2	4	3	0	13	3	2.6	1.2	34.64%	2.1	89.21%	Twf1
IPI00875177.1	8	3	0	0	2	13	2	2.6	4.0	110.22%	1.2	173.21%	Vps16
IPI00135311.2	6	2	2	2	0	12	2	2.4	2.3	69.28%	1.2	86.60%	1810047C23Rik
IPI00322302.1	6	0	6	0	0	12	0	2.4	3.5	86.60%	3.5	173.21%	1810074P20Rik
IPI00230113.5	2	2	5	0	3	12	2	2.4	1.7	57.74%	2.5	94.37%	4930402E16Rik
IPI00137658.3	3	3	3	3	0	12	3	2.4	0.0	0.00%	1.7	86.60%	4933407N01Rik
IPI00330838.6	3	4	2	0	3	12	3	2.4	1.0	33.33%	1.5	91.65%	Abca2
IPI00133719.1	0	4	4	4	0	12	4	2.4	2.3	86.60%	2.3	86.60%	Acp2
IPI00117731.1	2	3	4	3	0	12	3	2.4	1.0	33.33%	2.1	89.21%	Ak5
IPI00225049.1	3	4	2	3	0	12	3	2.4	1.0	33.33%	1.5	91.65%	Ankrd25
IPI00323406.1	2	7	3	0	0	12	2	2.4	2.6	66.14%	1.7	173.21%	Aup1
IPI00124372.3	3	3	4	0	2	12	3	2.4	0.6	17.32%	2.0	100.00%	Bai3
IPI00123624.8	5	3	0	0	4	12	3	2.4	2.5	94.37%	2.3	173.21%	Ccdc90b
IPI00225288.3	4	0	3	5	0	12	3	2.4	2.1	89.21%	2.5	94.37%	Cdc5l
IPI00875283.1	4	5	0	3	0	12	3	2.4	2.6	88.19%	1.7	173.21%	Chd4

IPI00124047.1	3	4	2	0	3	12	3	2.4	1.0	33.33%	1.5	91.65%	Clcn3
IPI00881051.1	5	2	2	3	0	12	2	2.4	1.7	57.74%	1.5	91.65%	Clmn
IPI00849185.1	0	2	2	8	0	12	2	2.4	1.2	86.60%	4.2	124.90%	Cops6
IPI00134353.3	5	3	2	0	2	12	2	2.4	1.5	45.83%	1.2	86.60%	Coro1b
IPI00465946.1	3	5	4	0	0	12	3	2.4	1.0	25.00%	2.3	173.21%	Cox4nb
IPI00515319.2	3	0	7	2	0	12	2	2.4	3.5	105.36%	3.6	120.19%	Dip2a
IPI00877240.1	3	3	4	2	0	12	3	2.4	0.6	17.32%	2.0	100.00%	Dnajb11
IPI00309183.3	4	2	4	0	2	12	2	2.4	1.2	34.64%	2.0	100.00%	Dock7
IPI00109389.1	4	4	4	0	0	12	4	2.4	0.0	0.00%	2.3	173.21%	Ece1
IPI00278942.4	0	12	0	0	0	12	0	2.4	6.9	173.21%	0.0	#DIV/0!	EG432987
IPI00454081.1	4	0	4	4	0	12	4	2.4	2.3	86.60%	2.3	86.60%	EG668144
IPI00649115.1	0	0	7	5	0	12	0	2.4	4.0	173.21%	3.6	90.14%	ENSMUSG00000027694
IPI00387427.3	5	0	2	2	3	12	2	2.4	2.5	107.85%	0.6	24.74%	Fads1
IPI00761526.3	3	4	3	0	2	12	3	2.4	0.6	17.32%	1.5	91.65%	Fcho2
IPI00459742.2	0	4	0	6	2	12	2	2.4	2.3	173.21%	3.1	114.56%	G6pdx
IPI00133562.1	4	0	5	0	3	12	3	2.4	2.6	88.19%	2.5	94.37%	Impa1
IPI00623897.3	4	3	3	0	2	12	3	2.4	0.6	17.32%	1.5	91.65%	Isoc1
IPI00132218.2	2	0	5	3	2	12	2	2.4	2.5	107.85%	1.5	45.83%	Kif1a
IPI00753928.1	4	0	4	0	4	12	4	2.4	2.3	86.60%	2.3	86.60%	Kif5a
IPI00170297.3	0	4	5	3	0	12	3	2.4	2.6	88.19%	2.5	94.37%	Krt13
IPI00170084.1	3	3	2	4	0	12	3	2.4	0.6	21.65%	2.0	100.00%	Mpp7
IPI00331614.7	3	4	2	0	3	12	3	2.4	1.0	33.33%	1.5	91.65%	Mrrf
IPI00108098.1	0	6	2	4	0	12	2	2.4	3.1	114.56%	2.0	100.00%	Novel
IPI00331342.6	2	2	2	2	4	12	2	2.4	0.0	0.00%	1.2	43.30%	Pde1a
IPI00719884.1	0	6	4	0	2	12	2	2.4	3.1	91.65%	2.0	100.00%	Phactr1
IPI00469788.1	6	0	0	3	3	12	3	2.4	3.5	173.21%	1.7	86.60%	Ppa1
IPI00331094.3	0	3	6	3	0	12	3	2.4	3.0	100.00%	3.0	100.00%	Ppp1r12a
IPI00467495.4	5	0	0	4	3	12	3	2.4	2.9	173.21%	2.1	89.21%	Prps2
IPI00605093.2	4	6	0	2	0	12	2	2.4	3.1	91.65%	1.2	173.21%	Ptges3
IPI00311064.2	5	2	5	0	0	12	2	2.4	1.7	43.30%	2.9	173.21%	Ptk2
IPI00761693.4	4	2	3	0	3	12	3	2.4	1.0	33.33%	1.7	86.60%	Ptprj
IPI00128608.2	3	0	2	2	5	12	2	2.4	1.5	91.65%	1.7	57.74%	Rab4b
IPI00120943.3	2	4	4	0	2	12	2	2.4	1.2	34.64%	2.0	100.00%	Rap1gap
IPI00113243.1	4	8	0	0	0	12	0	2.4	4.0	100.00%	0.0	#DIV/0!	Rps10

IPI00653931.1	0	2	4	4	2	12	2	2.4	2.0	100.00%	1.2	34.64%	Rps19
IPI00347255.5	2	2	3	3	2	12	2	2.4	0.6	24.74%	0.6	21.65%	Sf3b4
IPI00130444.1	0	8	4	0	0	12	0	2.4	4.0	100.00%	2.3	173.21%	Slc25a42
IPI00464293.2	4	5	0	3	0	12	3	2.4	2.6	88.19%	1.7	173.21%	Slc6a20
IPI00453771.2	3	4	0	0	5	12	3	2.4	2.1	89.21%	2.9	173.21%	Slc9a6
IPI00121430.2	3	3	2	2	2	12	2	2.4	0.6	21.65%	0.0	0.00%	Spr
IPI00556688.1	2	2	3	5	0	12	2	2.4	0.6	24.74%	2.5	94.37%	Thop1
IPI00135277.1	4	4	2	2	0	12	2	2.4	1.2	34.64%	1.2	86.60%	Tmem10
IPI00228830.3	6	0	6	0	0	12	0	2.4	3.5	86.60%	3.5	173.21%	Tmem111
IPI00113731.2	2	2	3	2	3	12	2	2.4	0.6	24.74%	0.6	21.65%	Tmod3
IPI00453692.4	0	0	7	5	0	12	0	2.4	4.0	173.21%	3.6	90.14%	Ube2v1
IPI00387491.1	2	3	2	2	3	12	2	2.4	0.6	24.74%	0.6	24.74%	Uqcc
IPI00228236.6	4	0	6	2	0	12	2	2.4	3.1	91.65%	3.1	114.56%	Usp6nl
IPI00874398.1	0	7	5	0	0	12	0	2.4	3.6	90.14%	2.9	173.21%	Vps25
IPI00110224.1	2	3	4	3	0	12	3	2.4	1.0	33.33%	2.1	89.21%	Vti1b
IPI00135975.1	4	5	0	3	0	12	3	2.4	2.6	88.19%	1.7	173.21%	Xtrp3s1
IPI00464312.4	4	5	2	0	0	11	2	2.2	1.5	41.66%	1.2	173.21%	1700012G19Rik
IPI00387333.4	0	4	0	0	7	11	0	2.2	2.3	173.21%	4.0	173.21%	2010309E21Rik
IPI00465761.5	2	3	4	2	0	11	2	2.2	1.0	33.33%	2.0	100.00%	2410014A08Rik
IPI00396685.1	6	3	2	0	0	11	2	2.2	2.1	56.77%	1.2	173.21%	Acsl4
IPI00457976.2	0	11	0	0	0	11	0	2.2	6.4	173.21%	0.0	#DIV/0!	Actn3
IPI00153448.3	0	4	7	0	0	11	0	2.2	3.5	95.78%	4.0	173.21%	Adcy8
IPI00265701.2	4	0	0	3	4	11	3	2.2	2.3	173.21%	2.1	89.21%	Ahsa1
IPI00133612.1	2	2	5	2	0	11	2	2.2	1.7	57.74%	2.5	107.85%	Anxa3
IPI00129096.1	4	7	0	0	0	11	0	2.2	3.5	95.78%	0.0	#DIV/0!	Arl1
IPI00229600.2	0	0	4	5	2	11	2	2.2	2.3	173.21%	1.5	41.66%	Arl2
IPI00132349.3	3	4	4	0	0	11	3	2.2	0.6	15.75%	2.3	173.21%	Arsb
IPI00133531.1	5	0	0	2	4	11	2	2.2	2.9	173.21%	2.0	100.00%	Cacybp
IPI00463909.3	2	0	4	5	0	11	2	2.2	2.0	100.00%	2.6	88.19%	Car14
IPI00121390.1	5	2	0	0	4	11	2	2.2	2.5	107.85%	2.3	173.21%	Ccdc132
IPI00474508.1	3	2	0	3	3	11	3	2.2	1.5	91.65%	1.7	86.60%	Ccdc136
IPI00420789.1	2	4	0	2	3	11	2	2.2	2.0	100.00%	1.5	91.65%	Cd93
IPI00468859.3	6	0	2	0	3	11	2	2.2	3.1	114.56%	1.5	91.65%	Copb1
IPI00108960.3	4	0	0	4	3	11	3	2.2	2.3	173.21%	2.1	89.21%	Cops5

IPI00469333.1	2	4	2	3	0	11	2	2.2	1.2	43.30%	1.5	91.65%	Cxadr
IPI00462949.4	4	5	0	0	2	11	2	2.2	2.6	88.19%	1.2	173.21%	Daglb
IPI00881344.1	5	2	0	2	2	11	2	2.2	2.5	107.85%	1.2	86.60%	Ddef1
IPI00622160.3	2	3	0	3	3	11	3	2.2	1.5	91.65%	1.7	86.60%	Dnajb4
IPI00399943.3	4	4	3	0	0	11	3	2.2	0.6	15.75%	1.7	173.21%	Eef1d
IPI00762291.2	0	3	4	2	2	11	2	2.2	2.1	89.21%	1.2	43.30%	Elmo2
IPI00312148.3	0	11	0	0	0	11	0	2.2	6.4	173.21%	0.0	#DIV/0!	ENSMUSG00000052469
IPI00137243.1	7	0	0	4	0	11	0	2.2	4.0	173.21%	2.3	173.21%	ENSMUSG00000061062
IPI00850281.1	4	3	0	0	4	11	3	2.2	2.1	89.21%	2.3	173.21%	Ero1l
IPI00463367.2	4	0	2	0	5	11	2	2.2	2.0	100.00%	2.5	107.85%	Ethe1
IPI00345373.4	4	0	4	3	0	11	3	2.2	2.3	86.60%	2.1	89.21%	Fmnl2
IPI00553419.3	4	5	2	0	0	11	2	2.2	1.5	41.66%	1.2	173.21%	Fvt1
IPI00117896.3	3	0	4	4	0	11	3	2.2	2.1	89.21%	2.3	86.60%	Gc
IPI00113655.1	6	5	0	0	0	11	0	2.2	3.2	87.67%	0.0	#DIV/0!	Gfm1
IPI00116432.1	4	0	3	4	0	11	3	2.2	2.1	89.21%	2.1	89.21%	Gjb6
IPI00406596.4	2	4	3	2	0	11	2	2.2	1.0	33.33%	1.5	91.65%	Glrx3
IPI00117424.1	2	2	4	3	0	11	2	2.2	1.2	43.30%	2.1	89.21%	Gmps
IPI00556850.1	7	0	0	4	0	11	0	2.2	4.0	173.21%	2.3	173.21%	Gna12
IPI00380195.1	2	2	5	0	2	11	2	2.2	1.7	57.74%	2.5	107.85%	Grpel1
IPI00225123.3	2	4	2	3	0	11	2	2.2	1.2	43.30%	1.5	91.65%	Herc2
IPI00845605.1	3	3	2	3	0	11	3	2.2	0.6	21.65%	1.5	91.65%	Hnrnpc
IPI00421140.2	6	0	0	3	2	11	2	2.2	3.5	173.21%	1.5	91.65%	Kbtbd11
IPI00469123.1	3	2	3	3	0	11	3	2.2	0.6	21.65%	1.7	86.60%	Lars
IPI00110426.1	2	2	3	4	0	11	2	2.2	0.6	24.74%	2.1	89.21%	Lbr
IPI00228967.4	2	5	0	4	0	11	2	2.2	2.5	107.85%	2.3	173.21%	Lipe
IPI00133776.1	3	2	0	3	3	11	3	2.2	1.5	91.65%	1.7	86.60%	LOC100047450
IPI00132184.1	0	6	5	0	0	11	0	2.2	3.2	87.67%	2.9	173.21%	Mapbpip
IPI00169998.2	0	5	4	0	2	11	2	2.2	2.6	88.19%	2.0	100.00%	Mrps30
IPI00117087.1	5	0	4	2	0	11	2	2.2	2.6	88.19%	2.0	100.00%	OTTMUSG00000018617
IPI00126172.1	5	2	0	4	0	11	2	2.2	2.5	107.85%	2.3	173.21%	Plod3
IPI00312018.6	4	0	3	2	2	11	2	2.2	2.1	89.21%	0.6	24.74%	Prkar1b
IPI00230368.1	2	2	3	2	2	11	2	2.2	0.6	24.74%	0.6	24.74%	Psmb5
IPI00349032.2	3	3	3	2	0	11	3	2.2	0.0	0.00%	1.5	91.65%	Ptgfrn
IPI00454035.2	4	0	2	2	3	11	2	2.2	2.0	100.00%	0.6	24.74%	Ptk2b

IPI00137336.1	4	0	3	4	0	11	3	2.2	2.1	89.21%	2.1	89.21%	Rab11fip5
IPI00875492.1	4	0	4	0	3	11	3	2.2	2.3	86.60%	2.1	89.21%	Rab4a
IPI00410796.3	2	2	4	3	0	11	2	2.2	1.2	43.30%	2.1	89.21%	Rmnd1
IPI00853911.1	0	5	3	3	0	11	3	2.2	2.5	94.37%	1.7	86.60%	Rpl23
IPI00317902.3	3	4	2	2	0	11	2	2.2	1.0	33.33%	1.2	86.60%	Rpl30
IPI00121254.1	3	0	4	4	0	11	3	2.2	2.1	89.21%	2.3	86.60%	Rpl35a
IPI00119094.1	0	4	5	2	0	11	2	2.2	2.6	88.19%	2.5	107.85%	Rpl9
IPI00625262.4	11	0	0	0	0	11	0	2.2	6.4	173.21%	0.0	#DIV/0!	Rps2
IPI00380795.4	2	3	4	2	0	11	2	2.2	1.0	33.33%	2.0	100.00%	Rps20
IPI00134506.1	3	3	0	3	2	11	3	2.2	1.7	86.60%	1.5	91.65%	Sar1a
IPI00753595.1	5	0	0	2	4	11	2	2.2	2.9	173.21%	2.0	100.00%	Sec61a1
IPI00225715.7	4	0	4	3	0	11	3	2.2	2.3	86.60%	2.1	89.21%	Sep15
IPI00660262.4	4	0	3	4	0	11	3	2.2	2.1	89.21%	2.1	89.21%	Sf3b2
IPI00877242.1	4	2	2	0	3	11	2	2.2	1.2	43.30%	1.5	91.65%	Slc12a7
IPI00222935.3	0	6	3	2	0	11	2	2.2	3.0	100.00%	1.5	91.65%	Slc22a8
IPI00387261.3	7	0	4	0	0	11	0	2.2	3.5	95.78%	2.3	173.21%	Smc3
IPI00624988.4	3	0	5	3	0	11	3	2.2	2.5	94.37%	2.5	94.37%	Snrpd3
IPI00469184.1	3	3	3	2	0	11	3	2.2	0.0	0.00%	1.5	91.65%	St13
IPI00409035.5	3	2	2	4	0	11	2	2.2	0.6	24.74%	2.0	100.00%	Stub1
IPI00622815.2	0	0	6	3	2	11	2	2.2	3.5	173.21%	2.1	56.77%	Syt3
IPI00620180.3	2	4	5	0	0	11	2	2.2	1.5	41.66%	2.9	173.21%	Tars
IPI00154012.1	0	11	0	0	0	11	0	2.2	6.4	173.21%	0.0	#DIV/0!	Tcp10c
IPI00228106.3	0	4	5	0	2	11	2	2.2	2.6	88.19%	2.5	107.85%	Them4
IPI00663802.1	0	2	3	3	3	11	3	2.2	1.5	91.65%	0.0	0.00%	Thsd7a
IPI00131894.1	4	4	3	0	0	11	3	2.2	0.6	15.75%	1.7	173.21%	Tmem35
IPI00665513.3	2	7	0	0	2	11	2	2.2	3.6	120.19%	1.2	173.21%	Tmem48
IPI00755697.2	3	3	3	2	0	11	3	2.2	0.0	0.00%	1.5	91.65%	Tpd52
IPI00154081.1	3	2	6	0	0	11	2	2.2	2.1	56.77%	3.5	173.21%	Tspan14
IPI00122529.1	5	2	2	2	0	11	2	2.2	1.7	57.74%	1.2	86.60%	Unc5b
IPI00762525.2	5	4	2	0	0	11	2	2.2	1.5	41.66%	1.2	173.21%	Vcam1
IPI00222462.4	3	3	2	3	0	11	3	2.2	0.6	21.65%	1.5	91.65%	Vps33a
IPI00462445.2	2	3	3	3	0	11	3	2.2	0.6	21.65%	1.7	86.60%	Vps53
IPI00675236.1	2	0	3	3	3	11	3	2.2	1.5	91.65%	0.0	0.00%	Xpnpep1
IPI00170027.1	3	3	0	0	4	10	3	2.0	1.7	86.60%	2.3	173.21%	0610038F07Rik

