

DIA-Based Proteomics Reveals the Protective Effect of Quercetin against Cyclophosphamide-Induced Testicular Toxicity in Mice

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Submitted: 2023, July 20; Accepted: 2023, Sep 26; Published: 2023, Dec 19

Citation: Fang, C., Wang, F., Ye, Y. (2023). DIA-Based Proteomics Reveals the Protective Effect of Quercetin against Cyclophosphamide-Induced Testicular Toxicity in Mice. *J Gene Engg Bio Res*, 5(3), 251-391.

Abstract

Cyclophosphamide (CP) is a common employed immunosuppressive and anti-neoplastic alkylating antineoplastic drug with documented male reproductive harm. Quercetin, a widely distributed anti-oxidant flavonoid, has been demonstrated to have a variety of biological roles, including tissue-protective properties. Here, administration of quercetin alleviated the CP-induced damage to the testicles, as evidenced by improvements in body weight, testis and epididymis index, serum testosterone concentration, the pathomorphological of testis, and reduced apoptosis in testicular cells. Moreover, Proteomic data indicated that all DEPs were classified into five categories. Cluster 1 (C1) and C4 were regulated by cyclophosphamide and quercetin. KEGG pathway analyses showed that mTOR signaling pathways and Proteasome were the most abundant pathways in C1 and C4, respectively. In the protein-protein interaction (PPI) network analysis, quercetin inhibits the expression of GSK3B, EIF4E, and RPS6KA2 proteins in CP-induced spermatogenesis failure in mice via the mTOR signaling pathway, protecting against spermatogonia injury. On the other hand, quercetin alleviates spermatogonia injury by stimulating the production of Rps23, Rpl8, Rps11, and Mrps17 proteins in CP-induced testis injury in mice via the pathways of Proteasome. Our results have showed that quercetin has a putative protective effect via modulating the pathways of mTOR and Proteasome in CP induced testis injury.

Keywords: Cyclophosphamide, Quercetin, Testis Toxicity, MTOR Signaling Pathway, Proteasome

1. Introduction

Cyclophosphamide (CP) is an extensively utilized anti-neoplastic agent that is successful against a broad range of human malignancies, including leukemia, several types of lymphomas, as well as some solid tumors [1,2]. Notwithstanding the pharmacological efficacy of CP, the most significant drawback of CP treatments is damage to healthy tissue, which results in many organ dysfunction, particularly reproductive injury [3]. Hepatic cytochrome P450 is responsible for the activation of this chemical, which takes place through the C4-hydroxylation [4]. The 4-hydroxy-CP that is produced then travels through a functionalization to produce aldonophosphamide, which is then proceeded by the formation of active forms like phosphoramide acrolein and mustard. The phosphoramide mustard component of this chemical is linked to the substance's anti-neoplastic properties, whereas the acrolein component is associated with its harmful adverse effects [5]. Gonadotropin output has been disrupted in male patients receiving CP, and decreased testosterone levels have been related to testicular injury [6]. In order to minimize such side effects, CP is general-

ly used in conjunction with a number of different detoxing and protecting drugs, which either lessen or prevent the unfavorable toxic effects that CP has. Antioxidant drugs, including glutamine, S-allylcysteine, melatonin, squalene and Lycium barbarum have protective effects against CP-caused damage. Therefore, a mixture of the medicine and a potent antioxidant may be effective for reducing the male reproductive negative side effects of CP [7-11]. Quercetin is a flavonoid that is found in plants and acts as an anti-oxidant. Fruits, vegetables, and berries are common food sources of this component [12]. Buckwheat, onions, plums, mangos, peppers, and different berries are significant natural sources of quercetin and its derivatives. A large number of earlier studies have demonstrated that quercetin, when administered in the appropriate amounts, can engage in a wide range of biological actions, including the treatment of infertility, neuroprotection, anti-allergy, anti-oxidation, anti-inflammatory and immunomodulatory processes, as well as anti-microbial, anti-cancer, and anti-inflammatory effects [13-19]. Previous research has demonstrated that quercetin has the ability to improve sperm functional parameters and pro-

tect testicular tissue from histological damage by suppressing the expression of caspase-3 activity [20]. Quercetin reduced the detrimental effects of cadmium buildup in the testis by increasing testicular antioxidant, Bcl-2 protein levels, sperm count, motility and viability, and sex hormones [21]. By inhibiting the expression of Bax, caspase-8, caspase-9, p53, Fasl, and Fas in adult male mice, quercetin was able to restore sperm parameters [22]. Additionally, research on animals showed that quercetin effectively averted cadmium-induced testicular dysfunction by decreasing reactive oxygen species (ROS) levels and the protein expression of LC-3II and p62 in rat testes [23]. These results imply that quercetin may be crucial in maintaining and restoring male fertility.

In this study, we investigated the impact that exposure to CP on the testis, as well as the protective role quercetin performs against CP-induced testicular damage. Because the molecular mechanisms by which quercetin protects the testes are poorly understood, we used DIA-based quantitative proteomics technique to examine detailed protein profiles from testis tissue in an attempt to further understand the molecular underpinnings of quercetin's protective actions against testis damage brought on by CP in adult mice.

2. Materials and Methods

2.1 Animals and Treatments

Adult male Kunming mice (18-22g) were purchased from Chengdu Dossy Experimental Animals CO., Ltd. in Chengdu, China, and then reared at the Animal Center of Chengdu University of Traditional Chinese Medicine in Chengdu, China. All animals were placed in a cage with controlled airflow, a 12-hour light/12-hour dark cycle, a fixed room temperature of 22°C, and clean food and drink. Our Institutional Animal Ethics Committee ensured that all animal protocols were conducted in accordance with the guidelines and guidelines that were in place at the point they were approved. These protocols were given approval by the Animal Care Committee at Chengdu University of Traditional Chinese Medicine. (Ethics committee approval document number: 20211309A).

Methods 30 adult male mice were randomized into three groups: normal control (Ctrl group, n=10), CP only (CP group, n=10), or CP and quercetin (Que group, n=10). Daily intraperitoneal injections of normal saline (NS) were provided to the control animals. To cause testis damage, 50 mg/kg/d of CP was injected into male mice (the model) every day for 5 days using NS as the carrier. NS was given to both the Ctrl group and the CP group throughout the course of the following 30 days. The Que group was given a quercetin dose of 80 mg/kg/d by irrigation in the stomach for a period of 30 days. After administering the therapy, all mice were euthanized by exsanguination while under the effects of isoflurane anesthesia. Removal and weighting of the testis and epididymis, the gonadal index was determined by employing the following formula: Gonadal index (mg/g) = testicular or epididymal weight (mg) / body weight (g). The left testis was divided into two half. Tissue from one half of the testis was preserved in 4% paraformaldehyde for histological analysis, while tissue from the other

half was preserved in 3% glutaraldehyde for transmission electron microscopy (TEM). The right testes of mice maintained at -80°C until they were used.

2.2 Histologic Evaluation

We randomly chose 3 testes from each group for pathologic examination. The light microscope was used to characterize testicular tissues after they had been sectioned at a thickness of 5µm and stained with hematoxylin and eosin (H&E).

2.3 Transmission Electron Microscopy

The testicular tissue was first fixed in 3% glutaraldehyde, then postfixed in 1% osmium tetroxide, dried in a succession of acetone, infiltrated with Epoxy 812 over an extended period of time, and finally embedded. The testicular tissue was first fixed in 3% glutaraldehyde, then postfixed in 1% osmium tetroxide, dried in a succession of acetone, infiltrated with Epoxy 812 over an extended period of time, and finally embedded.

2.4 Evaluation of the Level of Serum Sex Hormone

The assay is based on the fundamental idea of the double-antibody sandwich technique, with Mouse E2 ELISA kit, Mouse FSH ELISA kit, Mouse LH ELISA kit, Mouse P4 ELISA kit, Mouse T ELISA kit (Shanghai hengyuan biotechnology Co.,LTD). Spectra-MAX Plus384 (CA, USA) was used to quantify color generation at 450 nm.

2.5 DIA Mode for Proteomic Analysis

The tissues were first placed in a protein lysis solution (8M urea, 1% SDS), which contained an adequate protease inhibitor to block the activity of the protease, and then the combination was processed by an elevated tissue grinding machine for three separate sessions of 40 s each. The solution was then vortexed for 5-10 s every 5 min while being cultured on ice for 30 minutes. The content of protein in the supernatant was measured using the BCA Protein Assay Kit (Thermo Scientific) after centrifugation at 16000 g and 4°C for 30 min. The kit's instructions were followed when measuring the protein content.

A total of 100 µg protein were reconstituted in triethylammonium bicarbonate buffer (TEAB), which had a final concentration of 100 mM. Tris(2-carboxyethyl)phosphine (TCEP), with a final concentration of 10 mM at 37°C for 60 min, was used to decrease the combination. Iodoacetamide (IAM), with a final concentration of 40 mM at room temperature for 40 min in the dark, was used to alkylate the mixture. Trypsin was added at a protein mass to trypsin ratio of 1:50 and kept at 37 °C Celsius for one night. After being trypsin-digested and vacuum-dried, an adequate amount of the peptides from each sample pool was then re-suspended in UPLC loading buffer (Phase A: 2% acetonitrile, pH 10; Phase B: 80% acetonitrile, pH 10). In order to get a greater level of proteomic insight, the mixed peptides were separated into their own distinct fractions by means of Vanquish Flex binary UHPLC chromatography (Thermo, USA) using an Acuity UPLC BEH

C18 Column (1.7 m, 2.1 mm 150 mm, Waters, USA).

Start taking an equivalent amount of each sample pool's trypsin-digested peptides and suction dry them before rehydrating them in UPLC loading buffer (Phase A: 2% acetonitrile, pH 10; Phase B: 80% acetonitrile, pH 10). To increase proteomic depth, the blended peptides were separated using Vanquish Flex binary UHPLC chromatography (Thermo, USA) with an Acquity UPLC BEH C18 Column (1.7 μ m, 2.1mm 150 mm, Waters, USA). From the mixed sample, 28 fractions were extracted. In brief, the C18-reversed phase column (75 μ m x 25 cm, Thermo, USA) was equilibrated with solvents A (2% ACN, 0.1% formic acid) and solvents B (80% ACN, 0.1% formic acid). At a flow rate of 300 nL/min, the tryptic peptides were separated. After being redissolved in spectrometry loading buffer (2% ACN with 0.1% formic acid), the peptides were subjected to online nano flow liquid chromatography tandem mass spectrometry analysis. This analysis was carried out on an EASY-nLC system (Thermo, USA) that was connected to a Q Exactive HF-X quadrupole orbitrap mass spectrometer (Thermo, USA) via a nanoelectrospray I.