IPI00321477.1	3	0	4	3	0	10	3	2.0	2.1	89.21%	2.1	89.21%	2310008M10Rik
IPI00674493.2	6	0	4	0	0	10	0	2.0	3.1	91.65%	2.3	173.21%	2600009E05Rik
IPI00222135.3	3	0	3	2	2	10	2	2.0	1.7	86.60%	0.6	24.74%	2610110G12Rik
IPI00133122.3	3	3	2	0	2	10	2	2.0	0.6	21.65%	1.2	86.60%	5730446C15Rik
IPI00830849.1	5	3	0	2	0	10	2	2.0	2.5	94.37%	1.2	173.21%	8430419L09Rik
IPI00109253.1	2	4	4	0	0	10	2	2.0	1.2	34.64%	2.3	173.21%	Abca3
IPI00453776.1	0	5	3	2	0	10	2	2.0	2.5	94.37%	1.5	91.65%	Adck4
IPI00404653.4	3	0	3	4	0	10	3	2.0	1.7	86.60%	2.1	89.21%	Adcy3
IPI00113052.1	3	0	2	5	0	10	2	2.0	1.5	91.65%	2.5	107.85%	Adh5
IPI00463126.1	2	0	3	5	0	10	2	2.0	1.5	91.65%	2.5	94.37%	AI314180
IPI00123540.1	3	0	2	5	0	10	2	2.0	1.5	91.65%	2.5	107.85%	Anxa1
IPI00127237.1	0	0	0	5	5	10	0	2.0	0.0	#DIV/0!	2.9	86.60%	Atp5g1
IPI00875944.1	0	0	0	5	5	10	0	2.0	0.0	#DIV/0!	2.9	86.60%	Atp5g2
IPI00278498.10	3	4	0	3	0	10	3	2.0	2.1	89.21%	1.7	173.21%	B230339M05Rik
IPI00649969.1	2	4	2	2	0	10	2	2.0	1.2	43.30%	1.2	86.60%	BC033915
IPI00620325.2	4	2	0	2	2	10	2	2.0	2.0	100.00%	1.2	86.60%	Cab39
IPI00275149.4	6	0	2	2	0	10	2	2.0	3.1	114.56%	1.2	86.60%	Cacna1b
IPI00187396.2	4	3	0	3	0	10	3	2.0	2.1	89.21%	1.7	173.21%	Cacnb2
IPI00828535.1	2	2	4	0	2	10	2	2.0	1.2	43.30%	2.0	100.00%	Cbr3
IPI00169979.2	2	4	2	2	0	10	2	2.0	1.2	43.30%	1.2	86.60%	Cit
IPI00227585.6	3	0	4	3	0	10	3	2.0	2.1	89.21%	2.1	89.21%	Clint1
IPI00113386.1	3	2	3	0	2	10	2	2.0	0.6	21.65%	1.5	91.65%	Cnpy4
IPI00377299.1	0	5	3	2	0	10	2	2.0	2.5	94.37%	1.5	91.65%	Cntn3
IPI00869424.2	0	4	2	2	2	10	2	2.0	2.0	100.00%	0.0	0.00%	Cox15
IPI00756257.1	0	4	6	0	0	10	0	2.0	3.1	91.65%	3.5	173.21%	Csnk1d
IPI00377496.5	0	7	3	0	0	10	0	2.0	3.5	105.36%	1.7	173.21%	D6Wsu176e
IPI00346911.5	4	2	4	0	0	10	2	2.0	1.2	34.64%	2.3	173.21%	Daam2
IPI00817029.1	2	4	4	0	0	10	2	2.0	1.2	34.64%	2.3	173.21%	Derl1
IPI00222228.5	2	4	0	4	0	10	2	2.0	2.0	100.00%	2.3	173.21%	Dhx15
IPI00229528.5	4	0	2	4	0	10	2	2.0	2.0	100.00%	2.0	100.00%	Dmn
IPI00137731.5	0	0	10	0	0	10	0	2.0	5.8	173.21%	5.8	173.21%	EG666974
IPI00127228.3	4	0	4	2	0	10	2	2.0	2.3	86.60%	2.0	100.00%	Eif3c
IPI00309437.6	0	6	0	4	0	10	0	2.0	3.5	173.21%	2.3	173.21%	Eif5
IPI00225732.4	0	4	3	0	3	10	3	2.0	2.1	89.21%	1.7	86.60%	Enah

IPI00469307.2	4	0	3	3	0	10	3	2.0	2.1	89.21%	1.7	86.60%	ENSMUSG00000033184
IPI00130455.1	2	3	0	3	2	10	2	2.0	1.5	91.65%	1.5	91.65%	Epb4.9
IPI00317340.1	4	0	0	3	3	10	3	2.0	2.3	173.21%	1.7	86.60%	Fbxl16
IPI00830208.1	3	3	2	0	2	10	2	2.0	0.6	21.65%	1.2	86.60%	Garnl1
IPI00607924.1	4	0	4	2	0	10	2	2.0	2.3	86.60%	2.0	100.00%	Gba2
IPI00420231.4	0	3	3	2	2	10	2	2.0	1.7	86.60%	0.6	24.74%	Gltp
IPI00123125.4	0	3	2	0	5	10	2	2.0	1.5	91.65%	2.5	107.85%	Gm1568
IPI00224351.1	3	3	4	0	0	10	3	2.0	0.6	17.32%	2.3	173.21%	Gpld1
IPI00475058.1	2	2	2	0	4	10	2	2.0	0.0	0.00%	2.0	100.00%	Grid1
IPI00133174.3	5	0	0	5	0	10	0	2.0	2.9	173.21%	2.9	173.21%	Gsk3b
IPI00136213.5	10	0	0	0	0	10	0	2.0	5.8	173.21%	0.0	#DIV/0!	Hcn4
IPI00849279.2	4	0	0	3	3	10	3	2.0	2.3	173.21%	1.7	86.60%	Hrb
IPI00877323.1	4	0	4	2	0	10	2	2.0	2.3	86.60%	2.0	100.00%	Icmt
IPI00318935.2	3	0	3	2	2	10	2	2.0	1.7	86.60%	0.6	24.74%	Il6st
IPI00315550.3	2	3	3	0	2	10	2	2.0	0.6	21.65%	1.5	91.65%	Iqsec3
IPI00126390.1	3	3	0	2	2	10	2	2.0	1.7	86.60%	1.2	86.60%	Itfg1
IPI00121336.1	4	2	2	0	2	10	2	2.0	1.2	43.30%	1.2	86.60%	Itga5
IPI00853815.3	5	3	2	0	0	10	2	2.0	1.5	45.83%	1.2	173.21%	Itsn2
IPI00466672.3	4	0	0	2	4	10	2	2.0	2.3	173.21%	2.0	100.00%	Kcna4
IPI00420649.2	3	3	0	4	0	10	3	2.0	1.7	86.60%	2.3	173.21%	Kcnd3
IPI00230501.1	4	0	3	3	0	10	3	2.0	2.1	89.21%	1.7	86.60%	Krt24
IPI00120783.4	7	0	0	3	0	10	0	2.0	4.0	173.21%	1.7	173.21%	Lass2
IPI00480226.1	4	0	4	2	0	10	2	2.0	2.3	86.60%	2.0	100.00%	LOC100039740
IPI00116462.8	0	2	5	3	0	10	2	2.0	2.5	107.85%	2.5	94.37%	Loh11cr2a
IPI00321321.3	0	5	3	2	0	10	2	2.0	2.5	94.37%	1.5	91.65%	Lypla1
IPI00127227.2	4	0	4	2	0	10	2	2.0	2.3	86.60%	2.0	100.00%	Mrps31
IPI00648141.1	2	3	0	3	2	10	2	2.0	1.5	91.65%	1.5	91.65%	mt-Nd4
IPI00308479.7	2	3	5	0	0	10	2	2.0	1.5	45.83%	2.9	173.21%	Mtmr1
IPI00115866.2	0	5	3	2	0	10	2	2.0	2.5	94.37%	1.5	91.65%	Npr2
IPI00110487.1	3	0	2	3	2	10	2	2.0	1.5	91.65%	0.6	24.74%	Nup85
IPI00133350.1	3	3	4	0	0	10	3	2.0	0.6	17.32%	2.3	173.21%	Ola1
IPI00458230.2	2	0	0	4	4	10	2	2.0	1.2	173.21%	2.3	86.60%	Pde1b
IPI00138098.2	3	4	3	0	0	10	3	2.0	0.6	17.32%	1.7	173.21%	Pi4k2a
IPI00165834.4	2	4	4	0	0	10	2	2.0	1.2	34.64%	2.3	173.21%	Pigk

IPI00457544.1	0	5	2	3	0	10	2	2.0	2.5	107.85%	1.5	91.65%	Pllp
IPI00126719.1	3	3	2	2	0	10	2	2.0	0.6	21.65%	1.2	86.60%	Pnpt1
IPI00857273.1	2	2	4	0	2	10	2	2.0	1.2	43.30%	2.0	100.00%	Ppp2r5a
IPI00620988.1	4	0	0	2	4	10	2	2.0	2.3	173.21%	2.0	100.00%	Prosc
IPI00620460.4	4	3	0	3	0	10	3	2.0	2.1	89.21%	1.7	173.21%	Psmd13
IPI00110460.2	5	0	0	0	5	10	0	2.0	2.9	173.21%	2.9	173.21%	Ptpmt1
IPI00407917.1	4	4	0	2	0	10	2	2.0	2.3	86.60%	1.2	173.21%	Ptprn
IPI00116908.1	5	3	0	2	0	10	2	2.0	2.5	94.37%	1.2	173.21%	Rab22a
IPI00119111.2	4	0	4	2	0	10	2	2.0	2.3	86.60%	2.0	100.00%	Rab9b
IPI00463195.2	3	4	3	0	0	10	3	2.0	0.6	17.32%	1.7	173.21%	Reck
IPI00222044.1	2	0	3	5	0	10	2	2.0	1.5	91.65%	2.5	94.37%	Rgs14
IPI00318012.6	2	3	0	3	2	10	2	2.0	1.5	91.65%	1.5	91.65%	Rrbp1
IPI00270915.4	4	0	4	2	0	10	2	2.0	2.3	86.60%	2.0	100.00%	Sdcbp
IPI00133132.1	6	0	2	0	2	10	2	2.0	3.1	114.56%	1.2	86.60%	Sdf2
IPI00113713.1	4	4	2	0	0	10	2	2.0	1.2	34.64%	1.2	173.21%	Sdpr
IPI00875295.1	3	0	2	2	3	10	2	2.0	1.5	91.65%	0.6	24.74%	Setd7
IPI00115604.1	2	0	3	2	3	10	2	2.0	1.5	91.65%	0.6	21.65%	Slc39a10
IPI00274140.4	3	0	3	4	0	10	3	2.0	1.7	86.60%	2.1	89.21%	Slc4a3
IPI00153136.1	0	5	3	2	0	10	2	2.0	2.5	94.37%	1.5	91.65%	Slc5a3
IPI00130343.2	3	0	3	0	4	10	3	2.0	1.7	86.60%	2.1	89.21%	Slc7a10
IPI00877215.1	3	4	0	3	0	10	3	2.0	2.1	89.21%	1.7	173.21%	Snx2
IPI00221865.1	4	2	2	0	2	10	2	2.0	1.2	43.30%	1.2	86.60%	Sparc
IPI00317376.1	5	0	2	3	0	10	2	2.0	2.5	107.85%	1.5	91.65%	Spryd4
IPI00463297.4	4	4	0	0	2	10	2	2.0	2.3	86.60%	1.2	173.21%	Sri
IPI00135131.2	2	0	3	5	0	10	2	2.0	1.5	91.65%	2.5	94.37%	Stxbp6
IPI00283156.1	3	5	0	2	0	10	2	2.0	2.5	94.37%	1.2	173.21%	Tapt1
IPI00317794.5	0	4	0	3	3	10	3	2.0	2.3	173.21%	1.7	86.60%	Tmed4
IPI00122032.4	6	0	2	2	0	10	2	2.0	3.1	114.56%	1.2	86.60%	Tmem143
IPI00318750.4	0	2	3	5	0	10	2	2.0	1.5	91.65%	2.5	94.37%	Uba5
IPI00762371.2	4	0	6	0	0	10	0	2.0	3.1	91.65%	3.5	173.21%	Ubtf
IPI00113394.5	3	5	2	0	0	10	2	2.0	1.5	45.83%	1.2	173.21%	Ugt8a
IPI00126551.1	0	2	3	3	2	10	2	2.0	1.5	91.65%	0.6	21.65%	Vwf
IPI00750771.2	6	0	4	0	0	10	0	2.0	3.1	91.65%	2.3	173.21%	Wdfy3
IPI00620960.3	0	6	0	4	0	10	0	2.0	3.5	173.21%	2.3	173.21%	Wdr57

IPI00117687.1	0	4	5	0	0	9	0	1.8	2.6	88.19%	2.9	173.21%	1810020G14Rik
IPI00110918.1	5	0	2	2	0	9	2	1.8	2.5	107.85%	1.2	86.60%	6430548M08Rik
IPI00776048.1	2	0	2	3	2	9	2	1.8	1.2	86.60%	0.6	24.74%	6720456B07Rik
IPI00225201.5	2	0	0	4	3	9	2	1.8	1.2	173.21%	2.1	89.21%	Aass
IPI00132504.1	3	2	2	0	2	9	2	1.8	0.6	24.74%	1.2	86.60%	Adrbk1
IPI00170303.1	3	0	3	0	3	9	3	1.8	1.7	86.60%	1.7	86.60%	Apc
IPI00750217.1	0	3	2	2	2	9	2	1.8	1.5	91.65%	0.0	0.00%	Asl
IPI00131028.2	0	5	2	2	0	9	2	1.8	2.5	107.85%	1.2	86.60%	AU042671
IPI00230241.6	0	3	2	4	0	9	2	1.8	1.5	91.65%	2.0	100.00%	Azi1
IPI00471361.3	0	0	9	0	0	9	0	1.8	5.2	173.21%	5.2	173.21%	BC002199
IPI00113042.3	3	2	2	2	0	9	2	1.8	0.6	24.74%	1.2	86.60%	BC038286
IPI00880406.1	3	3	0	3	0	9	3	1.8	1.7	86.60%	1.7	173.21%	BC067047
IPI00121151.1	2	0	3	2	2	9	2	1.8	1.5	91.65%	0.6	24.74%	Cd82
IPI00828225.1	0	0	3	2	4	9	2	1.8	1.7	173.21%	1.0	33.33%	Cdc37
IPI00323971.2	0	0	5	0	4	9	0	1.8	2.9	173.21%	2.6	88.19%	Cdc42ep4
IPI00169914.1	0	7	0	2	0	9	0	1.8	4.0	173.21%	1.2	173.21%	Celsr2
IPI00874680.1	5	0	2	0	2	9	2	1.8	2.5	107.85%	1.2	86.60%	Centg2
IPI00403978.3	3	3	0	3	0	9	3	1.8	1.7	86.60%	1.7	173.21%	Clic5
IPI00125328.3	4	0	0	2	3	9	2	1.8	2.3	173.21%	1.5	91.65%	Cnnm1
IPI00223482.2	3	4	0	0	2	9	2	1.8	2.1	89.21%	1.2	173.21%	Colec12
IPI00785527.2	0	5	0	4	0	9	0	1.8	2.9	173.21%	2.3	173.21%	Cul5
IPI00453492.2	4	2	0	3	0	9	2	1.8	2.0	100.00%	1.7	173.21%	D230012E17Rik
IPI00380953.6	4	2	0	3	0	9	2	1.8	2.0	100.00%	1.7	173.21%	Ddx50
IPI00349069.4	4	2	3	0	0	9	2	1.8	1.0	33.33%	1.7	173.21%	Dock6
IPI00404707.1	4	5	0	0	0	9	0	1.8	2.6	88.19%	0.0	#DIV/0!	EG432865
IPI00453673.4	0	3	2	0	4	9	2	1.8	1.5	91.65%	2.0	100.00%	Fgf12
IPI00115871.3	5	0	0	4	0	9	0	1.8	2.9	173.21%	2.3	173.21%	Flywch1
IPI00228385.5	2	2	3	2	0	9	2	1.8	0.6	24.74%	1.5	91.65%	Fnbp1
IPI00465568.5	4	5	0	0	0	9	0	1.8	2.6	88.19%	0.0	#DIV/0!	Gdpd1
IPI00460042.4	4	0	2	3	0	9	2	1.8	2.0	100.00%	1.5	91.65%	Gpr56
IPI00308667.1	4	3	0	2	0	9	2	1.8	2.1	89.21%	1.2	173.21%	Grin2c
IPI00225805.7	2	3	0	2	2	9	2	1.8	1.5	91.65%	1.2	86.60%	Gsk3a
IPI00315908.1	2	0	0	5	2	9	2	1.8	1.2	173.21%	2.5	107.85%	Gspt1
IPI00116668.2	2	0	3	0	4	9	2	1.8	1.5	91.65%	2.1	89.21%	Hagh