In order to automatically switch between full scan MS and MS/MS acquisition, the Q Exactive HF-X instrument was run in the data-dependent acquisition mode (DDA). The investigation of full scan MS spectra, ranging from 300-1500 m/z, was carried out on the Orbitrap, which has a resolution of 60000. The aim for the automatic gain control, which was set at 3e6, and the maximum fill time was set at 50 ms. The top 20 most intense precursor ions were then chosen to be placed in the collision cell in order to undergo fragmentation through higher-energy collision dissociation (HCD). The automatic gain control (AGC) target was set at 1e6, and the maximum fill time was set to automatical. The MS/MS resolution was set at 30000.

In order to automatically switch between full scan MS and MS/MS acquisition, the Q Exactive HF-X instrument was run in the DIA mode. After acquiring the survey of full scan MS spectra (m/z 300-1500), all of the precursor ions were put into the collision cell to be fragmented using higher-energy collision dissociation (HCD). DIA was carried out with a variable isolation window, each window overlapping the previous one by 1 m/z, and there were a total of 40 windows.

ProteomeDiscoverer (Thermo Scientific, Version 2.4) was used to perform an analysis on the DDA data files, and the results were compared to the uniprot Mus musculus database. The following were the MS/MS search criteria: MS mass tolerance of 10 ppm and MS/MS mass tolerance of 0.05 Da Tolerance, trypsin as the enzyme, with two missed cleavages permitted, carbamido methylation of cysteine as a fixed modification, and oxidation and acetyl as dynamic modifications, respectively. For protein identification, only proteins with at least one unique peptide were employed.

2.6 Bioinformatics Analysis

R packages were utilized to carry out principal component analysis on the quantified proteins in order to find any link that may exist between the testis tissue found at varying elevations. DEPs were identified when the fold change (FC) was the thresholds of fold change (>1.2 or <0.83 and p-value < 0.05 (Student's t test). The proteins were annotated against the Gene Ontology (GO) and the Kyoto Encyclopedia of Genes and Genomes (KEGG) utilizing the String v10.5 database in order to discover the functions of the proteins.

3. Results

3.1 Quercetin Improved Body Weight, Testis and Epididymis Index, and Testosterone Secretion in CP-Induced Mice

The body weight of mice is a measure of their level of development, also testis and epididymis are the primary reproductive organ in male mice. In order to represent the spermatogenesis function on the CP-induced hazardous effect of male mouse reproduction, body weight, testis index, and epididymis index can be monitored. The body weights of mice were decreased after treatment with CP for 5 days (Fig. 1A). When mice were given quercetin, their body weights were greatly recovered (Fig. 1A), suggesting that quercetin may reduce the weight loss induced by CP. The testis and epididymis indexes of mice given quercetin increased as compared to the Mod group, demonstrating that quercetin attenuated the decline in testis and epididymis indexes that occurred in the groups of Mod and Que receiving CP (Fig. 1B-C).

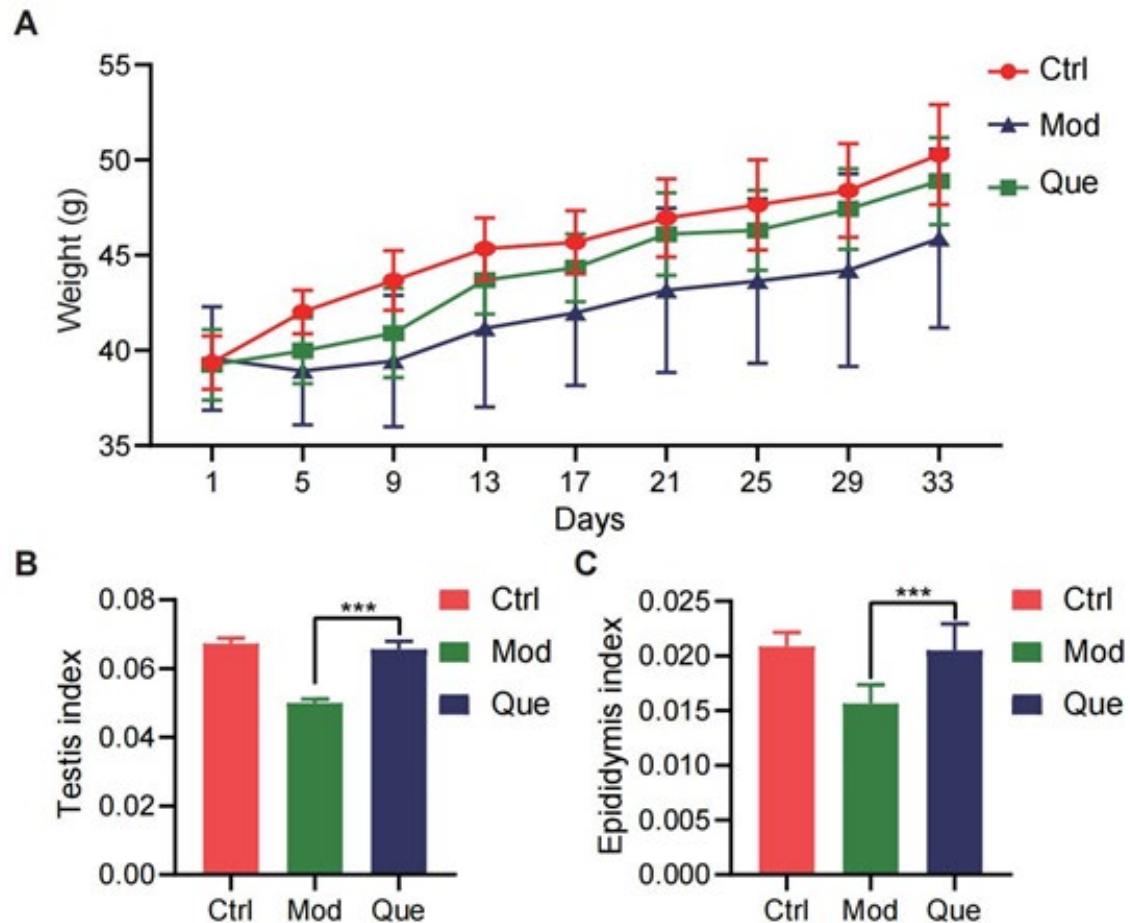


Figure 1: Effects of Quercetin on Body Weight And Gonadal Organ Index of CP-Treated mice

(A) Effects of quercetin on body weight of CP-treated mice. (B) Effects of quercetin on testis index of CP-treated mice. (C) Effects of quercetin on epididymis index of CP-treated mice. Data were expressed as the mean \pm SD for three independent experiments. ***P < 0.001 vs. Mod.

The equilibrium of serum sex steroid hormone affects reproduction. To find out if quercetin had any advantages for maintaining sex steroid hormone, serum sex steroid hormone levels, including testosterone (T), follicle stimulating hormone (FSH), luteinizing

hormone (LH), progesterone (P), and estradiol (E), in quercetin-treated mice were assessed by ELISA and contrasted to levels in model animals. When compared to the control group, serum testosterone levels were lower following CP treatment, while the Que group displayed a normal level that is comparable to the control group (Fig. 2A). Contrarily, administering quercetin or CP showed no discernible impact on the other hormones assessed (Fig. 2B-E). These findings imply that quercetin stimulates the production of testosterone of the reproductive damage caused by CP in mice.

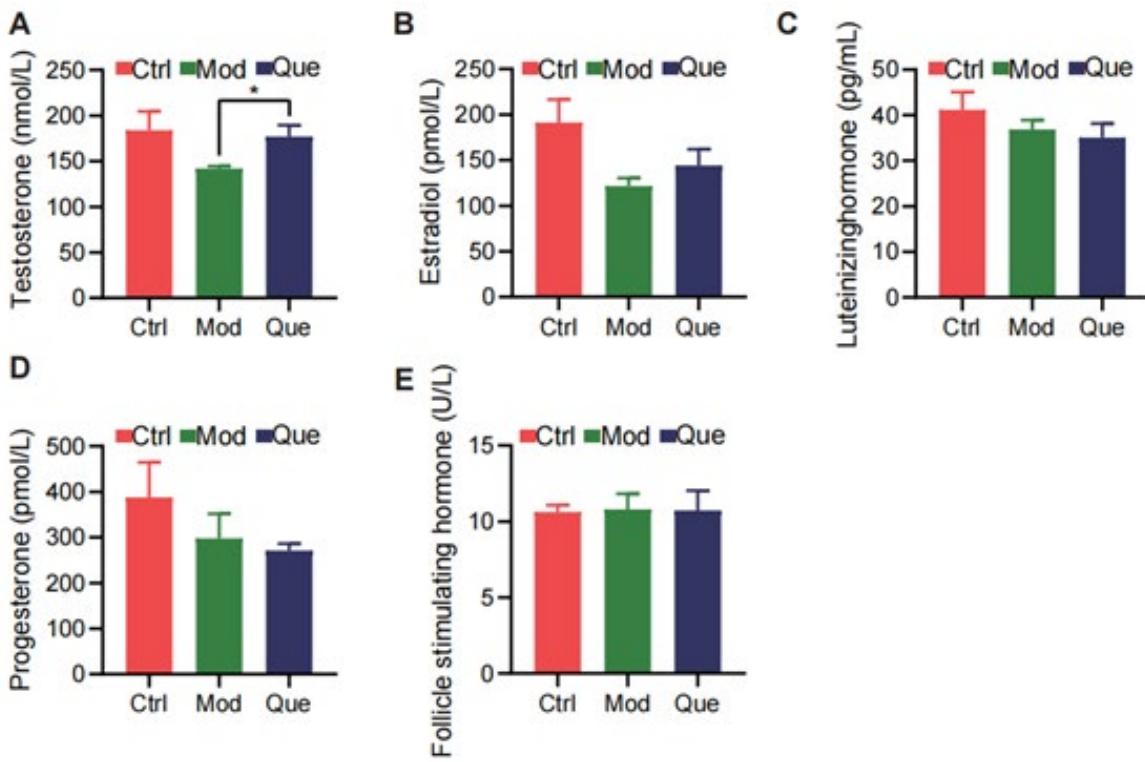


Figure 2: Effects of Quercetin on Sex Steroid Hormone Levels of CP-Treated Mice (A) Effects of quercetin on serum testosterone. (B) Effects of quercetin on serum estradiol. (C) Effects of quercetin on serum luteinizing hormone. (D) Effects of quercetin on serum progesterone hormone. (E) Effects of quercetin on serum follicle stimulating hormone.

3.2 Quercetin Alleviates CP-Induced Testicular Injury in Mice
 In order to explore whether quercetin lessened testicular damage, testes were obtained 30 days following quercetin treatment. HE staining revealed no visible histological abnormalities in the Ctrl group, however in the Mod group, the shape of the seminiferous tubules was disrupted and the count of germ cells was dramatically reduced (Fig. 3A). In the Que group, slight seminiferous tubule degradation and minor reduction of spermatogenic activity were both detected. Johnsen performed considerably better in the quercetin-treated group than in the Mod group.

To detect alterations in the internal microstructure of cells, testis TEM was applied. The testis of Ctrl group were observed to have a thick basement membrane, myoid cells and regularly spaced spermatogonia surrounding it, which are all indicative of normal testic-

ular morphology. The spermatogonial cells were in close proximity to the basal membrane, and their nuclei were aligned in a plane that was parallel to the tubule restricting membrane. The nucleus of the spermatogonial cell was spherical or elliptic in shape, the caryoplasm was extremely granular, and the cytoplasm was sparse (Fig. 3B). In the Mod group, the tubular basement membrane was severely disrupted and exhibited an uneven shape, and the spermatogonial cells showed chromatic agglutination, karyopyknosis, and nuclear fragmentation, demonstrating that spermatogonial cells had undergone cellular modification and apoptosis (Fig. 3B). Whereas, in the quercetin treated group, the structure of tubular basement membrane was clear, and the morphology of the majority of the spermatogonial cells was normal. (Fig. 3B). These data strongly suggested that treatment with quercetin effectively improved the structural abnormality of the testis.

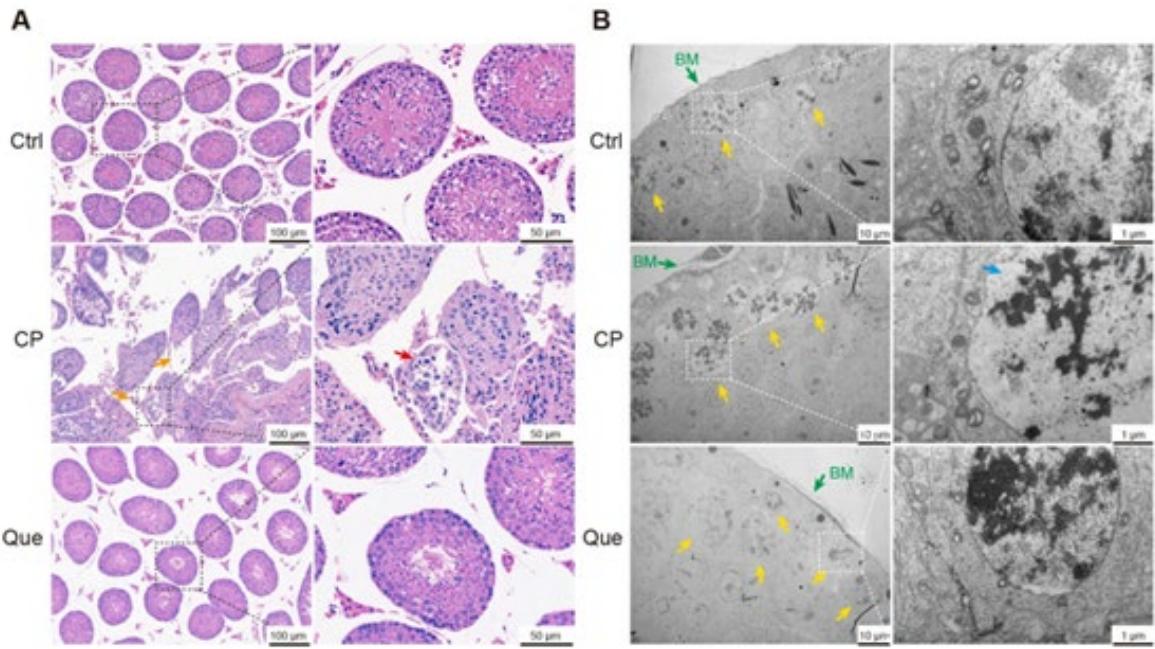


Figure 3: Quercetin Alleviated Testis Injury Induced by CP

(A) Histopathological examinations of testes collected from the control group (Ctrl), testicular injury group (induced by CP), and Que group (treated with quercetin). Orange arrows indicate the atrophy of seminiferous tubules and obvious decrease of cell components in seminiferous tubules. Red arrow indicates the necrotic spermatogonial cells in seminiferous tubules. (B) Transmission electron microscopy (TEM) analysis of testis from different groups. Green arrows indicate basement membrane (BM). Yellow arrows indicate spermatogonial cells. Blue arrow indicates apoptotic spermatogonial cells.

3.3 Proteomic Investigation of the Mechanisms of Quercetin's Alleviation of CP-Induced Testicular Damage in Mice

To explore the molecular mechanisms of the CP-induced testis

injury laxation effect by quercetin, DIA-based proteomic analysis was carried out. As a result, 16190 peptides that correspond to 10901 different proteins were found in the spectrum library (Fig. S1). Of the 10901 proteins, 7528 (69.1%) proteins contained two or more distinct peptides (Fig. 4A). The DIA data with the spectra library were analyzed by Spectronaut Pulsar 11.0 (Biognosys AG, Switzerland), and the results showed that 4485 proteins were further quantified (Table S1). Spectronaut Pulsar 11.0 (Biognosys AG, Switzerland) evaluated the DIA data with the spectra library and further identified 4485 proteins. The 4485 detected proteins were annotated after being mapped to various public databases, including protein sequences of mice in NCBI and UniProt databases or other species databases (Table S1).

Subcluster 4			
Accession	Con	Mod	Que
A0A0N4SV29	1.122802682	-1.306039242	0.183236559
Q6NSR5	0.06252857	-1.254811437	1.192282867
A0A0N4SV23	0.223118456	-1.320965535	1.097847079
Q8K0Z7	0.495872859	-1.394924913	0.899052054
A0A087WPF9	0.28522945	-1.34219095	1.056961501
A0A494BAX5	1.020073078	-1.358321978	0.3382489
A0A1B0GR60	0.251438548	-1.330951199	1.079512651
D3YW8	0.831909124	-1.406381443	0.574472319
Q9CVB6	1.066382153	-1.337629905	0.271247752
P52019	0.826370783	-1.407083524	0.580712741
Q6PJN8	0.964998511	-1.377811159	0.412812648

A0A338P7I7	0.579045118	-1.406898979	0.82785386
Q9D9D8	0.279093878	-1.340205073	1.061111196
Q9CWA5	0.227699193	-1.322615417	1.094916224
Q810Q5	0.266312433	-1.335989649	1.069677216
O88987	1.092321077	-1.324058988	0.231737911
Q922B1	0.521991527	-1.399259193	0.877267666
Q9WTI7	1.241864379	-1.206875573	-0.034988807
A0A0U1RNK6	1.281967604	-1.158109798	-0.123857806
A0A3Q4EG54	1.233810786	-1.215473024	-0.018337762
Q06770	0.78294384	-1.411397999	0.628454159
H9LAN6	0.917702372	-1.390713175	0.473010803
Q3TIU7	1.325095856	-1.090438954	-0.234656902
Q9CZX0	0.212495655	-1.317088113	1.104592458
Q9CZX7	1.270719403	-1.172904257	-0.097815145
E9Q3Q6	0.134674127	-1.286515951	1.151841824
Q91X88	0.536907971	-1.40150181	0.864593839
Q99KR6	0.91993353	-1.390177346	0.470243816
A0A338P6B7	0.304422033	-1.348244218	1.043822185
D3YXD2	0.811326264	-1.408814302	0.597488038
A0A0G2JGN6	0.017834457	-1.233564708	1.215730251
A3KGU5	0.417494475	-1.378906959	0.961412483
A0A217FL49	0.815233839	-1.408389292	0.593155452
Q9JLB9	0.207585819	-1.315271797	1.107685978
Q3THH1	1.310908961	-1.114952329	-0.195956632
A0A6I8MWZ8	0.279862865	-1.340455311	1.060592446
Q8R5A6	0.733294078	-1.413886193	0.680592116
E9QK36	1.104214314	-1.317308478	0.213094164
Q99JG3	0.745628309	-1.41350086	0.667872551
P16460	0.073174778	-1.259691673	1.186516895
B2RWW2	0.745475016	-1.413506575	0.668031559
A2AL85	0.234297414	-1.324968454	1.09067104
A2ACG7	1.236088003	-1.213077476	-0.023010527
E9PZM4	0.516865145	-1.398449159	0.881584014
A0A1B0GRP8	0.685034396	-1.41398624	0.728951843
F8VQ03	0.943597817	-1.384058395	0.440460577
B1AY13	1.237329112	-1.211760249	-0.025568863
A0A1L7NR63	0.829324787	-1.40671345	0.577388663
A0A1Y7VIW8	1.006712516	-1.363529167	0.35681665
D3Z6P9	1.359307489	-1.01760694	-0.341700549
Q00422	0.048605484	-1.248324037	1.199718553
A0A494BBL5	0.965672365	-1.377603003	0.411930638
Q9CZC8	0.42415262	-1.380438804	0.956286183
Q8VCU0	0.865645684	-1.401323313	0.535677629