IPI00625248.3	0	2	4	3	0	9	2	1.8	2.0	100.00%	2.1	89.21%	Heph
IPI00132960.2	5	0	4	0	0	9	0	1.8	2.6	88.19%	2.3	173.21%	Igf2r
IPI00116744.1	4	2	0	3	0	9	2	1.8	2.0	100.00%	1.7	173.21%	Ikbkap
IPI00345682.6	2	3	0	4	0	9	2	1.8	1.5	91.65%	2.3	173.21%	Ilf2
IPI00857213.1	3	3	3	0	0	9	3	1.8	0.0	0.00%	1.7	173.21%	Isyna1
IPI00469768.2	3	4	0	2	0	9	2	1.8	2.1	89.21%	1.2	173.21%	Itpka
IPI00132478.1	0	4	5	0	0	9	0	1.8	2.6	88.19%	2.9	173.21%	Krt16
IPI00115475.1	2	0	2	5	0	9	2	1.8	1.2	86.60%	2.5	107.85%	Krt18
IPI00131688.2	5	0	2	2	0	9	2	1.8	2.5	107.85%	1.2	86.60%	Leng4
IPI00127358.1	4	5	0	0	0	9	0	1.8	2.6	88.19%	0.0	#DIV/0!	LOC100039828
IPI00751129.1	4	0	2	3	0	9	2	1.8	2.0	100.00%	1.5	91.65%	Lrrc4b
IPI00454019.2	4	0	0	0	5	9	0	1.8	2.3	173.21%	2.9	173.21%	Map2k1ip1
IPI00165849.3	0	2	3	0	4	9	2	1.8	1.5	91.65%	2.1	89.21%	Mir16
IPI00473215.6	3	2	2	2	0	9	2	1.8	0.6	24.74%	1.2	86.60%	Mrpl4
IPI00126501.1	0	3	4	2	0	9	2	1.8	2.1	89.21%	2.0	100.00%	Mrps22
IPI00265471.2	5	0	0	4	0	9	0	1.8	2.9	173.21%	2.3	173.21%	Mtap1s
IPI00119886.1	2	0	4	0	3	9	2	1.8	2.0	100.00%	2.1	89.21%	Nkain4
IPI00131498.1	3	0	0	4	2	9	2	1.8	1.7	173.21%	2.0	100.00%	Nup62
IPI00120344.2	6	3	0	0	0	9	0	1.8	3.0	100.00%	0.0	#DIV/0!	Pak2
IPI00275992.3	2	2	3	2	0	9	2	1.8	0.6	24.74%	1.5	91.65%	Pbef1
IPI00346420.7	3	2	4	0	0	9	2	1.8	1.0	33.33%	2.3	173.21%	Pcdh10
IPI00122973.1	4	0	3	0	2	9	2	1.8	2.1	89.21%	1.5	91.65%	Pdzd8
IPI00226729.1	0	3	2	2	2	9	2	1.8	1.5	91.65%	0.0	0.00%	Plcl1
IPI00379391.2	5	2	2	0	0	9	2	1.8	1.7	57.74%	1.2	173.21%	Poldip2
IPI00421124.1	3	2	0	4	0	9	2	1.8	1.5	91.65%	2.3	173.21%	Ppapdc2
IPI00169699.4	0	0	0	7	2	9	0	1.8	0.0	#DIV/0!	3.6	120.19%	Ppfia4
IPI00133411.1	4	0	0	5	0	9	0	1.8	2.3	173.21%	2.9	173.21%	Prmt8
IPI00262303.2	0	4	5	0	0	9	0	1.8	2.6	88.19%	2.9	173.21%	Psma8
IPI00319880.1	0	5	4	0	0	9	0	1.8	2.6	88.19%	2.3	173.21%	Ptdss2
IPI00351246.3	3	0	3	0	3	9	3	1.8	1.7	86.60%	1.7	86.60%	Ptgs1
IPI00229274.1	0	5	4	0	0	9	0	1.8	2.6	88.19%	2.3	173.21%	Pxmp2
IPI00409345.3	6	0	3	0	0	9	0	1.8	3.0	100.00%	1.7	173.21%	Rad23b
IPI00875742.1	4	0	0	3	2	9	2	1.8	2.3	173.21%	1.5	91.65%	Rbbp9
IPI00330480.1	4	3	2	0	0	9	2	1.8	1.0	33.33%	1.2	173.21%	Rpl18

IPI00130304.1	4	2	0	3	0	9	2	1.8	2.0	100.00%	1.7	173.21%	Rps11
IPI00453792.2	0	2	5	2	0	9	2	1.8	2.5	107.85%	2.5	107.85%	Saps3
IPI00671073.3	0	0	6	3	0	9	0	1.8	3.5	173.21%	3.0	100.00%	Slc14a1
IPI00229516.1	0	2	4	0	3	9	2	1.8	2.0	100.00%	2.1	89.21%	Smpd2
IPI00271059.2	2	3	2	2	0	9	2	1.8	0.6	24.74%	1.2	86.60%	Snx1
IPI00421282.6	4	2	3	0	0	9	2	1.8	1.0	33.33%	1.7	173.21%	Stx4a
IPI00135563.1	3	0	0	3	3	9	3	1.8	1.7	173.21%	1.7	86.60%	Synj1
IPI00132148.1	5	4	0	0	0	9	0	1.8	2.6	88.19%	0.0	#DIV/0!	Tardbp
IPI00399961.2	0	5	4	0	0	9	0	1.8	2.6	88.19%	2.3	173.21%	Tars2
IPI00127176.3	0	2	3	2	2	9	2	1.8	1.5	91.65%	0.6	24.74%	Tcirg1
IPI00466999.1	2	0	3	2	2	9	2	1.8	1.5	91.65%	0.6	24.74%	Tfam
IPI00387302.4	3	2	2	2	0	9	2	1.8	0.6	24.74%	1.2	86.60%	Txn1
IPI00153862.2	0	0	9	0	0	9	0	1.8	5.2	173.21%	5.2	173.21%	Ube1y1
IPI00130597.3	2	4	3	0	0	9	2	1.8	1.0	33.33%	1.7	173.21%	Usp39
IPI00222382.4	4	5	0	0	0	9	0	1.8	2.6	88.19%	0.0	#DIV/0!	Xpr1
IPI00830169.1	3	2	0	3	0	8	2	1.6	1.5	91.65%	1.7	173.21%	2210010C04Rik
IPI00816914.1	3	0	3	2	0	8	2	1.6	1.7	86.60%	1.5	91.65%	2610528K11Rik
IPI00222263.3	0	0	0	5	3	8	0	1.6	0.0	#DIV/0!	2.5	94.37%	3930401K13Rik
IPI00411074.1	3	5	0	0	0	8	0	1.6	2.5	94.37%	0.0	#DIV/0!	4931406C07Rik
IPI00277362.6	2	4	2	0	0	8	2	1.6	1.2	43.30%	1.2	173.21%	5730419I09Rik
IPI00187288.6	0	3	0	2	3	8	2	1.6	1.7	173.21%	1.5	91.65%	A230051G13Rik
IPI00127464.1	3	2	0	3	0	8	2	1.6	1.5	91.65%	1.7	173.21%	Actl6b
IPI00775791.1	0	2	2	2	2	8	2	1.6	1.2	86.60%	0.0	0.00%	Adrbk2
IPI00320208.3	3	0	3	0	2	8	2	1.6	1.7	86.60%	1.5	91.65%	Aldh3b1
IPI00314788.5	2	0	2	2	2	8	2	1.6	1.2	86.60%	0.0	0.00%	Arl6ip1
IPI00116843.1	4	0	2	0	2	8	2	1.6	2.0	100.00%	1.2	86.60%	Armet
IPI00605842.1	3	3	2	0	0	8	2	1.6	0.6	21.65%	1.2	173.21%	Atp5e
IPI00123202.1	2	3	3	0	0	8	2	1.6	0.6	21.65%	1.7	173.21%	Bak1
IPI00410756.2	0	4	4	0	0	8	0	1.6	2.3	86.60%	2.3	173.21%	Birc6
IPI00172328.3	2	4	0	0	2	8	2	1.6	2.0	100.00%	1.2	173.21%	Cacng7
IPI00122494.1	5	0	0	3	0	8	0	1.6	2.9	173.21%	1.7	173.21%	Carhsp1
IPI00470162.5	0	5	3	0	0	8	0	1.6	2.5	94.37%	1.7	173.21%	Cav2
IPI00114401.1	3	0	3	2	0	8	2	1.6	1.7	86.60%	1.5	91.65%	Ccdc56
IPI00311509.1	0	4	4	0	0	8	0	1.6	2.3	86.60%	2.3	173.21%	Clcn2

IPI00136253.3	3	3	0	2	0	8	2	1.6	1.7	86.60%	1.2	173.21%	Clip1
IPI00137725.2	0	2	4	2	0	8	2	1.6	2.0	100.00%	2.0	100.00%	Cntnap4
IPI00380443.4	2	2	0	4	0	8	2	1.6	1.2	86.60%	2.3	173.21%	Col12a1
IPI00118069.1	3	0	2	3	0	8	2	1.6	1.5	91.65%	1.5	91.65%	Col15a1
IPI00123040.1	4	4	0	0	0	8	0	1.6	2.3	86.60%	0.0	#DIV/0!	Cpne8
IPI00115248.1	4	2	0	0	2	8	2	1.6	2.0	100.00%	1.2	173.21%	D430039N05Rik
IPI00124497.3	3	0	2	0	3	8	2	1.6	1.5	91.65%	1.5	91.65%	D630045J12Rik
IPI00624357.3	4	0	4	0	0	8	0	1.6	2.3	86.60%	2.3	173.21%	Dap3
IPI00153700.1	3	3	0	0	2	8	2	1.6	1.7	86.60%	1.2	173.21%	Dmxl1
IPI00116134.1	2	4	2	0	0	8	2	1.6	1.2	43.30%	1.2	173.21%	Doc2a
IPI00119846.1	0	4	4	0	0	8	0	1.6	2.3	86.60%	2.3	173.21%	Edc4
IPI00187512.7	4	0	2	0	2	8	2	1.6	2.0	100.00%	1.2	86.60%	Eea1
IPI00420796.2	2	3	0	0	3	8	2	1.6	1.5	91.65%	1.7	173.21%	Eef1b2
IPI00283532.5	0	3	3	0	2	8	2	1.6	1.7	86.60%	1.5	91.65%	Efnb2
IPI00331244.4	0	5	0	3	0	8	0	1.6	2.9	173.21%	1.7	173.21%	EG637748
IPI00318577.1	3	3	0	2	0	8	2	1.6	1.7	86.60%	1.2	173.21%	Eif3eip
IPI00139994.1	2	2	0	2	2	8	2	1.6	1.2	86.60%	1.2	86.60%	ENSMUSG00000029483
IPI00321816.6	0	5	0	3	0	8	0	1.6	2.9	173.21%	1.7	173.21%	ENSMUSG00000078125
IPI00124906.1	5	0	3	0	0	8	0	1.6	2.5	94.37%	1.7	173.21%	Fbxo2
IPI00467429.4	2	2	2	2	0	8	2	1.6	0.0	0.00%	1.2	86.60%	Flt1
IPI00761932.3	2	3	3	0	0	8	2	1.6	0.6	21.65%	1.7	173.21%	Fxyd1
IPI00124501.1	0	3	0	0	5	8	0	1.6	1.7	173.21%	2.9	173.21%	Gnb3
IPI00311072.2	0	2	3	3	0	8	2	1.6	1.5	91.65%	1.7	86.60%	Grlf1
IPI00314106.3	5	0	0	3	0	8	0	1.6	2.9	173.21%	1.7	173.21%	Gtf2i
IPI00171974.1	5	0	0	3	0	8	0	1.6	2.9	173.21%	1.7	173.21%	Hnrpul2
IPI00876165.1	6	0	0	2	0	8	0	1.6	3.5	173.21%	1.2	173.21%	Inpp1
IPI00229718.10	3	0	3	2	0	8	2	1.6	1.7	86.60%	1.5	91.65%	Itgb8
IPI00136642.1	0	8	0	0	0	8	0	1.6	4.6	173.21%	0.0	#DIV/0!	Krt79
IPI00654054.1	2	0	0	6	0	8	0	1.6	1.2	173.21%	3.5	173.21%	Lamc3
IPI00653146.1	0	2	0	6	0	8	0	1.6	1.2	173.21%	3.5	173.21%	Lemd3
IPI00648948.1	5	0	0	0	3	8	0	1.6	2.9	173.21%	1.7	173.21%	Lipa
IPI00115650.4	0	2	2	0	4	8	2	1.6	1.2	86.60%	2.0	100.00%	Lmtk3
IPI00331579.1	0	0	8	0	0	8	0	1.6	4.6	173.21%	4.6	173.21%	LOC641170
IPI00321919.1	3	0	2	3	0	8	2	1.6	1.5	91.65%	1.5	91.65%	Lrp4

IPI00856177.1	3	0	2	3	0	8	2	1.6	1.5	91.65%	1.5	91.65%	Lycat
IPI00130754.1	4	2	0	2	0	8	2	1.6	2.0	100.00%	1.2	173.21%	Lynx1
IPI00308545.1	2	0	0	4	2	8	2	1.6	1.2	173.21%	2.0	100.00%	M6prbp1
IPI00137309.1	4	0	0	4	0	8	0	1.6	2.3	173.21%	2.3	173.21%	Magmas
IPI00480321.2	0	3	0	2	3	8	2	1.6	1.7	173.21%	1.5	91.65%	Mark1
IPI00876153.1	2	2	2	0	2	8	2	1.6	0.0	0.00%	1.2	86.60%	Mcf2l
IPI00126940.1	0	4	4	0	0	8	0	1.6	2.3	86.60%	2.3	173.21%	Mcfd2
IPI00222723.1	4	0	2	2	0	8	2	1.6	2.0	100.00%	1.2	86.60%	Mdga2
IPI00227640.1	5	0	0	3	0	8	0	1.6	2.9	173.21%	1.7	173.21%	Mgrn1
IPI00130008.1	4	2	0	0	2	8	2	1.6	2.0	100.00%	1.2	173.21%	Mia3
IPI00317684.8	3	0	0	0	5	8	0	1.6	1.7	173.21%	2.9	173.21%	Mrpl10
IPI00128267.4	4	2	2	0	0	8	2	1.6	1.2	43.30%	1.2	173.21%	Mrps27
IPI00331155.4	0	4	0	0	4	8	0	1.6	2.3	173.21%	2.3	173.21%	mt-Co3
IPI00331165.2	0	0	0	8	0	8	0	1.6	0.0	#DIV/0!	4.6	173.21%	Myl1
IPI00648399.1	5	0	0	3	0	8	0	1.6	2.9	173.21%	1.7	173.21%	Nit1
IPI00126966.1	3	0	3	0	2	8	2	1.6	1.7	86.60%	1.5	91.65%	Nln
IPI00135208.1	2	0	2	4	0	8	2	1.6	1.2	86.60%	2.0	100.00%	Nmral1
IPI00668766.3	2	2	0	4	0	8	2	1.6	1.2	86.60%	2.3	173.21%	Nol3
IPI00135233.2	4	0	4	0	0	8	0	1.6	2.3	86.60%	2.3	173.21%	Nrp1
IPI00230615.8	2	0	0	3	3	8	2	1.6	1.2	173.21%	1.7	86.60%	Nsg2
IPI00380299.2	4	0	4	0	0	8	0	1.6	2.3	86.60%	2.3	173.21%	OTTMUSG00000000655
IPI00119945.1	2	0	3	3	0	8	2	1.6	1.5	91.65%	1.7	86.60%	Pacs2
IPI00607947.2	3	0	2	3	0	8	2	1.6	1.5	91.65%	1.5	91.65%	Pacsin2
IPI00114802.1	4	0	2	0	2	8	2	1.6	2.0	100.00%	1.2	86.60%	Pgm2l1
IPI00461286.1	2	2	2	2	0	8	2	1.6	0.0	0.00%	1.2	86.60%	Pitpnc1
IPI00169621.3	2	3	3	0	0	8	2	1.6	0.6	21.65%	1.7	173.21%	Plekha5
IPI00309113.1	2	0	0	3	3	8	2	1.6	1.2	173.21%	1.7	86.60%	Plscr3
IPI00111248.1	4	2	2	0	0	8	2	1.6	1.2	43.30%	1.2	173.21%	Ppm1a
IPI00828796.1	0	3	0	2	3	8	2	1.6	1.7	173.21%	1.5	91.65%	Ppp1r14a
IPI00138061.1	5	0	0	0	3	8	0	1.6	2.9	173.21%	1.7	173.21%	Ptgis
IPI00876567.1	4	0	2	0	2	8	2	1.6	2.0	100.00%	1.2	86.60%	Ptprm
IPI00845596.1	0	0	4	4	0	8	0	1.6	2.3	173.21%	2.3	86.60%	Rab15
IPI00380780.7	3	0	0	2	3	8	2	1.6	1.7	173.21%	1.5	91.65%	Rab3b
IPI00128358.1	3	0	3	2	0	8	2	1.6	1.7	86.60%	1.5	91.65%	Reep2