A2ALR9	0.531397561	-1.400693263	0.869295702
A0A0G2JFU3	1.310387407	-1.11580594	-0.194581467
P27048	1.254352281	-1.192817606	-0.061534675
Q5SWT3	0.390027947	-1.372260188	0.982232241
A0A140LIU8	0.692505788	-1.414113747	0.721607958
P24668	0.133709694	-1.286113346	1.152403652
Q5M8S2	1.01957729	-1.358521001	0.338943712
Q99JF5	0.501278004	-1.395863989	0.894585986
E9PUA2	0.296523756	-1.345782336	1.04925858
E9PX70	0.401602895	-1.375125226	0.973522331
A0A1S6GWG7	1.309522798	-1.117214134	-0.192308664
E9Q3A0	0.848912544	-1.404002401	0.555089857
F6R587	0.85399002	-1.403225405	0.549235385
Q3URM4	0.807605415	-1.409203185	0.60159777
E9QLE5	1.358068999	-1.020701656	-0.337367343
Q8K3I8	1.006278045	-1.36369313	0.357415085
F8QZ85	1.05659776	-1.3423633	0.28576554
A0A0N4SWA2	0.054054366	-1.25087709	1.196822724
P63085	0.829798878	-1.406653121	0.576854243
A0A1B0GRU3	0.830861455	-1.406516966	0.575655511
Q99JP7	1.218114779	-1.231269	0.013154221
Q91YJ5	0.192174679	-1.309471726	1.117297047
Q3UGP8	0.438940681	-1.383729035	0.944788355
B2RX00	0.271529443	-1.337723049	1.066193606
Q99LZ3	0.767902697	-1.41241821	0.644515513
Q8CGW4	0.944442022	-1.383825064	0.439383042
Q61391	0.576372366	-1.406598527	0.830226162
A0A0G2JFT8	0.868645403	-1.400806728	0.532161325
Q8K4K6	0.652192141	-1.412826975	0.760634834
Q7TSG5	1.327476606	-1.086058555	-0.241418051
Q5SWU9	0.768845922	-1.41236117	0.643515248
B1ATV4	1.15194175	-1.286444417	0.134502666
Q922S5	1.185855901	-1.260242971	0.07438707
A0A0R4J047	0.129713829	-1.284439114	1.154725286
A0A1S6GWH1	0.827267705	-1.406972218	0.579704513
Q3U7G3	1.05352676	-1.343807457	0.290280697
Q5SSW2	1.28295148	-1.156768496	-0.126182984
Q8QZV7	1.025440557	-1.356138175	0.330697619
Q80Y84	0.627187484	-1.411308138	0.784120654
Q3TC98	0.781611529	-1.411497963	0.629886434
Q8C9M6	1.02870238	-1.354784745	0.326082365
A0A087WRM2	0.652528852	-1.412843725	0.760314873
P62267	0.518647493	-1.39873306	0.880085567

G3UVV4	1.366068598	-0.999881959	-0.366186638
Q3TN29	1.317005909	-1.104733362	-0.212272547
A0A338P6G0	1.159347234	-1.28105475	0.121707516
Q921M7	0.590346376	-1.408105516	0.817759141
D3YWF8	0.382161927	-1.370260422	0.988098496
B1AR39	1.151987729	-1.286411491	0.134423763
B1AU43	1.322020381	-1.095977527	-0.226042855
A2AI92	1.059814323	-1.3408296	0.281015277
B1AT32	0.067072837	-1.256903054	1.189830218
Q9D9V9	1.33575722	-1.070140324	-0.265616896
Q3UVG3	0.567532856	-1.405564023	0.838031167
A0A0J9YTV5	0.850205566	-1.403807474	0.553601908
P17809	0.846727617	-1.404327242	0.557599624
Q922F4	0.654211021	-1.412925917	0.758714896
P12970	-0.10494727	-1.168894268	1.273841537
O09130	1.28881428	-1.148607808	-0.140206473
O35344	0.334063659	-1.357116324	1.023052665
O35345	1.088317865	-1.326254303	0.237936439
Q9D1E5	0.355685557	-1.3632186	1.007533043
A2AQJ8	-0.003127142	-1.223178306	1.226305448
Q91YD3	0.882554817	-1.398263692	0.515708875
A0A3Q4EGC9	0.078519983	-1.262115649	1.183595666
Q9JJB1	1.269042576	-1.175028647	-0.094013929
Q3UGR5	0.020431165	-1.234832635	1.21440147
Q80SY6	0.800168865	-1.40993459	0.609765726
P70190	1.354037463	-1.030482891	-0.323554572
O88792	-0.071448335	-1.187456666	1.258905001
Q4KKZ1	0.969241987	-1.376488404	0.407246417
F6UP77	-0.142224505	-1.147423402	1.289647908
P24270	0.911017136	-1.392277394	0.481260258
A0A1B0GSM1	1.03894051	-1.350404646	0.311464137
Q60692	0.460736937	-1.388293814	0.927556877
A0A0R4J0B2	1.370854192	-0.986374082	-0.384480111
A0A0R4J0B4	0.468438439	-1.38982472	0.92138628
Q9QZ59	1.314227177	-1.109446646	-0.204780531
Q62348	0.897256149	-1.395305714	0.498049565
A2AG22	0.786641329	-1.411110704	0.624469375
A0A2I3BS41	0.631286806	-1.411594007	0.780307201
B2RWE8	0.021051223	-1.235134788	1.214083565
E0CX19	1.211327737	-1.237734937	0.0264072
G5E885	0.665202682	-1.413401528	0.748198846
F6S1B5	1.298403906	-1.134599185	-0.163804721
Q9D898	0.585745966	-1.407626879	0.821880912

A0A1L1SS02	0.698283148	-1.414177012	0.715893864
A0A1W2P6X8	0.930615103	-1.387515038	0.456899935
D3Z0X3	0.890617047	-1.396676463	0.506059416
G3X9W3	1.3182135	-1.102654805	-0.215558695
A2AT02	0.423736165	-1.380343905	0.95660774
A0A1L1SST5	0.65439743	-1.412934872	0.758537442
A0A0N5E9G7	1.051003819	-1.344979322	0.293975503
Q91Y44	0.932360098	-1.38706467	0.454704573
A0A494BAJ6	1.022802733	-1.357218088	0.334415355
P70296	1.319748991	-1.099984654	-0.219764337
G3X937	1.34437443	-1.052309621	-0.29206481
P62340	0.887357066	-1.397328405	0.509971339
B2RRE2	0.593962071	-1.408469584	0.814507513
Q9DAA4	1.275939711	-1.166158638	-0.109781073
E9Q586	0.259202384	-1.333598947	1.074396563
P50543	0.295156358	-1.345351965	1.050195608
E9QLT0	0.684258761	-1.413970069	0.729711308
Q9DBY8	1.333659633	-1.074277957	-0.259381677
Q9D9W0	0.480564622	-1.392147422	0.9115828
Q8CHH7	0.182019948	-1.305568146	1.123548198
A0A1Y7VMZ0	0.001859958	-1.225673791	1.223813833
A0A1S6GWK0	0.357191921	-1.363632014	1.006440093
Q80ZU5	1.279477998	-1.161468852	-0.118009147
Q6ZQF0	1.144459766	-1.291715035	0.147255269
A0A494BA20	0.361394722	-1.364777338	1.003382615
D3Z184	1.283372426	-1.156192201	-0.127180225
Q9JJ94	0.989307764	-1.369841068	0.380533304
B2RY71	0.658009882	-1.413102375	0.755092493
B9EI20	1.295894864	-1.138347653	-0.157547211
Q3TN15	0.655076586	-1.41296724	0.757890654
Q9Z2L7	0.590354186	-1.408106314	0.817752128
D3Z6W7	1.010960225	-1.361908491	0.350948267
Q9D3S3	0.525270156	-1.399766754	0.874496598
P55096	1.283860415	-1.155522289	-0.128338126
Q7TPS3	0.374328498	-1.36822675	0.993898252
Q569U9	1.285856442	-1.152761437	-0.133095005
D3Z030	1.293498609	-1.141871524	-0.151627085
Q9D9S2	0.306348342	-1.34883843	1.042490088
B2CSK2	0.74789117	-1.413413766	0.665522596
A0A1D5RMD1	1.169197738	-1.273607205	0.104409468
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P52795	0.997880354	-1.366797366	0.368917012
A0A1D5RLL5	0.932717687	-1.386971839	0.454254152

Q80VT5	1.266491155	-1.178222747	-0.088268408
F8WIB1	1.31843286	-1.102275225	-0.216157635
Q3UDK1	-0.058387414	-1.194506903	1.252894317
Q80TR8	0.972408979	-1.375482614	0.403073636
P32037	1.366234722	-0.999427358	-0.366807364
A2A4A6	0.753388464	-1.413180781	0.659792318
Q9D4H1	0.11387542	-1.277705621	1.163830201
A2AKH7	0.953332291	-1.381303176	0.427970886
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Q99KG3	0.821062649	-1.40772343	0.586660781
E9PUB7	1.26516736	-1.179862095	-0.085305266
G3UXZ2	0.734447928	-1.413856507	0.67940858
P62137	0.837842949	-1.405589805	0.567746856
P70670	0.372161086	-1.367656649	0.995495564
Q3UEG9	1.152644965	-1.285940118	0.133295153
A2AQAA7	0.992236739	-1.368815161	0.376578423
Q9ERZ0	-0.013074152	-1.218155457	1.231229609
Q6X6Z7	0.950788168	-1.38203701	0.431248841
A0A1D5RLK4	1.080516097	-1.330424944	0.249908847
P21614	-0.127946623	-1.155748889	1.283695512
Q8C165	1.194514302	-1.252887906	0.058373604
Q6RI63	0.630371348	-1.41153141	0.781160062
D3Z6J3	1.047632956	-1.346524745	0.298891788
A0A0G2JEG0	0.756961813	-1.41301298	0.656051167
Q8R059	-0.074016209	-1.186058207	1.260074415
Q3UZQ3	0.313864939	-1.351133709	1.03726877
Q8BHB4	0.160139767	-1.296937354	1.136797587
Q9D6S7	0.707571933	-1.41421346	0.706641527
Q8C4J7	1.027625557	-1.355233771	0.327608214
Q9D2E9	0.289792442	-1.343651932	1.05385949
Q9D4I8	1.100064008	-1.319703612	0.219639603
A0A171EBK9	1.018668388	-1.358884685	0.340216297
P48722	1.01090496	-1.361929784	0.351024824
E9QNV2	1.352914919	-1.033130862	-0.319784057
Q8BZY3	0.229544772	-1.323276378	1.093731606
Q91W18	0.428837035	-1.38149782	0.952660785
P09411	1.300357596	-1.131637614	-0.168719982
P59235	1.255042885	-1.192012822	-0.063030063
E9Q4U7	0.750985291	-1.413286372	0.662301081
A0A0H2UH22	0.316433071	-1.35190937	1.0354763
F8WIT2	0.438084702	-1.383542821	0.945458119
A0A494BAQ9	1.349442978	-1.041126643	-0.308316336
G3X8P9	0.410046592	-1.377156541	0.967109949

P67778	0.704689691	-1.414210811	0.709521121
Q8BHA3	0.052443406	-1.250124178	1.197680771
A0A571BEG0	0.625462143	-1.411183542	0.7857214
C6EQH5	0.174366019	-1.302583096	1.128217076
A0A0R4J0X4	0.668055828	-1.413507445	0.745451618
A0A087WQF7	0.783116058	-1.411384941	0.628268883
P62331	1.303589593	-1.126653333	-0.17693626
Q8C586	0.712546222	-1.414199579	0.701653356
A0A171KXD3	0.125092665	-1.28249054	1.157397875
A0A2X0SFE2	0.999893956	-1.366064209	0.366170253
Q9DAS2	1.352570596	-1.033936786	-0.318633811
Q9CQ65	1.101471351	-1.318896236	0.217424885
Q8C0Y0	0.952852849	-1.381442218	0.428589369
Q3TW96	0.886393055	-1.397518546	0.511125491
A0A1W2P756	0.873646662	-1.399920487	0.526273826
A0A1L1SV25	0.351994276	-1.36219907	1.010204793
A0A0B4J1E9	0.896354834	-1.395495214	0.49914038
A2AE98	0.138042181	-1.287917422	1.149875241
G3UYX5	0.978327461	-1.373559872	0.39523241
Q925E7	0.911757154	-1.392107272	0.480350118
Q8BGR9	1.131844671	-1.300221819	0.168377148
Q80SW1	0.569612241	-1.405812999	0.836200758
Q8VCS6	0.776018498	-1.411897167	0.635878668
A0A1B0GRA5	1.175177388	-1.268924573	0.093747185
D3Z1F2	0.982488109	-1.372174152	0.389686044
B2RT02	1.356658383	-1.024173846	-0.332484537
A0A5F8MPP6	0.52488122	-1.399706972	0.874825752
Q3V030	0.450026094	-1.386093314	0.93606722
Q9D024	0.862161709	-1.40190931	0.539747601
Q3TZ32	-0.02296032	-1.213103287	1.236063606
Q3TI61	1.360763992	-1.013910134	-0.346853858
Q8BVN8	1.030935248	-1.353846647	0.322911398
A0A3B2WB73	0.604224763	-1.409444458	0.805219694
Q3TDF8	0.945911788	-1.383416309	0.437504521
F6TVP2	0.216541018	-1.318573153	1.102032136
A2RRK3	0.658812214	-1.413138016	0.754325802
E9Q717	0.886234484	-1.397549707	0.511315223
Q8C134	0.253087485	-1.331516789	1.078429305
Q8R3F5	1.285801299	-1.15283816	-0.132963139
D3YV99	0.5112353	-1.397536584	0.886301284
A0A2R8VHH1	1.189004912	-1.257601611	0.0685967
A0A1W2P7J9	-0.021971518	-1.213611293	1.235582811
Q80SX7	0.709294521	-1.414211304	0.704916783

Q80U19	1.18409197	-1.261706089	0.077614118
Q9WV55	0.529804727	-1.400455186	0.870650459
F8VPP8	0.545447669	-1.402708405	0.857260736
Q9QZN4	0.64424633	-1.412402946	0.768156615
Q8C2E7	0.513910066	-1.397973145	0.88406308
Q9DAP0	0.094481995	-1.269249534	1.17476754
A0A087WRE9	0.191291091	-1.309134643	1.117843552
Q14CH7	0.022014883	-1.235603909	1.213589026
A0A3B2W8B4	1.363770109	-1.00607376	-0.357696349
A0A1L1ST33	0.607851963	-1.409768192	0.801916228
B0R029	1.088929613	-1.325921282	0.23699167
Q9CYJ6	0.37890582	-1.369420191	0.990514371
A0A140LJ55	1.281459176	-1.158799839	-0.122659337
P31230	0.61082151	-1.410025082	0.799203573
D3YWN5	1.239798558	-1.209114563	-0.030683995
A0A140LHL5	0.580144724	-1.407020917	0.826876193
A2A9H6	0.425019192	-1.38063588	0.955616688
Q6ZPE2	0.880759799	-1.398605673	0.517845873
E5RKB6	1.006145091	-1.363743239	0.357598148
B1AWG4	1.32851733	-1.084117305	-0.244400026
Q8BPS4	0.99915575	-1.366333804	0.367178055
P62918	-0.115158127	-1.163098598	1.278256726
A1A540	0.947702011	-1.38291408	0.43521207
Q6PE84	0.920968235	-1.389926495	0.46895826
A0A571BF43	0.98712268	-1.370597035	0.383474355
O88502	0.770206157	-1.412277288	0.642071131
O89053	0.017369996	-1.233337485	1.215967488
P18654	1.30060939	-1.131253145	-0.169356245
F6X4L9	0.741637162	-1.413642027	0.672004865
A7VL18	-0.093144409	-1.175513345	1.268657754
Q8C7H1	0.641097414	-1.41221971	0.771122297
Q2TK26	0.67220693	-1.413648537	0.741441607
A2AJP5	0.513156137	-1.397850641	0.884694504
Q6PCM2	0.869404273	-1.400674267	0.531269995
A0A1X7SB53	0.523489533	-1.399492116	0.876002583
A0A1Y7VLP0	1.020677339	-1.358078799	0.33740146
A4FUU4	0.833011578	-1.406237461	0.573225883
A0A1Y7VNZ6	0.063313197	-1.255173488	1.191860291
F6TCV0	1.290502975	-1.146202138	-0.144300837
P11440	0.700132289	-1.414190707	0.714058418
A0A1B0GS10	1.127104524	-1.303299884	0.176195359
Q14CG3	1.112593214	-1.312340425	0.199747212
Q3TBV3	0.820136885	-1.40783175	0.587694865

A0A075B5P5	1.084458372	-1.328335114	0.243876742
Q8BH35	0.167827328	-1.300003912	1.132176584
Q8K2Q9	0.552850765	-1.40370841	0.850857645
Q69Z43	0.227641279	-1.322594641	1.094953362
Q80YT3	1.135238979	-1.297978542	0.162739564
A2AVJ7	0.47581754	-1.391250979	0.915433439
Q3TL58	0.707613198	-1.414213442	0.706600243
A0A0R4J0J5	1.185359062	-1.260656268	0.075297206
A3KGW0	1.142171581	-1.293292866	0.151121285
B8JJB2	-0.054170985	-1.196760547	1.250931532
Q3U896	1.026927214	-1.355523803	0.328596589
A0A068BD58	0.663254552	-1.413325039	0.750070487
A0A0U1RPF2	0.180111954	-1.304827463	1.124715509
Q5XK33	0.167280433	-1.299786977	1.132506544
A0A0G2JEL6	1.203090144	-1.2453079	0.042217756
F8VPR1	0.393715486	-1.37318299	0.979467504
P58389	0.636686245	-1.411948613	0.775262368
E0CZE0	0.212225923	-1.316988727	1.104762803
E0CX98	-0.064314364	-1.191320544	1.255634908
A0A0R4J140	0.698438527	-1.414178285	0.715739758
Q8VEH6	1.272422949	-1.170725159	-0.101697791
H7BX88	1.038473578	-1.35060883	0.312135253
P97434	0.740797175	-1.413669722	0.672872546
A0A0J9YU88	0.368862051	-1.366782746	0.997920695
Q80W93	-0.00958743	-1.219923012	1.229510442
B2KF24	0.919248014	-1.390342717	0.471094703
A0A140LHG8	0.021989217	-1.235591422	1.213602205
G3UW57	1.254119978	-1.193087648	-0.06103233
A0A140LHG7	-0.010877642	-1.219269821	1.230147463
A0A1B0GRR3	0.369026914	-1.366826593	0.997799679
Subcluster 1			
Accession	Con	Mod	Que
Q8C0S4	0.307004159	1.042036015	-1.349040174
A0A087WQT6	-0.318686102	1.352586269	-1.033900167
Q922B5	-0.253014256	1.331491709	-1.078477453
Q78PG9	0.085968968	1.179495374	-1.265464342
A0A0R4J048	-0.443026623	1.38461071	-0.941584087
Q8C8R9	0.199736987	1.112599589	-1.312336576
Q3TBZ6	0.277699826	1.062050626	-1.339750452
A2RSG8	0.28053199	1.06014075	-1.340672739
O35490	-0.044945366	1.246598876	-1.20165351
A0A1L1SRC3	0.244390984	1.0841232	-1.328514183
G3X9Z0	0.376365965	0.992393781	-1.368759746

Q14DK4	0.110752798	1.16560696	-1.276359758
E9QLK3	0.318319847	1.034156613	-1.35247646
Q9D4R2	-0.027637313	1.238329634	-1.210692321
Q8C8M9	-0.118109536	1.27952091	-1.161411374
Q6ZWY7	0.23992837	1.087026197	-1.326954567
Q3URN2	0.237167999	1.088815481	-1.32598348
Q8JZP9	0.044280196	1.202004276	-1.246284472
Q0EEE2	0.187025408	1.120474991	-1.307500398
A0A0N4SW77	0.326345986	1.028516448	-1.354862434
A0A0A0MQ89	0.219631185	1.100069364	-1.319700549
Q91X72	0.040139302	1.204181805	-1.244321107
A0A0G2JGQ4	0.30375729	1.044281308	-1.348038597
Q8CGF7	0.276172231	1.0630786	-1.339250831
P17918	-0.01658394	1.232952629	-1.216368689
A0A2I3BQV5	-0.17305926	1.302069786	-1.129010525
A0A0G2JDE8	0.07872869	1.183481248	-1.262209938
Q8JZS2	0.069629062	1.188444986	-1.258074048
A0A455R725	0.197724985	1.1138529	-1.311577885
Q05BY0	0.06785439	1.189407116	-1.257261506
Q06138	0.215419738	1.102742837	-1.318162574
B1AR28	-0.518853962	1.398765791	-0.879911829
G3X8X0	-0.096531571	1.270154177	-1.173622606
A0A1L1SQA8	0.293879788	1.051069289	-1.344949077
A0A0J9YVG0	0.00382296	1.222828917	-1.226651876
Q8C2C6	0.132399879	1.153165758	-1.285565637
Q3TFA9	-0.518995096	1.398788147	-0.87979305
Q3U7M5	-0.139196776	1.288396235	-1.14919946
D9J2Z9	-0.544973424	1.402642885	-0.857669461
E9Q5L3	-0.533298183	1.400974788	-0.867676605
A0A1S6GWI6	0.139045173	1.14928824	-1.288333413
Q3TFP0	0.244723632	1.083906296	-1.328629928
Q91ZA3	0.312346672	1.03832642	-1.350673092
B2RUG3	-0.221244631	1.320286777	-1.099042147
O35125	-0.446316585	1.385311953	-0.938995368
P51150	-0.036844285	1.242751295	-1.20590701
Q05DI7	0.075861659	1.185050673	-1.260912333
A2BFF5	0.128207421	1.155597951	-1.283805372
Q8K4I7	-0.401372882	1.375069197	-0.973696315
Q9CQJ2	0.057067484	1.195213567	-1.252281051
A0A1S6GWJ8	-0.341766474	1.359326234	-1.017559761
Q6NWV5	0.033449021	1.207677741	-1.241126761
P16381	-0.090118009	1.26731473	-1.177196721
O55023	-0.009076962	1.229258125	-1.220181163