IPI00318048.5	2	0	3	3	0	8	2	1.6	1.5	91.65%	1.7	86.60%	Rnpep
IPI00654420.1	4	0	2	0	2	8	2	1.6	2.0	100.00%	1.2	86.60%	Robo2
IPI00225335.1	4	0	4	0	0	8	0	1.6	2.3	86.60%	2.3	173.21%	Rps18
IPI00380162.3	3	0	2	3	0	8	2	1.6	1.5	91.65%	1.5	91.65%	Rps6ka1
IPI00153633.1	0	5	0	3	0	8	0	1.6	2.9	173.21%	1.7	173.21%	Scn1b
IPI00224957.1	2	0	2	2	2	8	2	1.6	1.2	86.60%	0.0	0.00%	Sdc3
IPI00874719.1	4	0	2	2	0	8	2	1.6	2.0	100.00%	1.2	86.60%	Sec11c
IPI00313306.5	0	4	2	0	2	8	2	1.6	2.0	100.00%	1.2	86.60%	Sec24c
IPI00225761.5	3	0	0	5	0	8	0	1.6	1.7	173.21%	2.9	173.21%	Sfrs14
IPI00331507.8	0	5	3	0	0	8	0	1.6	2.5	94.37%	1.7	173.21%	Slc33a1
IPI00125992.1	2	0	0	3	3	8	2	1.6	1.2	173.21%	1.7	86.60%	Smap1
IPI00462191.3	3	0	2	3	0	8	2	1.6	1.5	91.65%	1.5	91.65%	Snrpa1
IPI00467809.2	0	5	0	0	3	8	0	1.6	2.9	173.21%	1.7	173.21%	Sort1
IPI00474407.2	4	2	0	2	0	8	2	1.6	2.0	100.00%	1.2	173.21%	Srp54a
IPI00120798.1	0	0	8	0	0	8	0	1.6	4.6	173.21%	4.6	173.21%	Ssr1
IPI00380220.2	2	0	3	3	0	8	2	1.6	1.5	91.65%	1.7	86.60%	Stam
IPI00165711.3	2	2	4	0	0	8	2	1.6	1.2	43.30%	2.3	173.21%	Sugt1
IPI00315488.1	0	4	0	2	2	8	2	1.6	2.3	173.21%	1.2	86.60%	Synpr
IPI00387504.1	0	0	4	4	0	8	0	1.6	2.3	173.21%	2.3	86.60%	Tex10
IPI00474530.4	0	3	0	2	3	8	2	1.6	1.7	173.21%	1.5	91.65%	Timm22
IPI00116746.1	2	2	0	2	2	8	2	1.6	1.2	86.60%	1.2	86.60%	Tmem132b
IPI00111600.1	0	0	0	6	2	8	0	1.6	0.0	#DIV/0!	3.1	114.56%	Tmsb4x
IPI00114099.2	0	4	0	4	0	8	0	1.6	2.3	173.21%	2.3	173.21%	Tspan9
IPI00222443.1	2	2	0	4	0	8	2	1.6	1.2	86.60%	2.3	173.21%	Ttll12
IPI00230429.4	0	3	3	2	0	8	2	1.6	1.7	86.60%	1.5	91.65%	Txnl1
IPI00311493.5	3	0	0	3	2	8	2	1.6	1.7	173.21%	1.5	91.65%	Uhrf1bp1l
IPI00330263.3	4	0	0	4	0	8	0	1.6	2.3	173.21%	2.3	173.21%	Unc84a
IPI00753292.3	4	2	2	0	0	8	2	1.6	1.2	43.30%	1.2	173.21%	Vldlr
IPI00221767.1	0	2	3	0	3	8	2	1.6	1.5	91.65%	1.7	86.60%	Vps13d
IPI00420602.3	2	0	3	3	0	8	2	1.6	1.5	91.65%	1.7	86.60%	Zdhhc17
IPI00129304.7	0	2	4	0	2	8	2	1.6	2.0	100.00%	2.0	100.00%	Zw10
IPI00310502.1	2	2	3	0	0	7	2	1.4	0.6	24.74%	1.7	173.21%	1810035L17Rik
IPI00844754.2	3	4	0	0	0	7	0	1.4	2.1	89.21%	0.0	#DIV/0!	4833436C18Rik
IPI00344583.2	0	7	0	0	0	7	0	1.4	4.0	173.21%	0.0	#DIV/0!	Abce1

IPI00307963.3	4	3	0	0	0	7	0	1.4	2.1	89.21%	0.0	#DIV/0!	Acp1
IPI00222514.3	0	3	2	2	0	7	2	1.4	1.5	91.65%	1.2	86.60%	Acyp1
IPI00330246.2	4	3	0	0	0	7	0	1.4	2.1	89.21%	0.0	#DIV/0!	Agpat4
IPI00124828.1	0	3	2	2	0	7	2	1.4	1.5	91.65%	1.2	86.60%	Ampd2
IPI00124614.1	5	0	2	0	0	7	0	1.4	2.5	107.85%	1.2	173.21%	Apbb1
IPI00127407.1	5	2	0	0	0	7	0	1.4	2.5	107.85%	0.0	#DIV/0!	Apoa1
IPI00621229.1	2	0	3	2	0	7	2	1.4	1.5	91.65%	1.5	91.65%	Arhgap5
IPI00223154.2	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Atg9a
IPI00831596.1	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Atp5s
IPI00321647.2	0	2	3	2	0	7	2	1.4	1.5	91.65%	1.5	91.65%	B2m
IPI00463573.3	0	2	2	3	0	7	2	1.4	1.2	86.60%	1.5	91.65%	Bai1
IPI00330122.2	3	0	0	4	0	7	0	1.4	1.7	173.21%	2.3	173.21%	Baz1b
IPI00222369.5	0	0	0	4	3	7	0	1.4	0.0	#DIV/0!	2.1	89.21%	BC060632
IPI00225194.4	4	0	0	0	3	7	0	1.4	2.3	173.21%	1.7	173.21%	Cacng3
IPI00314844.2	0	0	3	2	2	7	2	1.4	1.7	173.21%	0.6	24.74%	Camkk2
IPI00125454.1	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Clcc1
IPI00458001.1	2	2	3	0	0	7	2	1.4	0.6	24.74%	1.7	173.21%	Cnn3
IPI00464280.2	2	0	3	2	0	7	2	1.4	1.5	91.65%	1.5	91.65%	Cnnm3
IPI00331598.2	2	3	0	2	0	7	2	1.4	1.5	91.65%	1.2	173.21%	Copb2
IPI00222589.3	3	4	0	0	0	7	0	1.4	2.1	89.21%	0.0	#DIV/0!	Copg
IPI00136201.1	5	0	0	2	0	7	0	1.4	2.9	173.21%	1.2	173.21%	Copg2
IPI00120457.1	2	0	3	0	2	7	2	1.4	1.5	91.65%	1.5	91.65%	Cpox
IPI00457499.5	5	0	0	0	2	7	0	1.4	2.9	173.21%	1.2	173.21%	Ctsl
IPI00130399.1	2	0	3	2	0	7	2	1.4	1.5	91.65%	1.5	91.65%	Cttnbp2
IPI00126660.1	0	5	2	0	0	7	0	1.4	2.5	107.85%	1.2	173.21%	Dnajb10
IPI00876259.1	0	2	3	0	2	7	2	1.4	1.5	91.65%	1.5	91.65%	Dock10
IPI00462461.2	3	2	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Dos
IPI00798516.1	3	0	4	0	0	7	0	1.4	2.1	89.21%	2.3	173.21%	EG434426
IPI00117168.3	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	EG629732
IPI00222924.3	0	2	5	0	0	7	0	1.4	2.5	107.85%	2.9	173.21%	Enpp4
IPI00122131.1	4	3	0	0	0	7	0	1.4	2.1	89.21%	0.0	#DIV/0!	Erap1
IPI00308136.2	0	0	3	2	2	7	2	1.4	1.7	173.21%	0.6	24.74%	Exoc8
IPI00170345.1	4	0	3	0	0	7	0	1.4	2.1	89.21%	1.7	173.21%	Fndc3a
IPI00857891.1	3	0	4	0	0	7	0	1.4	2.1	89.21%	2.3	173.21%	Fxr1h

IPI00136274.2	2	0	3	2	0	7	2	1.4	1.5	91.65%	1.5	91.65%	Gamt
IPI00222750.7	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Gapvd1
IPI00319933.4	3	0	2	2	0	7	2	1.4	1.5	91.65%	1.2	86.60%	Gpsm1
IPI00110827.1	3	0	0	4	0	7	0	1.4	1.7	173.21%	2.3	173.21%	Gsta4
IPI00112138.1	0	0	3	2	2	7	2	1.4	1.7	173.21%	0.6	24.74%	H2-Bl
IPI00284925.3	4	0	3	0	0	7	0	1.4	2.1	89.21%	1.7	173.21%	Hip1r
IPI00315325.1	0	0	0	7	0	7	0	1.4	0.0	#DIV/0!	4.0	173.21%	Hist1h1a
IPI00471120.2	0	0	3	4	0	7	0	1.4	1.7	173.21%	2.1	89.21%	Hnrnpr
IPI00798610.1	2	0	3	2	0	7	2	1.4	1.5	91.65%	1.5	91.65%	Hnrph2
IPI00848632.1	3	0	2	0	2	7	2	1.4	1.5	91.65%	1.2	86.60%	Itch
IPI00330066.5	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Kcnq2
IPI00467435.2	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Kit
IPI00647997.1	3	0	2	0	2	7	2	1.4	1.5	91.65%	1.2	86.60%	Kpna3
IPI00131674.3	0	0	2	3	2	7	2	1.4	1.2	173.21%	0.6	24.74%	Lasp1
IPI00351252.4	2	0	3	2	0	7	2	1.4	1.5	91.65%	1.5	91.65%	Lnp
IPI00284816.4	4	0	3	0	0	7	0	1.4	2.1	89.21%	1.7	173.21%	LOC100045493
IPI00850771.1	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	LOC100047156
IPI00222188.4	4	0	3	0	0	7	0	1.4	2.1	89.21%	1.7	173.21%	LOC100048369
IPI00742415.1	0	0	0	2	5	7	0	1.4	0.0	#DIV/0!	2.5	107.85%	Ly6h
IPI00469712.3	3	4	0	0	0	7	0	1.4	2.1	89.21%	0.0	#DIV/0!	Mest
IPI00125662.2	3	4	0	0	0	7	0	1.4	2.1	89.21%	0.0	#DIV/0!	Mgea5
IPI00466711.2	0	5	2	0	0	7	0	1.4	2.5	107.85%	1.2	173.21%	Mgst1
IPI00223437.4	0	4	3	0	0	7	0	1.4	2.1	89.21%	1.7	173.21%	Mlstd2
IPI00876478.1	0	0	3	4	0	7	0	1.4	1.7	173.21%	2.1	89.21%	Mobp
IPI00340103.1	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Mrpl19
IPI00881328.1	5	0	0	0	2	7	0	1.4	2.9	173.21%	1.2	173.21%	Mrpl37
IPI00117083.1	2	0	0	2	3	7	2	1.4	1.2	173.21%	1.5	91.65%	Mrps9
IPI00113143.1	2	0	5	0	0	7	0	1.4	2.5	107.85%	2.9	173.21%	Mtmr2
IPI00230355.1	2	0	3	2	0	7	2	1.4	1.5	91.65%	1.5	91.65%	Mycbp
IPI00460127.2	0	0	0	7	0	7	0	1.4	0.0	#DIV/0!	4.0	173.21%	Mylpf
IPI00229810.4	3	0	2	2	0	7	2	1.4	1.5	91.65%	1.2	86.60%	Nola2
IPI00762140.1	0	2	2	0	3	7	2	1.4	1.2	86.60%	1.5	91.65%	Nup205
IPI00471265.2	0	2	2	3	0	7	2	1.4	1.2	86.60%	1.5	91.65%	Nup54
IPI00314989.2	2	0	3	0	2	7	2	1.4	1.5	91.65%	1.5	91.65%	Ocrl

IPI00310627.3	3	0	2	0	2	7	2	1.4	1.5	91.65%	1.2	86.60%	Pacsin3
IPI00108143.1	2	0	2	0	3	7	2	1.4	1.2	86.60%	1.5	91.65%	Pak7
IPI00227157.5	2	2	0	3	0	7	2	1.4	1.2	86.60%	1.7	173.21%	Pbxip1
IPI00137172.1	3	0	2	2	0	7	2	1.4	1.5	91.65%	1.2	86.60%	Pepd
IPI00649880.2	0	3	4	0	0	7	0	1.4	2.1	89.21%	2.3	173.21%	Pla2g7
IPI00468204.1	0	3	0	4	0	7	0	1.4	1.7	173.21%	2.3	173.21%	Purb
IPI00132089.2	0	3	2	2	0	7	2	1.4	1.5	91.65%	1.2	86.60%	Pycrl
IPI00120155.1	2	0	0	3	2	7	2	1.4	1.2	173.21%	1.5	91.65%	Ranbp9
IPI00330167.4	2	0	0	3	2	7	2	1.4	1.2	173.21%	1.5	91.65%	Rnps1
IPI00115591.1	4	0	3	0	0	7	0	1.4	2.1	89.21%	1.7	173.21%	Rpl11
IPI00464151.3	0	0	7	0	0	7	0	1.4	4.0	173.21%	4.0	173.21%	Rpl23a
IPI00228497.1	0	5	0	2	0	7	0	1.4	2.9	173.21%	1.2	173.21%	Rpl24
IPI00457680.3	5	0	0	2	0	7	0	1.4	2.9	173.21%	1.2	173.21%	Rps24
IPI00462005.1	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Rps8
IPI00853896.1	3	4	0	0	0	7	0	1.4	2.1	89.21%	0.0	#DIV/0!	Rsu1
IPI00123744.1	0	4	3	0	0	7	0	1.4	2.1	89.21%	1.7	173.21%	Ryr1
IPI00330866.1	2	0	0	3	2	7	2	1.4	1.2	173.21%	1.5	91.65%	Saps2
IPI00172197.2	0	3	4	0	0	7	0	1.4	2.1	89.21%	2.3	173.21%	Sardh
IPI00113563.2	3	0	2	2	0	7	2	1.4	1.5	91.65%	1.2	86.60%	Scyl2
IPI00120674.2	0	2	3	0	2	7	2	1.4	1.5	91.65%	1.5	91.65%	Sgsm1
IPI00153234.2	3	0	2	2	0	7	2	1.4	1.5	91.65%	1.2	86.60%	Sgta
IPI00126011.1	5	0	2	0	0	7	0	1.4	2.5	107.85%	1.2	173.21%	Slc7a3
IPI00762547.2	2	0	2	0	3	7	2	1.4	1.2	86.60%	1.5	91.65%	Slk
IPI00755042.1	0	0	0	7	0	7	0	1.4	0.0	#DIV/0!	4.0	173.21%	Smarca5
IPI00462453.4	3	2	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Smpd1
IPI00129489.1	0	0	4	3	0	7	0	1.4	2.3	173.21%	2.1	89.21%	Snx6
IPI00462975.3	3	2	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Spag9
IPI00116285.2	3	0	0	2	2	7	2	1.4	1.7	173.21%	1.2	86.60%	Spg20
IPI00387245.1	3	0	4	0	0	7	0	1.4	2.1	89.21%	2.3	173.21%	Spns1
IPI00605141.2	3	2	0	0	2	7	2	1.4	1.5	91.65%	1.2	173.21%	Strn
IPI00282957.4	5	0	0	0	2	7	0	1.4	2.9	173.21%	1.2	173.21%	Strn3
IPI00858037.1	0	0	2	5	0	7	0	1.4	1.2	173.21%	2.5	107.85%	Syncrip
IPI00119959.1	2	2	0	3	0	7	2	1.4	1.2	86.60%	1.7	173.21%	Syngr3
IPI00659001.1	3	2	0	2	0	7	2	1.4	1.5	91.65%	1.2	173.21%	Tmem132a