O35945	-0.007510023	1.228482614	-1.220972591
A0A1W2P7H9	0.014277438	1.217543736	-1.231821174
A2AVQ9	-0.022704283	1.235939168	-1.213234886
Q99MW5	-0.257406445	1.332989917	-1.075583472
Q7TPD5	-0.154830655	1.294798012	-1.139967357
Q9QYF1	0.075817977	1.185074546	-1.260892523
B2RUF0	-0.445641934	1.385168785	-0.939526851
A0A338P7C0	0.212210828	1.104772335	-1.316983163
Q61586	-0.167695537	1.299951652	-1.132256115
Q3TRW3	0.325388871	1.029191282	-1.354580152
A0A1L1SRK1	-0.375028609	1.368410217	-0.993381608
D3YXB7	0.001430722	1.224028884	-1.225459606
Q62210	-0.216781707	1.318661182	-1.101879476
A0A0G2JGF7	0.172877284	1.129120934	-1.301998218
A0A286YDT6	-0.513494353	1.39790565	-0.884411297
P35564	0.119091152	1.160849021	-1.279940173
O70493	-0.124913388	1.282414678	-1.157501291
Q9D2H8	-0.040245386	1.244371537	-1.204126151
A0A3B2WCD8	0.030462878	1.209229263	-1.23969214
Q69ZR9	-0.038418822	1.243502266	-1.205083445
G3UXH4	0.154447622	1.140195365	-1.294642987
Q8CHX7	0.198180418	1.113569426	-1.311749845
A0A286YD22	-0.487069166	1.393348794	-0.906279628
D3YZ06	0.044043592	1.20212898	-1.246172572
Q05CL8	0.178341871	1.125796403	-1.304138274
Q9QZM0	-0.27290197	1.338176156	-1.065274186
Q8CDV3	0.201094256	1.11175268	-1.312846936
Q8K410	0.053066526	1.197349067	-1.250415593
Q9DBG7	-0.238573653	1.326478592	-1.087904939
Q9JM62	-0.273267455	1.338296606	-1.065029151
E9PYH2	0.222483689	1.098252164	-1.320735853
Q9D8B3	-0.389263782	1.372067784	-0.982804001
Q91VZ1	0.078740015	1.183475039	-1.262215054
D3Z125	0.002404061	1.223541071	-1.225945132
Q3UDM0	0.279182027	1.061051751	-1.340233777
Q8C297	-0.429820285	1.381718135	-0.95189785
P97351	0.370673784	0.996589802	-1.367263586
Q9EQH2	0.381141095	0.988856686	-1.369997781
Q8K1S6	-0.278679384	1.340070033	-1.061390649
Q80UW8	-0.116359932	1.278772148	-1.162412216
H3BLJ6	-0.162071466	1.29771138	-1.135639914
P00015	-0.30782315	1.349291716	-1.041468566
Q8K297	-0.122607078	1.281436986	-1.158829908

Q8VGK8	-0.574509421	1.40638571	-0.831876289
Q9CQ75	0.391989813	0.980762499	-1.372752311
A0A0G2JGT5	-0.156454046	1.295454035	-1.138999989
A0A087WSP5	-0.420750262	1.379659918	-0.958909656
A0A3B2W887	0.073237125	1.186482923	-1.259720048
O08582	-0.494778582	1.394732141	-0.899953559
Q8CIA5	-0.108678012	1.275462185	-1.166784173
A0A1B0GX81	-0.00434018	1.226909194	-1.222569014
E9QAQ5	-0.336565383	1.35783841	-1.021273027
Q45VK7	-0.29864434	1.346447338	-1.047802998
Q6PER3	-0.554681007	1.403949014	-0.849268007
Q9CRB2	-0.24004311	1.326994827	-1.086951717
Q8BWE1	0.308575592	1.040946837	-1.349522429
Q61646	-0.326925531	1.355033063	-1.028107532
B2RUN1	0.072022102	1.187144545	-1.259166647
Q3V016	0.09867589	1.172421975	-1.271097865
A0A0J9YUD5	0.016772608	1.216272428	-1.233045036
A0A087WR97	0.245253366	1.083560736	-1.328814102
A0A1W2P7G8	0.32935074	1.026393926	-1.355744666
Q9D5A0	0.206835175	1.108157589	-1.314992764
Q8CBQ5	0.251793776	1.079279415	-1.331073191
Q8BG40	-0.123671732	1.281888724	-1.158216992
Q6TEK5	0.197173594	1.114195925	-1.311369519
Q7TSC1	-0.157651588	1.295936916	-1.138285328
A0A0R4J0V4	-0.412534971	1.377745686	-0.965210715
A0A286YDL9	0.36976517	0.997257546	-1.367022716
E9QAS8	-0.040780139	1.244625641	-1.203845502
Q9D0T1	0.309881345	1.040040567	-1.349921913
Q8K0T2	0.233633187	1.09109965	-1.324732837
P48794	-0.244861578	1.328677905	-1.083816327
P62257	-0.084996991	1.265029327	-1.180032336
Q3TF87	-0.506632815	1.396772744	-0.890139929

Table S1: The Functional Annotation of All Proteins from Testes

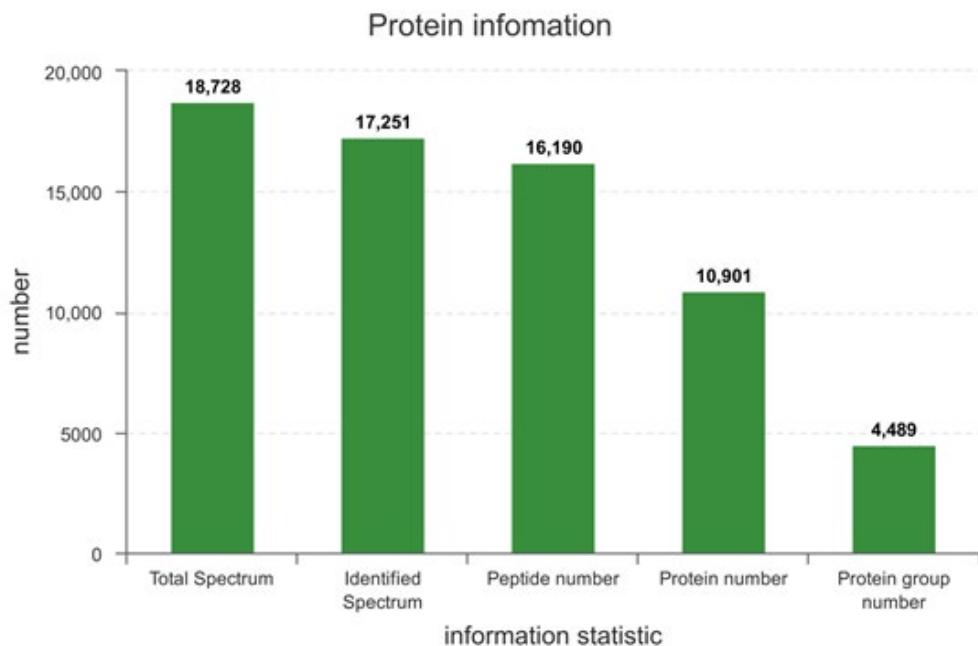


Figure S1: The Precise Protein Information of the Peptides and Proteins in the Spectral Library

Gene symbol	Official full name	Function
Gsk3b	Glycogen synthase kinase-3 beta	Beta-catenin binding activity; dynein complex binding activity; and protein kinase activity
Eif4e	eukaryotic translation initiation factor 4E	Encoding a component of the eukaryotic translation initiation factor 4F complex; recognizing the 7-methylguanosine cap structure at the 5' end of messenger RNAs. The encoded protein aids in translation initiation by recruiting ribosomes to the 5'-cap structure. Association of this protein with the 4F complex is the rate-limiting step in translation initiation.
Hspb1	heat shock protein family B (small) member 1	This gene encodes a member of the small heat shock protein (HSP20) family of proteins. In response to environmental stress, the encoded protein translocates from the cytoplasm to the nucleus and functions as a molecular chaperone that promotes the correct folding of other proteins. This protein plays an important role in the differentiation of a wide variety of cell types.
Casp8	Caspase 8	This gene is part of a family of caspases, aspartate-specific cysteine proteases well studied for their involvement in immune and apoptosis signaling. This protein, an initiator of apoptotic cell death, is activated by death-inducing tumor necrosis factor receptors and targets downstream effectors. In mouse deficiency of this gene can cause embryonic lethality.
Hnrnpm	Heterogeneous nuclear ribonucleoprotein M	This gene is predicted to enable several functions, including calcium-dependent protein binding activity; mRNA binding activity; and protein antigen binding activity. Predicted to be involved in alternative mRNA splicing, via spliceosome; positive regulation of protein localization; and regulation of mRNA stability involved in response to oxidative stress. Predicted to act upstream of or within RNA splicing and mRNA processing.

Tardbp	TAR DNA binding protein	This gene enables RNA polymerase II cis-regulatory region sequence-specific DNA binding activity and pre-mRNA intronic binding activity. Involved in positive regulation of protein import into nucleus; regulation of circadian rhythm; and regulation of protein stability. Acts upstream of or within RNA splicing.
Xpo7	exportin 7	This gene is predicted to enable nuclear export signal receptor activity, and predicted to be involved in protein export from nucleus, and predicted to act upstream of or within nucleocytoplasmic transport.
Polr2e	polymerase (RNA) II (DNA directed) polypeptide E	This gene is predicted to enable DNA binding activity. Predicted to contribute to DNA-directed 5'-3' RNA polymerase activity, and predicted to be involved in transcription by RNA polymerase II.
Rps6ka2	ribosomal protein S6 kinase, polypeptide 2	This gene enables ribosomal protein S6 kinase activity, and acts upstream of or within several processes, including cardiac muscle cell apoptotic process; oocyte maturation; and regulation of gene expression.
Erh	ERH mRNA splicing and mitosis factor	This gene is predicted to enable methyl-CpG binding activity, which involved in osteoblast differentiation.

Table 1: Functions of 10 Hub Genes in C1

Proteomic data quality was evaluated by quality control (QC) analysis. According to the median of the distribution, each sample had an intra-group coefficient of variation (CV) that was lower than 45% (Fig. 4B). The results of the principle component analysis (PCA) showed that the samples from three distinct groups were able to be highly clustered together, while the samples from

the same group were able to be well separated from one another (Fig. 4C). Protein level differences across samples were analyzed using hierarchical clustering, which revealed strong correlations between duplicates of the same group (Fig. 4D). All of these data demonstrated that the proteomic data in this investigation was repeatable and of high quality.