IPI00135968.2	0	5	0	0	2	7	0	1.4	2.9	173.21%	1.2	173.21%	Tor1aip1
IPI00131814.1	0	4	3	0	0	7	0	1.4	2.1	89.21%	1.7	173.21%	Tpbg
IPI00330411.4	4	3	0	0	0	7	0	1.4	2.1	89.21%	0.0	#DIV/0!	Trim9
IPI00754025.1	2	0	2	3	0	7	2	1.4	1.2	86.60%	1.5	91.65%	Trip12
IPI00120684.2	2	2	0	3	0	7	2	1.4	1.2	86.60%	1.7	173.21%	Ttc15
IPI00331653.1	3	0	0	2	2	7	2	1.4	1.7	173.21%	1.2	86.60%	Ttn
IPI00625893.3	2	3	0	0	2	7	2	1.4	1.5	91.65%	1.2	173.21%	Ube2z
IPI00666427.3	4	0	0	3	0	7	0	1.4	2.3	173.21%	1.7	173.21%	Ubqln4
IPI00136056.1	0	0	4	0	3	7	0	1.4	2.3	173.21%	2.1	89.21%	Uqcr
IPI00467598.2	0	7	0	0	0	7	0	1.4	4.0	173.21%	0.0	#DIV/0!	Wasf2
IPI00758298.1	2	3	2	0	0	7	2	1.4	0.6	24.74%	1.2	173.21%	Wdr13
IPI00420312.4	0	2	0	3	2	7	2	1.4	1.2	173.21%	1.5	91.65%	Wnk2
IPI00130331.3	0	2	3	2	0	7	2	1.4	1.5	91.65%	1.5	91.65%	Yars2
IPI00348488.5	2	2	2	0	0	6	2	1.2	0.0	0.00%	1.2	173.21%	1700020C11Rik
IPI00128127.1	2	2	0	0	2	6	2	1.2	1.2	86.60%	1.2	173.21%	1810034K20Rik
IPI00121359.4	2	0	0	2	2	6	2	1.2	1.2	173.21%	1.2	86.60%	2310003C23Rik
IPI00830478.1	0	3	3	0	0	6	0	1.2	1.7	86.60%	1.7	173.21%	2900024O10Rik
IPI00881113.1	4	0	2	0	0	6	0	1.2	2.0	100.00%	1.2	173.21%	3110004L20Rik
IPI00277271.2	3	0	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	4932442K08Rik
IPI00120503.1	0	0	4	2	0	6	0	1.2	2.3	173.21%	2.0	100.00%	Acin1
IPI00762221.2	4	0	2	0	0	6	0	1.2	2.0	100.00%	1.2	173.21%	Acy1
IPI00377615.2	2	4	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Adcyap1r1
IPI00129070.2	6	0	0	0	0	6	0	1.2	3.5	173.21%	0.0	#DIV/0!	Ahi1
IPI00133365.1	4	0	2	0	0	6	0	1.2	2.0	100.00%	1.2	173.21%	Apoc3
IPI00273406.3	0	2	4	0	0	6	0	1.2	2.0	100.00%	2.3	173.21%	Apoh
IPI00556838.1	4	2	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Appl2
IPI00336292.2	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Arhgef17
IPI00322492.3	0	4	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Arhgef9
IPI00223670.2	2	0	0	0	4	6	0	1.2	1.2	173.21%	2.3	173.21%	Asphd2
IPI00320034.6	0	6	0	0	0	6	0	1.2	3.5	173.21%	0.0	#DIV/0!	Atp6v0a2
IPI00112900.1	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Atp7a
IPI00121114.2	4	2	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Atp8a2
IPI00130567.1	2	2	0	2	0	6	2	1.2	1.2	86.60%	1.2	173.21%	Atrn
IPI00228583.5	2	0	2	0	2	6	2	1.2	1.2	86.60%	1.2	86.60%	BC017158

IPI00111953.1	3	0	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Blvra
IPI00230719.8	0	3	3	0	0	6	0	1.2	1.7	86.60%	1.7	173.21%	Bri3bp
IPI00229895.1	2	2	2	0	0	6	2	1.2	0.0	0.00%	1.2	173.21%	Brp44l
IPI00515701.1	3	0	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Brsk2
IPI00776271.1	4	0	2	0	0	6	0	1.2	2.0	100.00%	1.2	173.21%	Cd151
IPI00857644.1	2	0	4	0	0	6	0	1.2	2.0	100.00%	2.3	173.21%	Cd34
IPI00330225.2	2	2	2	0	0	6	2	1.2	0.0	0.00%	1.2	173.21%	Ceacam1
IPI00227372.1	2	0	0	0	4	6	0	1.2	1.2	173.21%	2.3	173.21%	Cept1
IPI00124223.3	3	3	0	0	0	6	0	1.2	1.7	86.60%	0.0	#DIV/0!	Clcn4-2
IPI00124225.3	0	6	0	0	0	6	0	1.2	3.5	173.21%	0.0	#DIV/0!	Cldn10a
IPI00606219.2	0	4	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Cntn4
IPI00470086.1	2	0	0	0	4	6	0	1.2	1.2	173.21%	2.3	173.21%	Cpne1
IPI00331286.3	0	0	2	2	2	6	2	1.2	1.2	173.21%	0.0	0.00%	Creld2
IPI00336247.4	2	2	0	2	0	6	2	1.2	1.2	86.60%	1.2	173.21%	Csnk1g1
IPI00133550.1	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Cul1
IPI00856438.1	0	2	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	D130029J02Rik
IPI00651876.3	3	3	0	0	0	6	0	1.2	1.7	86.60%	0.0	#DIV/0!	D330017J20Rik
IPI00119341.1	0	3	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Diap1
IPI00828491.1	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Dip2c
IPI00111273.1	2	0	2	0	2	6	2	1.2	1.2	86.60%	1.2	86.60%	Echdc1
IPI00128152.1	0	2	4	0	0	6	0	1.2	2.0	100.00%	2.3	173.21%	Efnb1
IPI00123676.1	0	2	0	4	0	6	0	1.2	1.2	173.21%	2.3	173.21%	EG238217
IPI00624726.2	0	2	0	4	0	6	0	1.2	1.2	173.21%	2.3	173.21%	EG625929
IPI00416918.3	3	0	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Eif3b
IPI00119795.2	3	3	0	0	0	6	0	1.2	1.7	86.60%	0.0	#DIV/0!	Eif3h
IPI00677736.2	2	0	2	0	2	6	2	1.2	1.2	86.60%	1.2	86.60%	Emd
IPI00322869.3	2	0	0	4	0	6	0	1.2	1.2	173.21%	2.3	173.21%	Ensa
IPI00226993.5	0	0	6	0	0	6	0	1.2	3.5	173.21%	3.5	173.21%	ENSMUSG00000054284
IPI00115097.1	0	0	0	2	4	6	0	1.2	0.0	#DIV/0!	2.0	100.00%	ENSMUSG00000068233
IPI00403414.3	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	ENSMUSG00000073229
IPI00461532.4	2	0	2	0	2	6	2	1.2	1.2	86.60%	1.2	86.60%	Epn2
IPI00607080.1	2	0	0	4	0	6	0	1.2	1.2	173.21%	2.3	173.21%	Exoc5
IPI00875706.1	2	4	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Extl2
IPI00322542.1	4	0	2	0	0	6	0	1.2	2.0	100.00%	1.2	173.21%	Fnta

IPI00122421.5	2	4	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Fryl
IPI00125880.1	2	0	0	2	2	6	2	1.2	1.2	173.21%	1.2	86.60%	Gga3
IPI00108189.4	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Gnpat
IPI00775835.1	3	0	3	0	0	6	0	1.2	1.7	86.60%	1.7	173.21%	Golga5
IPI00153653.1	0	0	3	3	0	6	0	1.2	1.7	173.21%	1.7	86.60%	Grcc10
IPI00121485.1	3	0	3	0	0	6	0	1.2	1.7	86.60%	1.7	173.21%	Hdlbp
IPI00459344.2	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Heatr5b
IPI00123486.1	3	3	0	0	0	6	0	1.2	1.7	86.60%	0.0	#DIV/0!	Hook3
IPI00320188.5	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Icam1
IPI00153644.3	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Ide
IPI00153445.1	0	3	3	0	0	6	0	1.2	1.7	86.60%	1.7	173.21%	Igsf1
IPI00133920.3	2	4	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Irgq
IPI00118900.1	2	0	2	0	2	6	2	1.2	1.2	86.60%	1.2	86.60%	Itgam
IPI00406193.4	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Kcnj9
IPI00309089.6	0	6	0	0	0	6	0	1.2	3.5	173.21%	0.0	#DIV/0!	Kctd16
IPI00131873.1	0	0	0	2	4	6	0	1.2	0.0	#DIV/0!	2.0	100.00%	Kpna1
IPI00380474.2	2	2	0	2	0	6	2	1.2	1.2	86.60%	1.2	173.21%	L2hgdh
IPI00314443.3	2	0	4	0	0	6	0	1.2	2.0	100.00%	2.3	173.21%	Lamp2
IPI00312771.7	4	2	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	LOC100040745
IPI00273491.6	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	LOC100043106
IPI00331432.4	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	LOC100043209
IPI00816878.1	2	0	4	0	0	6	0	1.2	2.0	100.00%	2.3	173.21%	LOC100044204
IPI00169883.1	4	2	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Lonp2
IPI00124819.1	0	0	0	4	2	6	0	1.2	0.0	#DIV/0!	2.0	100.00%	Lrp1b
IPI00321597.6	2	0	2	0	2	6	2	1.2	1.2	86.60%	1.2	86.60%	Lrrc8b
IPI00312076.4	4	0	0	0	2	6	0	1.2	2.3	173.21%	1.2	173.21%	Lsr
IPI00406419.4	2	0	0	2	2	6	2	1.2	1.2	173.21%	1.2	86.60%	Lta4h
IPI00649917.1	0	0	0	3	3	6	0	1.2	0.0	#DIV/0!	1.7	86.60%	Lypla2
IPI00272854.2	0	2	0	2	2	6	2	1.2	1.2	173.21%	1.2	86.60%	Magoh
IPI00228059.4	0	2	0	2	2	6	2	1.2	1.2	173.21%	1.2	86.60%	Magoh-rs1
IPI00420909.1	4	2	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Man2a2
IPI00339885.2	0	3	3	0	0	6	0	1.2	1.7	86.60%	1.7	173.21%	Mark3
IPI00460668.2	6	0	0	0	0	6	0	1.2	3.5	173.21%	0.0	#DIV/0!	Mfge8
IPI00462502.3	0	4	0	0	2	6	0	1.2	2.3	173.21%	1.2	173.21%	Mlf2

IPI00229517.5	0	4	0	0	2	6	0	1.2	2.3	173.21%	1.2	173.21%	Mrpl13
IPI00130225.1	6	0	0	0	0	6	0	1.2	3.5	173.21%	0.0	#DIV/0!	Mrpl44
IPI00554860.3	4	0	0	0	2	6	0	1.2	2.3	173.21%	1.2	173.21%	Mrpl45
IPI00128145.4	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Mrpl50
IPI00130629.3	2	0	0	2	2	6	2	1.2	1.2	173.21%	1.2	86.60%	Mtpn
IPI00311591.3	0	0	0	6	0	6	0	1.2	0.0	#DIV/0!	3.5	173.21%	Myh7
IPI00121350.1	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Nope
IPI00127406.1	0	2	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Nt5c3
IPI00623845.3	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Nubpl
IPI00881959.1	3	0	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Nup50
IPI00169513.2	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Odz1
IPI00321923.5	0	2	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Papd1
IPI00222203.1	0	0	4	2	0	6	0	1.2	2.3	173.21%	2.0	100.00%	Pcdh9
IPI00262349.2	3	0	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Pddc1
IPI00126634.1	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Pde4b
IPI00310567.2	2	0	2	0	2	6	2	1.2	1.2	86.60%	1.2	86.60%	Pde8a
IPI00169472.3	0	2	4	0	0	6	0	1.2	2.0	100.00%	2.3	173.21%	Pet112l
IPI00673513.2	2	2	2	0	0	6	2	1.2	0.0	0.00%	1.2	173.21%	Pgbd5
IPI00120173.1	0	3	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Pik3r4
IPI00117834.3	0	4	2	0	0	6	0	1.2	2.0	100.00%	1.2	173.21%	Pip5k1a
IPI00322204.4	0	4	0	0	2	6	0	1.2	2.3	173.21%	1.2	173.21%	Pitpnm2
IPI00400301.2	0	0	4	2	0	6	0	1.2	2.3	173.21%	2.0	100.00%	Pla2g4e
IPI00453611.4	2	4	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Plscr1
IPI00649035.1	0	0	2	2	2	6	2	1.2	1.2	173.21%	0.0	0.00%	Ppm1e
IPI00607025.2	2	0	4	0	0	6	0	1.2	2.0	100.00%	2.3	173.21%	Pscd2
IPI00330653.2	3	0	3	0	0	6	0	1.2	1.7	86.60%	1.7	173.21%	Ptk7
IPI00460667.2	2	0	0	4	0	6	0	1.2	1.2	173.21%	2.3	173.21%	Rbmx
IPI00310841.4	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Rdh5
IPI00788387.1	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Rftn2
IPI00321396.1	0	3	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Rock1
IPI00116372.1	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Rpl15
IPI00226714.1	4	2	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Rpl17
IPI00221523.4	2	4	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Rtn4ip1
IPI00132470.1	4	0	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	S100a13

IPI00127989.1	2	0	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Safb
IPI00762273.1	3	3	0	0	0	6	0	1.2	1.7	86.60%	0.0	#DIV/0!	Sar1b
IPI00458351.2	2	2	2	0	0	6	2	1.2	0.0	0.00%	1.2	173.21%	Scamp2
IPI00377298.2	4	2	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Scg3
IPI00225318.3	4	0	0	0	2	6	0	1.2	2.3	173.21%	1.2	173.21%	Scoc
IPI00169524.2	3	3	0	0	0	6	0	1.2	1.7	86.60%	0.0	#DIV/0!	Sec23b
IPI00515622.1	2	0	4	0	0	6	0	1.2	2.0	100.00%	2.3	173.21%	Sec24b
IPI00119725.1	3	0	0	0	3	6	0	1.2	1.7	173.21%	1.7	173.21%	Sez6l
IPI00128154.1	3	0	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Sirt5
IPI00466645.3	4	2	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Slc20a2
IPI00648888.1	2	0	0	2	2	6	2	1.2	1.2	173.21%	1.2	86.60%	Slc7a14
IPI00378224.2	2	4	0	0	0	6	0	1.2	2.0	100.00%	0.0	#DIV/0!	Slco1a4
IPI00621272.3	2	2	2	0	0	6	2	1.2	0.0	0.00%	1.2	173.21%	Slmap
IPI00606142.3	2	0	0	4	0	6	0	1.2	1.2	173.21%	2.3	173.21%	Snx4
IPI00117994.1	3	0	0	3	0	6	0	1.2	1.7	173.21%	1.7	173.21%	Srm
IPI00109313.1	3	0	0	0	3	6	0	1.2	1.7	173.21%	1.7	173.21%	Stk39
IPI00649324.2	2	0	2	0	2	6	2	1.2	1.2	86.60%	1.2	86.60%	Sult4a1
IPI00378671.3	2	2	2	0	0	6	2	1.2	0.0	0.00%	1.2	173.21%	Surf1
IPI00136915.2	0	0	0	0	6	6	0	1.2	0.0	#DIV/0!	3.5	173.21%	Tmem9b
IPI00877236.1	0	2	0	4	0	6	0	1.2	1.2	173.21%	2.3	173.21%	Tra2a
IPI00662189.2	2	2	0	2	0	6	2	1.2	1.2	86.60%	1.2	173.21%	Trappc4
IPI00133700.2	6	0	0	0	0	6	0	1.2	3.5	173.21%	0.0	#DIV/0!	Try10
IPI00473445.1	2	2	0	0	2	6	2	1.2	1.2	86.60%	1.2	173.21%	Ube3c
IPI00849403.1	3	0	3	0	0	6	0	1.2	1.7	86.60%	1.7	173.21%	Vamp7
IPI00122227.1	0	2	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Vcpip1
IPI00132942.1	0	4	2	0	0	6	0	1.2	2.0	100.00%	1.2	173.21%	Vps37c
IPI00135345.3	0	4	0	2	0	6	0	1.2	2.3	173.21%	1.2	173.21%	Vtn
IPI00122562.3	2	2	0	2	0	6	2	1.2	1.2	86.60%	1.2	173.21%	Wdr26
IPI00111981.1	0	0	3	3	0	6	0	1.2	1.7	173.21%	1.7	86.60%	Wipi2
IPI00652397.1	4	0	2	0	0	6	0	1.2	2.0	100.00%	1.2	173.21%	Wwp1
IPI00420290.2	0	2	2	2	0	6	2	1.2	1.2	86.60%	1.2	86.60%	Zdhhc20
IPI00749628.1	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	1110007L15Rik
IPI00131535.1	0	0	3	0	2	5	0	1.0	1.7	173.21%	1.5	91.65%	1300012G16Rik
IPI00128202.1	0	3	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	1810007P19Rik