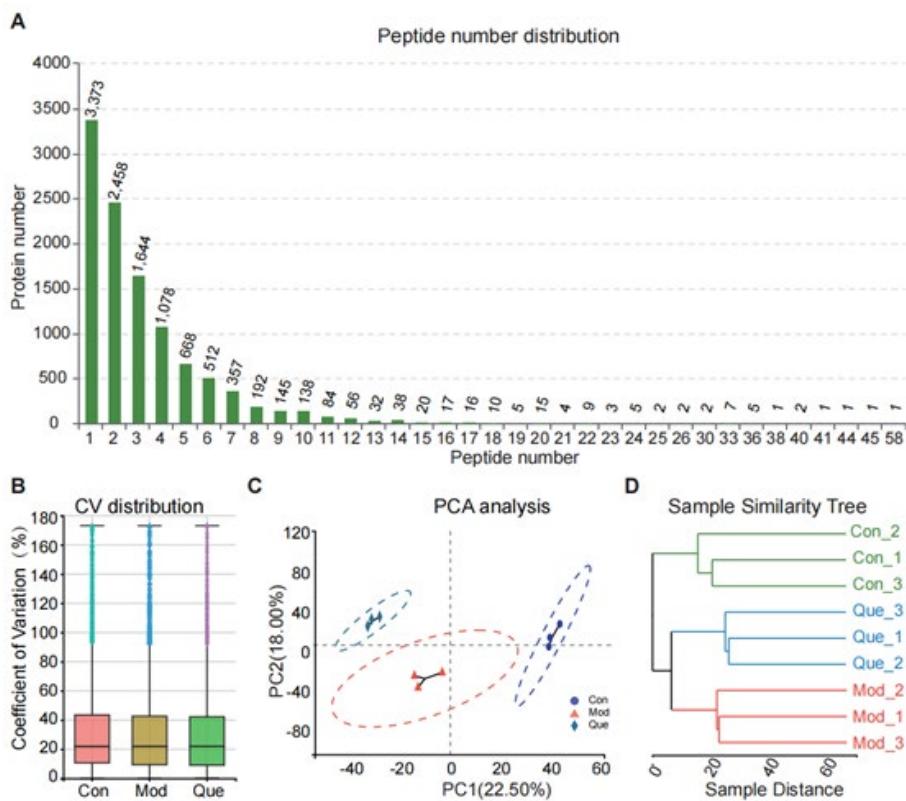


Figure 4: An illustration of the Quantitative Analysis Performed by Proteomics

(A) The number of peptide distribution of quantified proteins. (B) The range of each sample's intra-group coefficient of variation (CV). There are three replications in each group. (C) Principal component analysis (PCA) of each sample's detected proteins. (D) Hierarchical cluster analysis of protein level in each sample.

3.4 Characterization of Testis Proteomic Modifications in Testis of Ctrl, CP, and Que Mice

To discover differentially expressed proteins (DEPs) among the control group (Ctrl), the CP group, and the Que group in the testis, proteins that had an adjusted p value of less than 0.05, fold change

(FC) > 1.2 (up-regulated), or an FC < 0.83 (down-regulated) were judged to be DEPs. Among the identified and quantified proteins, 1598 DEPs were detected (Table S2). In CP-induced mice, 459 and 363 proteins were significantly down- and up-regulated, respectively, when compared to controls (Fig. 5A). Comparing mice treated with quercetin to animals in the CP group, 561 and 424 proteins were up- and down-regulated, respectively (Fig. 5B). A total of 770 DEPs were found, with 396 down-regulated proteins and 374 up-regulated proteins in the Que group compared to the Mod group (Fig. 5C).

Accession	FC(Mod/Con)	Log2FC(Mod/Con)	P_value(Mod/Con)	Regulate	Significant
P07724	1.305	0.384	0.02034	up	yes
P60710	0.9541	-0.06779	0.006333	no change	yes
Q3UZQ3	0.8794	-0.1854	0.02877	no change	yes
B7U582	0.838	-0.255	0.000516	no change	yes
P15626	1.283	0.3595	0.004623	up	yes
A0A5F8MPS3	0.8835	-0.1787	0.01169	no change	yes
D4N6R6	0.8803	-0.1839	0.01901	no change	yes
P70296	0.8051	-0.3128	0.01267	down	yes
A2AE89	1.193	0.2546	0.000544	no change	yes
P11404	1.34	0.4222	0.01223	up	yes
P32037	0.8293	-0.27	0.04475	down	yes
P48774	0.8173	-0.2911	0.007528	down	yes
A0A494B9F6	0.8373	-0.2562	0.005168	no change	yes
P43275	0.7521	-0.411	0.02864	down	yes
P24549	1.36	0.4436	1.10E-05	up	yes
Q921I1	1.261	0.3346	0.04683	up	yes
G3UX26	0.8967	-0.1573	0.01746	no change	yes
Q99KA2	1.09	0.1243	0.04783	no change	yes
P15265	0.7056	-0.5031	0.0159	down	yes
B2RUF0	1.186	0.2461	0.000606	no change	yes
E9Q133	0.9066	-0.1415	0.03688	no change	yes
Q3TJG6	0.9087	-0.1381	0.02249	no change	yes
Q9CY06	0.6042	-0.7269	0.008372	down	yes
P16045	0.802	-0.3183	0.00116	down	yes
A0A0A0MQA3	1.172	0.229	0.002489	no change	yes
E9PZF0	0.8707	-0.1998	0.003274	no change	yes
P48722	0.8294	-0.2699	0.01718	down	yes
Q9Z1R9	0.7327	-0.4487	0.006718	down	yes
A0A494BAJ6	0.818	-0.2898	0.03187	down	yes
P84104	1.765	0.8197	0.01788	up	yes
P54869	1.331	0.4125	0.01216	up	yes
Q6PHN9	0.8865	-0.1738	0.00585	no change	yes
Q3TW28	0.9046	-0.1446	0.005131	no change	yes

Q3TVV6	1.293	0.3707	0.000208	up	yes
P61089	0.6881	-0.5393	0.03862	down	yes
P34884	0.6924	-0.5303	0.04451	down	yes
P62897	1.43	0.516	0.01821	up	yes
Q6Z WV7	0.9284	-0.1072	0.01547	no change	yes
Q9R0Y5	0.8108	-0.3026	0.01523	down	yes
P35487	0.8417	-0.2486	0.01211	no change	yes
P45377	1.152	0.2041	0.03878	no change	yes
Q7TPS3	0.856	-0.2243	0.01857	no change	yes
Q9CZU6	0.9158	-0.1269	0.002764	no change	yes
Q3THH1	0.6487	-0.6244	0.01925	down	yes
P00015	1.143	0.1928	0.04861	no change	yes
Q6ZWN5	0.9182	-0.1231	0.02429	no change	yes
F6ZV59	1.085	0.1177	0.04973	no change	yes
Q3U6P5	1.105	0.144	0.01967	no change	yes
P48036	1.248	0.3196	0.0341	up	yes
A0A0G2JEY6	1.214	0.2798	0.01953	up	yes
P58389	0.6442	-0.6344	0.000148	down	yes
A2AL12	1.253	0.3254	0.01881	up	yes
P50247	1.149	0.2004	0.005289	no change	yes
P09411	0.3485	-1.521	0.000611	down	yes
P47911	0.8794	-0.1854	0.005839	no change	yes
Q8VCX1	1.132	0.1789	0.02648	no change	yes
Q8VIJ6	1.183	0.2425	0.01949	no change	yes
Q6PE84	0.7128	-0.4884	0.001519	down	yes
D3Z720	0.8611	-0.2157	0.01006	no change	yes
P10922	1.284	0.3606	0.02302	up	yes
P43276	1.375	0.4594	0.02709	up	yes
Q9QY83	0.8371	-0.2565	0.04915	no change	yes
B2CSK2	0.7659	-0.3848	0.01499	down	yes
A0A068BFR3	0.828	-0.2723	0.01412	down	yes
Q9JMB7	1.366	0.45	0.007055	up	yes
P09041	0.7391	-0.4362	0.000192	down	yes
B1AZS9	0.748	-0.4189	0.002997	down	yes
P40124	0.8882	-0.171	0.03132	no change	yes
Q80SX7	0.7504	-0.4143	0.00736	down	yes
A0A1Y7VKY1	1.116	0.1583	0.04284	no change	yes
Q60648	0.8634	-0.2119	0.02379	no change	yes
Q9DAK9	0.9367	-0.09434	0.04597	no change	yes
Q9JMI7	0.6908	-0.5337	0.003667	down	yes
P62267	0.8493	-0.2357	0.02426	no change	yes
P27048	0.7856	-0.3481	0.04419	down	yes
Q3TF87	1.239	0.3092	0.00844	up	yes

G5E902	1.223	0.2904	0.0327	up	yes
A2AEX6	0.6948	-0.5253	9.30E-05	down	yes
P63154	0.8323	-0.2648	0.001887	no change	yes
D3YZ06	1.096	0.1322	0.0491	no change	yes
Q80Y86	1.326	0.4071	0.008056	up	yes
A0A0N4SVQ1	1.116	0.1583	0.001686	no change	yes
Q61753	1.277	0.3528	0.008656	up	yes
A0A1S6GWH1	0.5684	-0.815	0.000675	down	yes
B2CY77	0.8511	-0.2326	0.02431	no change	yes
P24369	0.8371	-0.2565	0.02618	no change	yes
P19783	0.8851	-0.1761	0.002057	no change	yes
A0A1S6GWJ8	1.243	0.3138	0.02333	up	yes
Q3TIU7	0.8085	-0.3067	0.008542	down	yes
Q8CFJ5	0.7305	-0.453	0.000306	down	yes
A0A1D5RLK4	0.7456	-0.4235	0.03292	down	yes
Q9D8E6	0.811	-0.3022	0.03603	down	yes
A0A338P703	1.349	0.4319	0.008652	up	yes
A0A1B0GX27	1.158	0.2116	0.04538	no change	yes
A0A0G2JGC1	0.6863	-0.5431	0.01369	down	yes
B2RWE8	0.8589	-0.2194	0.008892	no change	yes
A2AI08	103.7	6.696	0.000888	up	yes
Q99JY0	1.136	0.184	0.04566	no change	yes
P30115	1.699	0.7647	0.04702	up	yes
E9QLE5	0.8247	-0.2781	0.01068	down	yes
A0A1S6GWG7	0.6889	-0.5376	0.01221	down	yes
Q80UU9	1.232	0.301	0.03148	up	yes
Q9CQQ8	1.527	0.6107	0.03352	up	yes
Q9QUM9	0.9248	-0.1128	0.02099	no change	yes
A0A0G2JGN6	0.8702	-0.2006	0.01564	no change	yes
A0A1D9BZF0	0.9253	-0.112	0.01754	no change	yes
Q9CX86	1.098	0.1349	0.009972	no change	yes
Q9DBF1	1.135	0.1827	0.001017	no change	yes
Q9D9G2	0.7494	-0.4162	0.000236	down	yes
Q6IQY0	1.471	0.5568	0.004338	up	yes
Q3V1Z7	1.08	0.111	0.02124	no change	yes
P35279	0.8981	-0.1551	0.02698	no change	yes
A2AT02	0.7375	-0.4393	0.02745	down	yes
Q8BMS1	1.28	0.3561	0.01797	up	yes
P28474	1.303	0.3818	0.01208	up	yes
D3YUM1	1.213	0.2786	0.04527	up	yes
A0A2I3BR94	1.494	0.5792	0.001219	up	yes
A0A087WQ84	0.1607	-2.638	0.02612	down	yes
Q3THM1	1.13	0.1763	0.01258	no change	yes