IPI00123138.1	0	0	0	3	2	5	0	1.0	0.0	#DIV/0!	1.5	91.65%	2010107E04Rik
IPI00117223.4	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	2310005E10Rik
IPI00125091.1	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	2900010M23Rik
IPI00331173.8	0	0	0	2	3	5	0	1.0	0.0	#DIV/0!	1.5	91.65%	6330503C03Rik
IPI00762609.2	0	3	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Abcc8
IPI00762803.1	0	3	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Accn2
IPI00123302.1	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Actl6a
IPI00135680.1	0	5	0	0	0	5	0	1.0	2.9	173.21%	0.0	#DIV/0!	Adcy4
IPI00875282.1	0	3	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Adk
IPI00875087.1	0	3	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Adprh
IPI00319646.3	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	Akap7
IPI00515222.1	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Ankrd38
IPI00122442.1	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Aqr
IPI00415385.1	0	2	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	AW555464
IPI00228826.1	0	0	0	2	3	5	0	1.0	0.0	#DIV/0!	1.5	91.65%	Banf1
IPI00313513.6	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Bax
IPI00272521.3	0	0	0	0	5	5	0	1.0	0.0	#DIV/0!	2.9	173.21%	Bcat2
IPI00226771.4	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Brsk1
IPI00675981.4	3	0	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Cabc1
IPI00881155.1	0	0	0	3	2	5	0	1.0	0.0	#DIV/0!	1.5	91.65%	Car12
IPI00122554.3	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Ccdc22
IPI00130409.1	0	5	0	0	0	5	0	1.0	2.9	173.21%	0.0	#DIV/0!	Ccnyl1
IPI00469947.2	0	0	3	0	2	5	0	1.0	1.7	173.21%	1.5	91.65%	Cd97
IPI00453531.2	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Cdc73
IPI00377465.3	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Chmp4b
IPI00136483.1	0	5	0	0	0	5	0	1.0	2.9	173.21%	0.0	#DIV/0!	Cisd2
IPI00117063.1	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Clip3
IPI00314549.4	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Col18a1
IPI00226188.2	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Cpsf3
IPI00620156.1	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	Crocc
IPI00125901.5	0	0	2	0	3	5	0	1.0	1.2	173.21%	1.5	91.65%	Crot
IPI00387194.1	0	3	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Crry
IPI00626909.1	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Cryl1
IPI00133744.1	0	0	5	0	0	5	0	1.0	2.9	173.21%	2.9	173.21%	Csnk1e

IPI00653724.1	3	0	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Cst3
IPI00134420.1	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Cuta
IPI00410978.2	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Cyp20a1
IPI00221890.6	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	D430041B17Rik
IPI00129107.1	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Dab2
IPI00133349.1	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Dclk2
IPI00405549.3	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Ddx18
IPI00331528.9	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Ddx21
IPI00627049.2	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	Ddx6
IPI00125832.1	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Dgki
IPI00624581.3	0	0	0	0	5	5	0	1.0	0.0	#DIV/0!	2.9	173.21%	Dnahc9
IPI00116938.1	0	3	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Dnaja4
IPI00128642.1	2	0	0	0	3	5	0	1.0	1.2	173.21%	1.7	173.21%	Dpp3
IPI00474637.4	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	E430025E21Rik
IPI00828412.1	5	0	0	0	0	5	0	1.0	2.9	173.21%	0.0	#DIV/0!	EG432491
IPI00421119.4	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	EG546052
IPI00475203.1	0	0	2	0	3	5	0	1.0	1.2	173.21%	1.5	91.65%	Eif2s2
IPI00230631.5	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Eif4b
IPI00323911.3	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	ENSMUSG00000021704
IPI00387362.2	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	ENSMUSG00000042744
IPI00273803.4	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Fat2
IPI00221611.3	0	2	0	0	3	5	0	1.0	1.2	173.21%	1.7	173.21%	Fdxr
IPI00604967.3	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	Fermt3
IPI00118590.1	0	3	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Fkbp15
IPI00221817.5	0	0	2	3	0	5	0	1.0	1.2	173.21%	1.5	91.65%	Fkbp1a
IPI00461456.1	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Fmo5
IPI00126301.1	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Fmr1
IPI00828490.2	3	0	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Fut9
IPI00411145.1	0	0	2	3	0	5	0	1.0	1.2	173.21%	1.5	91.65%	G3bp1
IPI00876343.1	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Gnpda1
IPI00109813.1	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Grik3
IPI00120049.1	0	0	5	0	0	5	0	1.0	2.9	173.21%	2.9	173.21%	Grm4
IPI00165730.4	0	0	5	0	0	5	0	1.0	2.9	173.21%	2.9	173.21%	Gucy1a3
IPI00875198.1	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	H13

IPI00118952.1	0	0	0	5	0	5	0	1.0	0.0	#DIV/0!	2.9	173.21%	Hapln2
IPI00133243.1	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Hars2
IPI00867895.1	0	2	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Hdac11
IPI00625316.2	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Hectd3
IPI00133526.1	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Herc1
IPI00128741.1	2	0	0	0	3	5	0	1.0	1.2	173.21%	1.7	173.21%	Hint1
IPI00463026.4	0	3	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Hmgcs1
IPI00113703.1	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Hnrnpa0
IPI00132350.1	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Inpp4b
IPI00127109.4	0	0	0	5	0	5	0	1.0	0.0	#DIV/0!	2.9	173.21%	Kif3a
IPI00678003.1	0	3	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Limch1
IPI00221501.2	0	5	0	0	0	5	0	1.0	2.9	173.21%	0.0	#DIV/0!	LOC100039215
IPI00113278.1	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	LOC100047516
IPI00222008.2	0	0	0	5	0	5	0	1.0	0.0	#DIV/0!	2.9	173.21%	Lyz
IPI00654397.1	0	0	0	5	0	5	0	1.0	0.0	#DIV/0!	2.9	173.21%	Lyzs
IPI00381059.1	0	0	3	0	2	5	0	1.0	1.7	173.21%	1.5	91.65%	Marcksl1
IPI00135197.5	0	3	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Mark2
IPI00420580.3	0	5	0	0	0	5	0	1.0	2.9	173.21%	0.0	#DIV/0!	mt-Nd2
IPI00137296.1	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Mtap7d1
IPI00463049.1	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Myadm
IPI00626233.3	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Nat10
IPI00124178.1	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Nckipsd
IPI00222526.4	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Ncoa5
IPI00874916.1	0	0	2	0	3	5	0	1.0	1.2	173.21%	1.5	91.65%	Necab2
IPI00653062.1	0	2	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Niban
IPI00798439.1	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	Nmt2
IPI00408986.6	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	Npc2
IPI00131905.1	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Npcd
IPI00474002.1	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Ntng1
IPI00134478.1	2	0	0	0	3	5	0	1.0	1.2	173.21%	1.7	173.21%	Oplah
IPI00856427.1	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Pars2
IPI00454053.6	0	0	5	0	0	5	0	1.0	2.9	173.21%	2.9	173.21%	Parva
IPI00465585.1	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Pdha2
IPI00126860.2	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Pds5b

IPI00132419.3	0	5	0	0	0	5	0	1.0	2.9	173.21%	0.0	#DIV/0!	Pign
IPI00110363.1	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Pip4k2c
IPI00134373.1	3	0	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Plcd1
IPI00169804.1	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Plcl2
IPI00874756.1	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Plekhg1
IPI00652958.1	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Plod1
IPI00399954.3	0	3	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Pnp1
IPI00107952.2	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Pofut1
IPI00133167.1	3	0	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Prickle2
IPI00229917.3	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Prkab2
IPI00752837.1	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Prosapip1
IPI00120165.1	0	2	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Prpf6
IPI00137594.2	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Psd
IPI00125830.1	0	0	3	0	2	5	0	1.0	1.7	173.21%	1.5	91.65%	Psen1
IPI00133047.1	3	0	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Psmb6
IPI00623629.2	0	3	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Ptp4a1
IPI00458057.3	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Ptpre
IPI00556768.1	0	5	0	0	0	5	0	1.0	2.9	173.21%	0.0	#DIV/0!	Rab8b
IPI00130018.1	0	0	2	3	0	5	0	1.0	1.2	173.21%	1.5	91.65%	Rabggta
IPI00170316.1	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Ranbp1
IPI00753701.3	3	0	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Rars2
IPI00319270.2	0	0	2	3	0	5	0	1.0	1.2	173.21%	1.5	91.65%	Rasgrf1
IPI00551412.1	0	0	2	3	0	5	0	1.0	1.2	173.21%	1.5	91.65%	Rasgrp2
IPI00405351.1	0	3	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Rbbp4
IPI00761714.2	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Rbm14
IPI00153101.3	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Rdh11
IPI00466989.2	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Rpl27
IPI00381160.3	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Rpl27a
IPI00132692.1	0	0	2	3	0	5	0	1.0	1.2	173.21%	1.5	91.65%	Rps25
IPI00118237.2	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Rraga
IPI00755513.2	0	0	0	2	3	5	0	1.0	0.0	#DIV/0!	1.5	91.65%	S100a10
IPI00118312.1	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Scfd2
IPI00222284.4	0	0	0	0	5	5	0	1.0	0.0	#DIV/0!	2.9	173.21%	Scn3a
IPI00856974.1	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Sdf2l1

IPI00134426.1	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Sec16a
IPI00271726.5	0	3	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Seh1
IPI00270788.1	0	0	5	0	0	5	0	1.0	2.9	173.21%	2.9	173.21%	Serpina3k
IPI00128363.1	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	Sf3b5
IPI00466436.4	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	Sh3bgrl2
IPI00111211.1	3	0	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Sigirr
IPI00340105.3	0	0	3	2	0	5	0	1.0	1.7	173.21%	1.5	91.65%	Sipa1l2
IPI00331228.3	0	2	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Smarca4
IPI00119227.1	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Specc1
IPI00222582.2	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Sphkap
IPI00120243.1	0	2	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Sptlc2
IPI00132096.3	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Stch
IPI00114869.1	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Stx5a
IPI00468516.3	2	0	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Svop
IPI00454042.2	0	2	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Sympk
IPI00131058.2	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Syt11
IPI00308852.4	0	2	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Tap2
IPI00226417.3	2	0	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Tmem201
IPI00331339.3	0	2	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Tmem85
IPI00652652.1	0	2	0	0	3	5	0	1.0	1.2	173.21%	1.7	173.21%	Trappc3
IPI00665637.3	0	0	0	5	0	5	0	1.0	0.0	#DIV/0!	2.9	173.21%	Trp53bp1
IPI00224128.7	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Tsc1
IPI00468996.2	5	0	0	0	0	5	0	1.0	2.9	173.21%	0.0	#DIV/0!	Tubg2
IPI00136252.3	2	3	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Uap1l1
IPI00775864.1	2	0	0	0	3	5	0	1.0	1.2	173.21%	1.7	173.21%	Ubl3
IPI00465884.7	0	3	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Ubl4
IPI00111489.9	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Uso1
IPI00122257.1	3	0	2	0	0	5	0	1.0	1.5	91.65%	1.2	173.21%	Usp15
IPI00459381.2	0	2	0	3	0	5	0	1.0	1.2	173.21%	1.7	173.21%	Vars
IPI00309704.1	3	0	0	2	0	5	0	1.0	1.7	173.21%	1.2	173.21%	Vps18
IPI00222037.3	0	0	2	3	0	5	0	1.0	1.2	173.21%	1.5	91.65%	Vps4a
IPI00120046.1	3	2	0	0	0	5	0	1.0	1.5	91.65%	0.0	#DIV/0!	Wasl
IPI00123487.3	0	0	0	3	2	5	0	1.0	0.0	#DIV/0!	1.5	91.65%	Zfml
IPI00462465.2	3	0	0	0	2	5	0	1.0	1.7	173.21%	1.2	173.21%	Zmpste24

IPI00109932.1	0	2	3	0	0	5	0	1.0	1.5	91.65%	1.7	173.21%	Zyx
IPI00555113.2	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	1110012J17Rik
IPI00312501.3	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	1110067D22Rik
IPI00230415.5	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	1500032L24Rik
IPI00222107.5	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	1700009N14Rik
IPI00421179.1	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	2310003L22Rik
IPI00222549.6	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	2310066E14Rik
IPI00122413.2	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	2310067B10Rik
IPI00122451.1	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	2610301G19Rik
IPI00471006.1	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	2610510H03Rik
IPI00755700.2	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	5830411G16Rik
IPI00672748.4	0	2	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	6430517E21Rik
IPI00458337.4	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Aatk
IPI00556893.3	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Abca12
IPI00108454.2	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Abcb10
IPI00458851.2	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Abcb9
IPI00122362.1	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Acot8
IPI00831153.1	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Acss2
IPI00135561.3	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Afg3l1
IPI00408894.3	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Alg1
IPI00406045.3	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Alg11
IPI00754562.1	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Amfr
IPI00226464.4	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Amt
IPI00758066.2	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Anln
IPI00322431.9	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Ap3b1
IPI00330155.4	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Aplp1
IPI00312468.5	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Arhgap21
IPI00117569.3	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Arhgap26
IPI00122831.5	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Asphd1
IPI00322562.5	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Atxn10
IPI00230124.5	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Atxn2l
IPI00420245.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	AU022870
IPI00408985.2	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	B230208H17Rik
IPI00874641.1	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Bcap29

IPI00123296.1	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Bcl2l13
IPI00131502.3	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Bpgm
IPI00132765.2	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	C530043G21Rik
IPI00857151.1	0	0	0	4	0	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Cbx3
IPI00356888.4	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Cdh15
IPI00118904.1	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Cdk5rap3
IPI00230119.5	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Chmp5
IPI00119124.2	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Cldnd1
IPI00466200.3	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Clec2d
IPI00308294.3	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Cnrip1
IPI00856927.1	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Col6a1
IPI00323819.3	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Coq6
IPI00130095.1	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Coq9
IPI00648998.3	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	Cox18
IPI00653254.2	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Ctbp2
IPI00230283.5	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Cyp2s1
IPI00221775.1	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Dak
IPI00265219.4	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Ddx3y
IPI00170145.5	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Ddx47
IPI00118739.3	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Dnahc8
IPI00459353.2	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Dnajb1
IPI00165716.4	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Dpp9
IPI00313824.2	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Dsp
IPI00162932.1	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	EG384525
IPI00226416.3	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	EG434394
IPI00480341.2	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	EG436081
IPI00123131.3	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	EG639162
IPI00663587.1	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	EG666274
IPI00173343.3	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Eif4g1
IPI00828628.2	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	Elfn2
IPI00469253.6	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Elp3
IPI00121149.1	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	ENSMUSG00000072758
IPI00464316.2	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	ENSMUSG00000078180
IPI00874334.1	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Epdr1

IPI00830153.1	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Ergic2
IPI00625328.2	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Etf1
IPI00121136.6	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Exoc6b
IPI00153400.2	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Fsd1
IPI00553826.3	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Fusip1
IPI00309365.3	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Fxn
IPI00353056.4	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Fxr2
IPI00127900.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Gcn1l1
IPI00758052.3	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Gfm2
IPI00223661.4	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Glra1
IPI00229392.4	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Glrx
IPI00223713.5	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Gorasp2
IPI00272033.3	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Gpc5
IPI00228054.2	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Gpr37
IPI00752027.1	0	0	0	4	0	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Gprin3
IPI00114399.1	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Gps1
IPI00331707.1	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Gpt2
IPI00622912.3	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Gsto1
IPI00136929.1	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Guf1
IPI00122174.4	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Hcfc1
IPI00323660.1	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Heatr1
IPI00130591.2	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Hnrnpa1
IPI00136701.1	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Hnrpf
IPI00228719.1	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Ilf3
IPI00187452.6	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Ipo9
IPI00466578.2	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Itpa
IPI00877221.2	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Jam2
IPI00130158.3	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Kcnj12
IPI00856218.1	0	2	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Klc4
IPI00129755.2	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Krt19
IPI00379334.6	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Lmtk2
IPI00626485.1	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	LOC100039571
IPI00405836.2	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	LOC100040021
IPI00457867.3	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	LOC100042335

IPI00651940.1	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	LOC100043806
IPI00410977.2	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	LOC100045157
IPI00128097.1	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	LOC100046821
IPI00461823.2	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	LOC100047406
IPI00127551.2	0	0	0	4	0	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	LOC100048210
IPI00125645.1	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	LOC751864
IPI00122858.1	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	Lrfn1
IPI00225008.2	0	2	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Lrfn4
IPI00120751.8	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Lzts1
IPI00319121.3	0	0	0	2	2	4	0	0.8	0.0	#DIV/0!	1.2	86.60%	Mal2
IPI00226025.5	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Man2a1
IPI00112947.1	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Mapk10
IPI00131368.3	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Mars2
IPI00169752.3	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Mettl7a
IPI00853982.1	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Mobkl3
IPI00229287.3	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Mospd2
IPI00135452.2	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	Mrpl11
IPI00348910.2	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Mrpl15
IPI00119299.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Mrpl28
IPI00112339.8	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Mrpl3
IPI00348414.4	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Mrpl38
IPI00111149.1	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Mrpl46
IPI00808296.1	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Mrpl49
IPI00876438.1	0	2	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	mt-Cytb
IPI00117375.1	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Mta2
IPI00849271.1	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Mtap
IPI00123852.6	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Mtif2
IPI00135969.2	0	0	0	4	0	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Myh3
IPI00468514.1	0	0	0	4	0	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Myo1g
IPI00173168.1	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Ndel1
IPI00850093.1	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Ndufa12l
IPI00116120.3	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Nme3
IPI00135660.5	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Nmt1
IPI00170079.4	0	0	0	4	0	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Nola1

IPI00222937.1	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Nploc4
IPI00850922.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Npr1
IPI00224653.5	0	0	0	2	2	4	0	0.8	0.0	#DIV/0!	1.2	86.60%	Nptx2
IPI00467796.5	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Nt5e
IPI00876524.1	0	2	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Nt5m
IPI00605670.4	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Nxf1
IPI00458502.2	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Oxsr1
IPI00621203.4	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Parc
IPI00229483.3	0	0	0	2	2	4	0	0.8	0.0	#DIV/0!	1.2	86.60%	Pcdh17
IPI00406117.1	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Pcdhga2
IPI00380495.4	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Pcnxl3
IPI00755338.2	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Pctk1
IPI00468602.3	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Pctk3
IPI00119787.4	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Pde8b
IPI00556735.2	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Penk1
IPI00266935.3	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Pigt
IPI00123518.1	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Plch2
IPI00653330.1	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Pnpo
IPI00652804.2	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Pofut2
IPI00130506.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Pon3
IPI00761515.2	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Ppp1r12c
IPI00377592.7	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Prickle4
IPI00226882.7	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Prkcbp1
IPI00128240.4	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Prmt1
IPI00124093.2	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Prmt5
IPI00118995.3	0	0	0	4	0	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Prpf4b
IPI00459582.3	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Pscd1
IPI00331140.3	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Psmf1
IPI00554855.2	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Ptprk
IPI00153761.2	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Rab24
IPI00648010.2	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Rab8a
IPI00406302.2	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Rabgef1
IPI00762889.1	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Rae1
IPI00315548.3	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Ranbp6

IPI00126892.12	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Rasgrp1
IPI00752295.2	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	Rcn1
IPI00154082.2	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	Reep1
IPI00132768.1	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Rexo2
IPI00311120.6	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Rftn1
IPI00459759.2	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Rhbdf1
IPI00169845.2	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Rimbp2
IPI00228083.4	0	2	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Rims2
IPI00222838.2	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Rpl13
IPI00420832.1	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Rpl36
IPI00677395.4	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Rps23
IPI00118235.1	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Sema4d
IPI00162942.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Sept1
IPI00408580.6	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Serpina1b
IPI00229801.5	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Sestd1
IPI00665641.2	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Sh2d5
IPI00132895.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Shroom2
IPI00311175.5	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Slc29a1
IPI00121341.1	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Slc7a11
IPI00315671.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Smad3
IPI00320480.3	0	0	0	2	2	4	0	0.8	0.0	#DIV/0!	1.2	86.60%	Smchd1
IPI00120709.1	0	2	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Smpdl3b
IPI00223538.2	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	Snx12
IPI00355228.3	0	2	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Spast
IPI00128230.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Sqstm1
IPI00116331.1	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	Strap
IPI00118499.1	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Stxbp2
IPI00128196.2	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Syn3
IPI00331175.5	0	0	2	0	2	4	0	0.8	1.2	173.21%	1.2	86.60%	Tacc2
IPI00420949.3	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Taldo1
IPI00310519.7	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Tbc1d4
IPI00404837.3	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Tbrg4
IPI00129404.1	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Tceb1
IPI00129249.2	0	0	0	4	0	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Tesc

IPI00229762.6	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Tex15
IPI00762403.1	0	4	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Tfg
IPI00312700.4	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Thoc2
IPI00387204.3	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Tk2
IPI00353962.3	0	0	2	2	0	4	0	0.8	1.2	173.21%	1.2	86.60%	Tmcc1
IPI00276866.1	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Tmem14c
IPI00131287.2	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Tnpo2
IPI00125683.1	0	2	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Tor1a
IPI00421052.1	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Trappc2
IPI00749735.1	4	0	0	0	0	4	0	0.8	2.3	173.21%	0.0	#DIV/0!	Txndc1
IPI00322463.3	0	0	0	0	4	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	Txnrd2
IPI00170083.1	0	0	0	4	0	4	0	0.8	0.0	#DIV/0!	2.3	173.21%	U2af1
IPI00720058.4	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Uba3
IPI00124414.8	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Uba6
IPI00129186.1	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Ube2i
IPI00751159.2	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Ube2k
IPI00123996.1	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Upf1
IPI00320608.3	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Usp19
IPI00131321.1	2	2	0	0	0	4	0	0.8	1.2	86.60%	0.0	#DIV/0!	Usp4
IPI00420389.2	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Vbp1
IPI00111931.1	0	0	4	0	0	4	0	0.8	2.3	173.21%	2.3	173.21%	Vps29
IPI00420243.2	2	0	0	0	2	4	0	0.8	1.2	173.21%	1.2	173.21%	Wdr48
IPI00229021.1	2	0	2	0	0	4	0	0.8	1.2	86.60%	1.2	173.21%	Wdr61
IPI00720016.2	2	0	0	2	0	4	0	0.8	1.2	173.21%	1.2	173.21%	Yme1l1
IPI00648579.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	1200015N20Rik
IPI00607918.3	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	2310028O11Rik
IPI00127351.2	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	2310057J16Rik
IPI00272381.5	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	2410002F23Rik
IPI00229884.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	2700094F01Rik
IPI00622936.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	2810407C02Rik
IPI00624086.4	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	4833409A17Rik
IPI00387602.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	6330527O06Rik
IPI00229636.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	6330569M22Rik
IPI00828325.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	6530401D17Rik

IPI00119980.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	A130022J15Rik
IPI00420564.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Aaas
IPI00470989.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	AB112350
IPI00421065.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Abca8b
IPI00118594.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Acot1
IPI00845638.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Acox3
IPI00621416.2	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Adam17
IPI00226790.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Akap10
IPI00131488.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Armc8
IPI00128336.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Arnt
IPI00227539.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Arnt2
IPI00606647.3	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Arpc5
IPI00134095.3	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	B630019K06Rik
IPI00330627.5	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	B830045N13Rik
IPI00121349.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	BC010304
IPI00115040.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Bcas3
IPI00222306.5	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Bmp2k
IPI00221663.5	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Bola1
IPI00132965.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	C030011O14Rik
IPI00828329.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	C920025E04Rik
IPI00136917.5	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Calcrl
IPI00229845.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Capn1
IPI00759878.2	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Car8
IPI00331170.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Cbln3
IPI00403650.2	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Cct6b
IPI00128362.2	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Cdc42se2
IPI00855172.1	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Cdh10
IPI00121007.3	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Cdh6
IPI00464335.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Centb2
IPI00117124.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Chmp6
IPI00109122.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Chmp7
IPI00122300.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Cldn5
IPI00403055.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Clpx
IPI00117146.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Clstn3

IPI00311344.3	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Cox8a
IPI00226243.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Ctage5
IPI00169485.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Ctdsp1
IPI00170032.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Cugbp1
IPI00652459.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Cyb5d2
IPI00130361.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	D17Wsu104e
IPI00828495.3	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Dchs1
IPI00227171.4	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Ddef2
IPI00620701.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Ddhd1
IPI00225719.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Dhrs13
IPI00471224.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Dnajc16
IPI00128378.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Dpys
IPI00551348.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Dynlt3
IPI00677454.2	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Edem1
IPI00130414.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Edg2
IPI00135207.3	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	EG433125
IPI00113146.4	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	EG434401
IPI00404079.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	EG666790
IPI00551498.2	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	EG668319
IPI00265211.3	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Eif3m
IPI00753875.2	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Eml2
IPI00153809.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	ENSMUSG00000078238
IPI00112639.3	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	ENSMUSG00000079260
IPI00266426.4	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Epha5
IPI00133257.1	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	F8a
IPI00626239.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Fabp3
IPI00223217.6	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Farsb
IPI00399798.1	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Fbl
IPI00222546.5	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Flii
IPI00831591.1	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Fmnl1
IPI00125505.2	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Fntb
IPI00626628.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Fundc1
IPI00346482.3	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	G3bp2
IPI00230660.5	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Galnt1

IPI00109330.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Gfod1
IPI00420344.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Gm50
IPI00117025.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Grasp
IPI00222555.5	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Gtf3c2
IPI00313878.3	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Hacl1
IPI00110729.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Idi1
IPI00110956.6	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Igbp1
IPI00761456.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Il1rapl1
IPI00134017.1	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Impad1
IPI00127238.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Iqgap2
IPI00331410.2	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Itga2
IPI00129394.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Itm2a
IPI00119893.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Kcmf1
IPI00133292.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Kcnc2
IPI00276430.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Kcnd1
IPI00265407.8	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Kcnj16
IPI00454115.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Kcnn2
IPI00119808.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Kcnt1
IPI00652058.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Kdr
IPI00115312.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Khdrbs1
IPI00480306.1	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Lmbrd2
IPI00122527.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Lmf1
IPI00317989.3	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Loh12cr1
IPI00652728.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Lrba
IPI00137938.7	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Map2k6
IPI00317844.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Mark4
IPI00310561.2	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Mesdc2
IPI00396739.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Mfn1
IPI00117534.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Mpz
IPI00316359.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Mras
IPI00321581.4	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Mrpl1
IPI00420136.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Mrpl24
IPI00317701.2	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Mrpl48
IPI00828218.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Mrps25

IPI00650038.2	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Mrps34
IPI00123400.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Mrps5
IPI00467124.2	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Myef2
IPI00463676.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Nars2
IPI00169862.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Nipbl
IPI00110852.4	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Notch1
IPI00874542.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Nrbp2
IPI00135390.2	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Numb
IPI00132575.3	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Nup35
IPI00112000.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Nvl
IPI00785417.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Odz3
IPI00856695.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Osbpl2
IPI00229624.4	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Osbpl9
IPI00224075.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	P2ry1
IPI00454050.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Paqr6
IPI00127867.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Pdcd11
IPI00653104.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Plekha7
IPI00331527.2	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Polh
IPI00467084.3	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Ppp1r1b
IPI00230586.3	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Prpf40a
IPI00127599.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Psme1
IPI00664886.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Rab39b
IPI00126992.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Ranbp17
IPI00330729.4	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Rbm15b
IPI00515432.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Reps2
IPI00138790.2	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Ric8
IPI00113239.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Rin1
IPI00469002.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Rpl32
IPI00116929.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	S100a11
IPI00653438.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Sbf2
IPI00378619.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Serinc3
IPI00112017.5	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Sfxn4
IPI00626977.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Sh3bgrl3
IPI00395213.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Slc24a4

IPI00461933.2	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Slc9a7
IPI00230153.3	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Smpd4
IPI00226815.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Smpdl3a
IPI00117117.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Spcs1
IPI00109257.1	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Srgap1
IPI00131954.1	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Stag2
IPI00352675.5	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Stim2
IPI00465770.2	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Supt16h
IPI00225153.3	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Supt6h
IPI00263505.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Supv3l1
IPI00756871.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Terf2
IPI00310669.3	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Tiprl
IPI00275050.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Tm7sf2
IPI00137347.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Tm9sf3
IPI00121851.2	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Tmem163
IPI00469095.5	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Tmem165
IPI00874318.1	0	3	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Tmem58
IPI00387189.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Tmem62
IPI00458698.2	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Tnpo1
IPI00153241.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Trhde
IPI00399953.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Vps11
IPI00310684.1	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Wdr81
IPI00652987.3	0	0	0	3	0	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Wnk1
IPI00134371.1	0	0	3	0	0	3	0	0.6	1.7	173.21%	1.7	173.21%	Wwox
IPI00399502.2	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	X99384
IPI00222412.3	3	0	0	0	0	3	0	0.6	1.7	173.21%	0.0	#DIV/0!	Xrn2
IPI00187240.1	0	0	0	0	3	3	0	0.6	0.0	#DIV/0!	1.7	173.21%	Yars
IPI00230353.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	0610009D07Rik
IPI00752798.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	1110007M04Rik
IPI00116302.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	1110039B18Rik
IPI00474174.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	1300010M03Rik
IPI00229859.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	1700021F05Rik
IPI00115580.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	1810044A24Rik
IPI00221581.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	1810046J19Rik

IPI00124127.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	2010300C02Rik
IPI00113411.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	2210010L05Rik
IPI00223738.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	2310061I04Rik
IPI00116191.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	2400003C14Rik
IPI00119305.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	2410002O22Rik
IPI00307892.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	2410016O06Rik
IPI00187443.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	2410018M08Rik
IPI00331514.6	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	2510003E04Rik
IPI00850758.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	2610027C15Rik
IPI00858255.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	2610029I01Rik
IPI00224682.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	2700045P11Rik
IPI00663323.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	2900064A13Rik
IPI00225072.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	3110002H16Rik
IPI00421171.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	3830431G21Rik
IPI00409045.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	4921511H13Rik
IPI00470003.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	4930407I10Rik
IPI00874389.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	4930471M23Rik
IPI00469509.5	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	5430437P03Rik
IPI00356667.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	5730472N09Rik
IPI00351890.8	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	9030617O03Rik
IPI00474144.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	9130014G24Rik
IPI00850659.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	A230106M20Rik
IPI00876328.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Aars2
IPI00109670.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Abca13
IPI00224733.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Abcc10
IPI00228580.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Abcd2
IPI00221980.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Abhd1
IPI00113617.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ablim3
IPI00128976.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Adam9
IPI00122594.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Adck5
IPI00848970.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Adcy7
IPI00311490.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ado
IPI00222459.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Adrm1
IPI00876212.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Adsl

IPI00874704.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Adss
IPI00874583.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Akt1
IPI00316989.6	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Aldh1l2
IPI00129479.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Alg5
IPI00830152.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Alg9
IPI00652029.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Amacr
IPI00830715.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ampd3
IPI00329896.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ankrd15
IPI00130046.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ankrd46
IPI00875482.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ap1gbp1
IPI00624550.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Apcdd1
IPI00136072.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Apeh
IPI00556880.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Api5
IPI00607023.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Araf
IPI00331610.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Arfgap3
IPI00109256.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Arhgef6
IPI00124568.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Arl6
IPI00749893.3	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Asahl
IPI00224528.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Ass1
IPI00342382.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Astn2
IPI00229721.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Atg7
IPI00122040.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Atp11a
IPI00310981.4	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Atpaf1
IPI00470177.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	AU040320
IPI00387505.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	B230380D07Rik
IPI00263874.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	B3galtl
IPI00331443.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	B3gat3
IPI00343214.5	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Bag2
IPI00480372.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Baiap3
IPI00119581.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	BC003331
IPI00669561.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	BC008155
IPI00111556.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	BC037034
IPI00153176.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Bcar1
IPI00453981.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Bclaf1

IPI00169731.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Bnip3
IPI00756400.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Braf
IPI00132020.6	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	C230081A13Rik
IPI00349970.6	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	C3
IPI00123445.6	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cacna1c
IPI00340519.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cacna1d
IPI00108978.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cacna1f
IPI00227880.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cacna1s
IPI00405125.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cald1
IPI00120495.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Camk1d
IPI00420678.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Car11
IPI00651935.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Car3
IPI00653179.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Cars2
IPI00467104.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Cbr2
IPI00331424.8	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cbs
IPI00761768.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ccar1
IPI00284213.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ccdc19
IPI00123377.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ccdc88a
IPI00320690.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ccdc93
IPI00352124.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Cd109
IPI00111519.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Cdc7
IPI00648660.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cdgap
IPI00128134.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cecr5
IPI00817011.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Cetn2
IPI00338998.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Chchd2
IPI00750014.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Chga
IPI00119239.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Chn2
IPI00329962.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Chordc1
IPI00314984.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Cnnm4
IPI00135088.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Col1a2
IPI00114252.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Col4a3
IPI00474888.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Commd3
IPI00133490.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cops7a
IPI00122521.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Coq3

IPI00126389.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Coq7
IPI00124245.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Coro2a
IPI00406794.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Coro7
IPI00874979.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Cotl1
IPI00134918.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cpeb2
IPI00229935.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cpeb3
IPI00405224.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cpne7
IPI00117289.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cpsf1
IPI00652919.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cpsf3l
IPI00128867.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Crtac1
IPI00310827.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Csmd2
IPI00165881.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Csnk1a1
IPI00117174.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Csnk1g2
IPI00128615.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Cstf3
IPI00114329.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ctps2
IPI00281670.6	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ctse
IPI00621963.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cx3cl1
IPI00116760.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cxcl12
IPI00471162.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Cybb
IPI00272230.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cyp4f14
IPI00378145.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Cyp4f15
IPI00338876.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	D1Bwg0212e
IPI00381649.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	D6Wsu116e
IPI00411115.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Dcc
IPI00378156.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Dctn3
IPI00124636.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Dctn6
IPI00123975.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Ddc
IPI00329840.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ddhd2
IPI00127267.4	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ddx10
IPI00340231.3	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Dennd3
IPI00108774.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Dennd4c
IPI00379202.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Dgkg
IPI00420259.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Dgkh
IPI00378268.5	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Dgkq

IPI00762316.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Diablo
IPI00230191.5	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Diras1
IPI00321978.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Disp2
IPI00379245.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Dnajb12
IPI00623205.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Dnase1l3
IPI00316682.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Dock11
IPI00654934.9	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Dolk
IPI00387418.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Dync2h1
IPI00323177.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	E330009J07Rik
IPI00118835.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ece2
IPI00387288.3	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Efhc1
IPI00228115.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Efnb3
IPI00622961.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	EG245405
IPI00135559.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	EG384179
IPI00136626.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	EG432768
IPI00749698.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	EG434782
IPI00378187.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	EG546164
IPI00126204.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	EG546797
IPI00154045.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	EG625281
IPI00265352.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	EG625716
IPI00137831.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	EG666360
IPI00136098.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	EG666668
IPI00127501.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	EG668668
IPI00120318.7	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Eif2s3x
IPI00867862.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Eif5a2
IPI00453582.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Eif5al3
IPI00750061.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Elavl3
IPI00229775.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Enpp5
IPI00223466.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	ENSMUSG00000020576
IPI00454010.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	ENSMUSG00000049235
IPI00315581.4	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	ENSMUSG00000063875
IPI00114285.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	ENSMUSG00000066530
IPI00113686.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	ENSMUSG00000067124
IPI00187493.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	ENSMUSG00000069379

IPI00122245.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	ENSMUSG00000073486
IPI00380307.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	ENSMUSG00000074547
IPI00460714.5	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Epha2
IPI00330250.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Epm2aip1
IPI00753053.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Evl
IPI00169475.6	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ewsr1
IPI00338388.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Exdl2
IPI00621791.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Exoc6
IPI00130664.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Exosc10
IPI00556777.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Faf1
IPI00225294.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Faim2
IPI00421209.3	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Fars2
IPI00224505.7	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Farsa
IPI00227871.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Fbxl20
IPI00652098.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Fbxo21
IPI00408103.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Fhit
IPI00849652.6	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Filip1
IPI00875162.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Fn3k
IPI00226955.3	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Fsip2
IPI00316314.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Fuk
IPI00132819.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Fundc2
IPI00113410.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Fus
IPI00116138.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Fut8
IPI00230623.8	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gab1
IPI00869475.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gabra4
IPI00112448.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gabrg1
IPI00317590.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Galnt2
IPI00882003.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gatad2b
IPI00131357.7	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gclm
IPI00137735.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gdpd5
IPI00123379.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Gfer
IPI00411022.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Gipc1
IPI00762434.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Gk2
IPI00114333.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gldc

IPI00453742.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Gm106
IPI00676574.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Gm1337
IPI00331321.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gm941
IPI00649267.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Gna-rs1
IPI00153842.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Gng5
IPI00228616.5	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Golgb1
IPI00229543.3	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Gosr2
IPI00265761.6	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Gp5
IPI00320716.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gpam
IPI00121067.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gpr89
IPI00420261.5	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Gpt1
IPI00553777.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Grk6
IPI00128441.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Grsf1
IPI00226073.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Gstm6
IPI00606638.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gtf3c1
IPI00222208.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Gtpbp10
IPI00353927.15	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Gtpbp3
IPI00119202.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gusb
IPI00124115.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gvin1
IPI00605227.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Gys1
IPI00133208.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	H1fx
IPI00115850.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	H2-D1
IPI00882081.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	H2-T23
IPI00380742.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Hace1
IPI00132397.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Hap1
IPI00323674.6	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Hectd1
IPI00762129.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Hecw2
IPI00118929.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Hgs
IPI00308971.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Higd1a
IPI00311803.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Hmg20a
IPI00463186.6	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Hmgb1
IPI00225317.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ifi203
IPI00112446.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ifitm3
IPI00131062.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ift172

IPI00319956.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Igsf9b
IPI00831467.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Impact
IPI00337976.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Impdh1
IPI00133451.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Inadl
IPI00227669.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ints1
IPI00227657.6	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ipo4
IPI00471243.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Isca2
IPI00114801.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Iscu
IPI00755905.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Islr
IPI00317604.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Islr2
IPI00331016.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Itgb2
IPI00128880.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Jam3
IPI00315517.12	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Kcnb1
IPI00323816.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Kcnh1
IPI00129548.5	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Kcnk1
IPI00120671.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Kif7
IPI00123635.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Krit1
IPI00420535.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Krt20
IPI00273778.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lace1
IPI00674241.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Larp1
IPI00420237.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Larp7
IPI00320605.3	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Las1l
IPI00311948.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lgals1
IPI00405760.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lgtn
IPI00122250.4	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Lifr
IPI00606760.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lima1
IPI00127068.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Limd1
IPI00750388.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lmbrd1
IPI00622727.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	LOC100039174
IPI00453847.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	LOC100039503
IPI00395040.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	LOC100040220
IPI00331602.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	LOC100041120
IPI00135598.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	LOC100042424
IPI00128778.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	LOC100042480

IPI00118979.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	LOC100042570
IPI00463074.6	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	LOC100042856
IPI00268475.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	LOC100043926
IPI00338561.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	LOC100045668
IPI00117932.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	LOC100047670
IPI00877307.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	LOC100048488
IPI00673176.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	LOC665180
IPI00467814.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	LOC675985
IPI00454140.5	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lpl
IPI00311767.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lrrc1
IPI00675985.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Lrrc16
IPI00229553.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lrrc40
IPI00265371.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lrrc4c
IPI00124326.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Lrrfip2
IPI00458765.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Lrrtm2
IPI00320503.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lrrtm3
IPI00475311.5	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Luzp1
IPI00120769.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lyrm4
IPI00120089.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Lyst
IPI00311329.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Lztfl1
IPI00556717.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Lzts2
IPI00319858.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mad1l1
IPI00468189.6	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Magi3
IPI00453817.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Man1b1
IPI00123747.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Man2b1
IPI00109242.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Map1lc3a
IPI00222921.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Map3k13
IPI00131209.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Map6d1
IPI00329844.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mboat2
IPI00556692.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mboat5
IPI00875319.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mcat
IPI00406377.3	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Mdc1
IPI00124499.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Memo1
IPI00756854.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Mfsd4

IPI00344088.6	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Mical3
IPI00132122.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mipep
IPI00340860.5	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Mkl1
IPI00137433.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mmab
IPI00420541.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mms19
IPI00126253.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Moap1
IPI00776208.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mon1a
IPI00122350.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mrpl2
IPI00468902.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mrpl21
IPI00120455.9	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mrpl22
IPI00134881.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Mrpl39
IPI00857521.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Mrpl53
IPI00112053.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mrps18b
IPI00760011.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mrps2
IPI00405437.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Mrps35
IPI00876491.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mterfd3
IPI00849293.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Mtmr9
IPI00112096.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mto1
IPI00754976.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Mug1
IPI00798550.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Mxra8
IPI00310333.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Myh6
IPI00454045.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Myh8
IPI00762232.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Myl4
IPI00111254.8	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Myl6b
IPI00480398.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Myo5c
IPI00133374.5	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ncor1
IPI00271869.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Neto2
IPI00875883.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Neu3
IPI00621613.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Nf2
IPI00136912.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Nlrp1b
IPI00855186.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Nme7
IPI00776292.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Nola3
IPI00850545.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Nolc1
IPI00119695.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Nostrin

IPI00776104.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Notch2
IPI00874692.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Nqo1
IPI00467059.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Nrn1
IPI00323182.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Nsfl1c
IPI00622783.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Nt5c2
IPI00130670.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Nucb2
IPI00474487.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Nudc
IPI00474856.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Nudt12
IPI00761421.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Nudt2
IPI00874935.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Nup153
IPI00229990.7	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Nup88
IPI00757968.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ofd1
IPI00136653.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	ORF61
IPI00605077.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Os9
IPI00624735.4	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	OTTMUSG00000010806
IPI00126146.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	OTTMUSG00000017637
IPI00133317.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	OTTMUSG00000018330
IPI00750416.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	P4ha1
IPI00225633.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Pa2g4
IPI00671512.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Pag1
IPI00761487.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Paip1
IPI00656221.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Panx2
IPI00314919.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Paqr9
IPI00463761.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Pcbp3
IPI00457620.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Pcm1
IPI00845851.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Pcnx
IPI00119923.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Pcsk1
IPI00227851.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Pctk2
IPI00330802.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Pde4d
IPI00124692.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Pdia5
IPI00469577.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Pef1
IPI00121842.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Pex16
IPI00121758.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Pex3
IPI00875427.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Pgam5

IPI00470138.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Phf3
IPI00309419.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Phip
IPI00659860.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Phka1
IPI00313492.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Phldb1
IPI00229726.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Pik3c2a
IPI00330437.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Plekhb1
IPI00113427.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Pnpla7
IPI00458573.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Pogz
IPI00315948.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Poldip3
IPI00400411.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Polr2b
IPI00124052.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Ppfibp1
IPI00461857.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ppp6c
IPI00453815.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Prcp
IPI00323130.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Prkaa2
IPI00471277.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Prkcd
IPI00221932.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Prkg2
IPI00114044.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Prpf3
IPI00468346.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Prpf31
IPI00224294.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Prss2
IPI00785267.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Prune
IPI00137439.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Psmb7
IPI00132644.4	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Psme2
IPI00816921.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Psph
IPI00119807.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Ptgds
IPI00281011.7	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Ptprb
IPI00118096.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ptprt
IPI00279494.6	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Puf60
IPI00229893.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Pxn
IPI00880411.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rab11fip1
IPI00118413.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rab11fip2
IPI00226952.4	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Rab23
IPI00114407.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rab7l1
IPI00221741.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rab9
IPI00380082.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Rabgap1

IPI00342938.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Rad21
IPI00345199.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rapgef4
IPI00751362.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rapgef6
IPI00118545.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Rbm16
IPI00113528.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rbm25
IPI00755262.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Rbm3
IPI00464322.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rbm42
IPI00466640.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rbmxrt
IPI00116077.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Reps1
IPI00135579.4	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Rgs9
IPI00112007.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rhag
IPI00131606.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rhbdl3
IPI00464145.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rheb
IPI00462562.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rhoq
IPI00406624.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Rims3
IPI00228025.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rnaset2b
IPI00460741.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Rnf180
IPI00880850.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Rnf40
IPI00229906.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Robo1
IPI00331708.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Rpl13a
IPI00808098.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Rpl22
IPI00112355.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Rpl30
IPI00135106.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Rps15a
IPI00606030.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Rps6
IPI00117735.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Rps6ka2
IPI00117357.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Rps6ka3
IPI00122175.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rrp12
IPI00116877.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rtn4r
IPI00353237.8	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Rundc3a
IPI00132412.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Ryr3
IPI00134011.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Safb2
IPI00133289.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Samhd1
IPI00223272.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Saps1
IPI00798614.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Sart1

IPI00111228.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sc4mol
IPI00109740.3	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Scamp4
IPI00134112.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Scn8a
IPI00315584.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sdccag1
IPI00162769.4	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Sdhd
IPI00115056.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sec13
IPI00129020.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Selenbp2
IPI00187402.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Serpinc1
IPI00462925.5	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Sfrs4
IPI00342407.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sgce
IPI00858168.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Sgtb
IPI00137231.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sh3bp4
IPI00719897.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sh3gl3
IPI00109178.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sh3glb1
IPI00117944.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Siglec1
IPI00124684.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sil1
IPI00775936.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sin3a
IPI00274131.7	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Sirt3
IPI00222480.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Skiv2l
IPI00131988.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Slc2a13
IPI00122232.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Slc2a8
IPI00133750.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Slc38a2
IPI00225244.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Slc38a5
IPI00118193.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Slc6a7
IPI00124699.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Slitrk5
IPI00653270.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Smad2
IPI00318548.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Smad9
IPI00462482.3	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Smarca2
IPI00453622.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Smarcc1
IPI00222538.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Snap29
IPI00337053.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Snrpa
IPI00125135.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Snx13
IPI00411116.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Snx3
IPI00118196.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Snx5

IPI00131193.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Son
IPI00128261.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Spa17
IPI00153094.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Spata18
IPI00322440.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Sphk2
IPI00113257.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Spock1
IPI00467045.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Srp54c
IPI00131227.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Srpr
IPI00471341.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Stambp
IPI00118575.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Stk11ip
IPI00420919.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Stk32c
IPI00223621.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Stmn2
IPI00222753.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Stx18
IPI00311369.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Stx8
IPI00776049.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Sub1
IPI00831256.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Supt5h
IPI00460291.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Syne2
IPI00345097.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Taok1
IPI00117062.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tarsl2
IPI00124893.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tbc1d17
IPI00123223.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Tbc1d22b
IPI00128071.7	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tbc1d5
IPI00132938.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tbc1d9b
IPI00556709.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tbcb
IPI00380895.7	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Tbcd
IPI00130653.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Tcerg1
IPI00420483.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tec
IPI00265380.4	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Tekt1
IPI00115701.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Thbs1
IPI00404693.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Thoc4
IPI00318901.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Thoc5
IPI00261638.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Thrap3
IPI00224549.3	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Tjp3
IPI00622850.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tm4sf19
IPI00137647.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tmed5

IPI00312759.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Tmem109
IPI00130353.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tmem132e
IPI00222180.7	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tmem160
IPI00467223.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Tmem16h
IPI00313525.5	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tmem32
IPI00274795.4	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tmem55a
IPI00318238.5	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tmem63b
IPI00330551.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tmem66
IPI00347275.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tmem87a
IPI00649972.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tmem87b
IPI00230513.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tns3
IPI00223269.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tomm7
IPI00321497.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tpcn1
IPI00113389.5	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tpo
IPI00128873.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Trappc6b
IPI00719857.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Trim3
IPI00875526.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Trim46
IPI00125450.3	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Trnt1
IPI00312172.5	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Trp53i11
IPI00135143.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Trpc3
IPI00117252.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Tsg101
IPI00110931.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Tsn
IPI00623259.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tspan15
IPI00129240.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ttf1
IPI00123333.5	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tusc3
IPI00133008.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Txndc15
IPI00227110.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Tyk2
IPI00322561.4	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ube2d2
IPI00467908.5	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ube2d3
IPI00153206.2	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ube2g2
IPI00170242.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ube4a
IPI00336198.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Ubn1
IPI00111183.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Ubtd2
IPI00117332.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Uchl3

IPI00263899.6	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Uchl4
IPI00263549.5	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Unc13c
IPI00880917.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Unc84b
IPI00461621.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Upf2
IPI00387232.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Usf1
IPI00112320.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Usp24
IPI00114819.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Usp30
IPI00663537.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Usp31
IPI00122065.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Vamp4
IPI00465860.2	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Vars2
IPI00459468.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Vps24
IPI00123509.4	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Vps33b
IPI00331266.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Vps39
IPI00227759.2	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Vps41
IPI00137524.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Vps4b
IPI00121076.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Vps52
IPI00137943.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Wbp11
IPI00314153.4	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Wbp2
IPI00136555.1	0	2	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Wdr18
IPI00330624.1	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Wdr20a
IPI00469331.2	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Wdr33
IPI00377908.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Wdr77
IPI00608012.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Wrnip1
IPI00321884.1	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Wwc1
IPI00387422.3	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Zdhhc8
IPI00123783.2	0	0	2	0	0	2	0	0.4	1.2	173.21%	1.2	173.21%	Zer1
IPI00230074.7	0	0	0	0	2	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Zfp365
IPI00169473.1	0	0	0	2	0	2	0	0.4	0.0	#DIV/0!	1.2	173.21%	Zfp512
IPI00849568.1	2	0	0	0	0	2	0	0.4	1.2	173.21%	0.0	#DIV/0!	Zzef1

Supplementary Table 2. Minimum Information About a Proteomics Experiment

MIAPE v2.24 2008-05-28	
1. General Features – (a) Global Descriptors	
Date Stamp	2009-03-18
Responsible Person	Mike Scott
Instrument Manufacturer, Model	Thermo Scientific, LTQ XL
Customizations	None
1. General Features – (b) Control and Analysis Software	
Software Name and Version	Xcalibur v2.0.7
Switching Criteria	30000 ions for full MS1
Isolation Width	2Da
Location of Parameters file	*C:\Xcalibur\system\LTQ\msx\master.LTQ**
2. Ion Source	
Supply Type	Spray fed by liquid chromatography; flow at 250nL/min
Interface Manufacturer, Model, Catalog Number	Nanospray Source built by TSRI instrument shop
Sprayer type, coating, manufacturer, model, and catalog number	In-house 100um I.D. Column with 5um tip
Relevant voltages: tip, cone, acceleration	2.76kV spray voltage, 44V capillary voltage, -64V at gate lens
In-source dissociation?	Not Applicable (N/A)
3. Post-source component	
Final MS Stage Achieved	MS2
Gas Type and pressure for CID in	Helium gas, linear trap, 8.2 nBar
Collision Energy	35.0
Detector Type	Electron Multiplier
Detector Sensitivity	-1390V
4. Spectrum and Peak List Generation and Annotation – (a) Spectrum Descriptions	
Location and source of raw files including file name and type	*C:\Xcalibur\data* RAW files
MS level for spectra	MS2
Ion Mode	Positive
Precursor m/z and charge with the full mass spectrum for that peak	*in the raw data*
4. Spectrum and Peak List Generation and Annotation – (b) Peak List Generation	
Parameters triggering the generation of peak lists from raw data, where appropriate	N/A
Acquisition number from the RAW file	N/A
Smoothing	N/A
Background threshold	1000 counts
S/N estimation	N/A
% peak height for centroiding	N/A
Charge state calculation	calculated by SEQUEST in data processing
4. Spectrum and Peak List Generation and Annotation – (c)Quantitation	
Experimental Protocol	Label-free spectral counting using the software PatternLab for Proteomics. BMC Bioinformatics 2008, 9:316.
Number of combined samples and MS runs analyzed	6
Quantiation Approach	Spectral counting
Normalization Technique	Total Spectral Counts signal normalization
Location of quantitation data	TSRI MEM Torbett Lab

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