A2AKU9	1.189	0.2497	0.01573	no change	yes
A0A286YD22	1.608	0.6853	0.01466	up	yes
P62192	0.8668	-0.2062	0.03047	no change	yes
P40142	1.385	0.4699	0.01109	up	yes
Q3UG45	1.507	0.5917	0.004307	up	yes
O35344	0.7893	-0.3414	0.04564	down	yes
B2KF24	0.7257	-0.4626	0.006389	down	yes
P32020	1.13	0.1763	0.03474	no change	yes
E9Q4B1	0.7767	-0.3646	0.002353	down	yes
G3UVV4	0.7378	-0.4387	0.002787	down	yes
P67778	0.6619	-0.5953	0.02738	down	yes
A0A1Y7VKT9	1.273	0.3482	0.0121	up	yes
Q63811	0.7746	-0.3685	0.000617	down	yes
Q810Q5	0.7392	-0.436	0.02329	down	yes
Q62426	1.396	0.4813	0.0019	up	yes
A0A1S6GWH5	1.17	0.2265	0.01848	no change	yes
P62307	1.369	0.4531	0.006894	up	yes
O70435	0.831	-0.2671	0.02058	no change	yes
A1A4T2	1.139	0.1878	0.01158	no change	yes
O35490	1.202	0.2654	0.03176	up	yes
Q8BVI4	1.795	0.844	0.000765	up	yes
Q80SW1	0.767	-0.3827	0.007423	down	yes
Q9WTP6	0.8468	-0.2399	0.01609	no change	yes
Q61823	1.128	0.1738	0.03339	no change	yes
O55022	1.338	0.4201	0.02738	up	yes
D3Z494	1.172	0.229	4.80E-05	no change	yes
P47753	0.8214	-0.2838	0.03541	down	yes
Q3TI61	0.8192	-0.2877	0.009856	down	yes
P31428	0.5011	-0.9968	0.04419	down	yes
A0A1W2P756	0.6158	-0.6995	0.03999	down	yes
O35381	1.562	0.6434	0.01866	up	yes
Q54A37	2.548	1.349	0.03575	up	yes
A0A286YCG8	1.467	0.5529	0.02478	up	yes
Q9DBP5	1.317	0.3973	0.01414	up	yes
Q61646	1.609	0.6862	0.003198	up	yes
P06745	1.112	0.1532	0.04518	no change	yes
A0A0A6YVU8	1.865	0.8992	0.005865	up	yes
A0A3Q4EGQ7	1.087	0.1204	0.03512	no change	yes
Q3TDG9	1.163	0.2179	0.04428	no change	yes
Q91Z53	1.601	0.679	0.03767	up	yes
Q3V140	0.7343	-0.4456	0.000403	down	yes
F8WIB1	0.7989	-0.3239	0.04472	down	yes
Q60692	0.8385	-0.2541	0.03041	no change	yes

Q9DAQ9	0.4198	-1.252	0.04575	down	yes
Q60662	1.385	0.4699	0.007259	up	yes
Q9EQF6	1.278	0.3539	0.03344	up	yes
A7VL18	0.9209	-0.1189	0.005275	no change	yes
Q8VCT4	1.397	0.4823	0.008713	up	yes
B2RUD7	0.4603	-1.119	0.04622	down	yes
Q06EZ3	1.092	0.127	0.03102	no change	yes
Q9D2E9	0.7004	-0.5137	0.03852	down	yes
Q6PER3	1.197	0.2594	0.03681	no change	yes
P56399	0.6886	-0.5383	0.001197	down	yes
D3YU83	1.553	0.6351	0.000305	up	yes
Q3TL72	1.416	0.5018	0.03296	up	yes
Q9JM62	1.363	0.4468	0.04508	up	yes
E9Q7D8	0.8587	-0.2198	0.0221	no change	yes
P14733	0.7519	-0.4114	0.02161	down	yes
P52196	1.474	0.5597	0.000765	up	yes
Q5M8S2	0.7692	-0.3786	0.001781	down	yes
Q7TPM5	0.6142	-0.7032	0.009829	down	yes
Q9CPQ8	1.361	0.4447	0.0277	up	yes
A3KGW0	0.576	-0.7959	0.01718	down	yes
H3BK84	0.7605	-0.395	0.00447	down	yes
Q8C2C6	1.21	0.275	0.02335	up	yes
Q921M7	0.6533	-0.6142	0.006316	down	yes
P32766	0.7932	-0.3342	0.002164	down	yes
Q3UHA3	0.3429	-1.544	0.02411	down	yes
Q4TU85	1.751	0.8082	0.000537	up	yes
O89023	1.219	0.2857	0.001529	up	yes
P05201	1.136	0.184	0.03778	no change	yes
Q8CIF2	1.234	0.3033	0.02422	up	yes
Q3U900	0.8842	-0.1776	0.03002	no change	yes
A0A0U1RNK6	0.7707	-0.3758	0.002533	down	yes
Q8VDP4	1.287	0.364	0.01523	up	yes
A0A1W2P7U1	0.8256	-0.2765	0.01886	down	yes
A1A540	0.4036	-1.309	0.002537	down	yes
A0A087WNP6	1.532	0.6154	0.003821	up	yes
Q63ZW9	1.268	0.3426	0.02061	up	yes
A0A1S6GWH8	1.159	0.2129	0.005447	no change	yes
A0A1B0GRP7	0.7431	-0.4284	0.04315	down	yes
Q91X72	1.258	0.3311	0.000133	up	yes
A0A286YDC0	0.6322	-0.6615	0.005641	down	yes
P68181	0.7131	-0.4878	0.0113	down	yes
D3YVV1	1.132	0.1789	0.02389	no change	yes
P11440	0.309	-1.694	0.01259	down	yes

P62313	1.211	0.2762	0.03846	up	yes
E9PWW2	0.8306	-0.2678	0.02524	no change	yes
A0A3B2W8B4	0.6928	-0.5295	0.007419	down	yes
Q569Z5	1.263	0.3369	0.01385	up	yes
P01027	1.229	0.2975	0.002527	up	yes
H7BX88	0.7799	-0.3586	0.03748	down	yes
Q76MZ3	1.232	0.301	0.03605	up	yes
Q45VK7	1.138	0.1865	0.04839	no change	yes
Q8BGC4	1.606	0.6835	0.01534	up	yes
Q3UAI4	1.275	0.3505	0.03245	up	yes
F6S1B5	0.5985	-0.7406	0.000162	down	yes
E9Q197	1.347	0.4297	0.009282	up	yes
Q99J09	1.376	0.4605	0.003866	up	yes
Q99L20	0.5632	-0.8283	0.01072	down	yes
A0A2P9DUN6	1.472	0.5578	0.01635	up	yes
P70398	1.17	0.2265	0.007766	no change	yes
A2ACG7	0.729	-0.456	0.04988	down	yes
Q3TDF8	0.6309	-0.6645	0.005926	down	yes
Q07417	1.327	0.4082	0.01068	up	yes
B7ZP49	0.7858	-0.3478	0.03181	down	yes
P24270	0.5997	-0.7377	0.01023	down	yes
Q3TRW3	1.215	0.281	0.03451	up	yes
Q9DCR2	1.483	0.5685	0.003504	up	yes
A0A087WP52	0.7097	-0.4947	0.01287	down	yes
Q9CQB4	1.217	0.2833	0.03139	up	yes
Q9WTX2	0.785	-0.3492	0.04328	down	yes
Q9CVB6	0.3367	-1.57	0.00011	down	yes
P21981	1.591	0.6699	0.00557	up	yes
B2RT02	0.6707	-0.5763	0.0444	down	yes
Q91VC9	0.8606	-0.2166	0.02423	no change	yes
Q9D1H9	1.59	0.669	0.03466	up	yes
A2AKH7	0.7627	-0.3908	0.03332	down	yes
Q9D898	0.5868	-0.7691	0.04184	down	yes
A0A0R4J0B3	1.293	0.3707	0.002784	up	yes
P47791	1.241	0.3115	0.02904	up	yes
Q8BVN8	0.6634	-0.592	0.04225	down	yes
P70698	0.8803	-0.1839	0.000531	no change	yes
Q3UW32	3.014	1.592	0.004266	up	yes
Q80UW8	1.414	0.4998	0.03883	up	yes
Q9DAA4	0.7219	-0.4701	0.004795	down	yes
O35345	0.7942	-0.3324	0.02022	down	yes
A2CEK3	1.137	0.1852	0.02782	no change	yes
P08074	3.018	1.594	0.000899	up	yes

Q99JI4	0.9044	-0.145	0.03522	no change	yes
E9QK36	0.7113	-0.4915	0.005463	down	yes
O08663	0.8696	-0.2016	0.04606	no change	yes
P97855	1.206	0.2702	0.02618	up	yes
Q3URM4	0.6792	-0.5581	0.03922	down	yes
Q8C297	1.241	0.3115	0.007124	up	yes
A0A1L7NR63	0.6218	-0.6855	0.005047	down	yes
Q9CX34	0.8766	-0.19	0.001535	no change	yes
Q6X6Z7	0.634	-0.6574	0.001784	down	yes
O35125	1.838	0.8781	0.02957	up	yes
Q04857	1.32	0.4005	0.004228	up	yes
Q3KNM9	1.421	0.5069	0.00064	up	yes
A0A0R4J1N0	0.4018	-1.315	0.003473	down	yes
A0A5F8MQC8	1.57	0.6508	0.03802	up	yes
A0A494BAX5	0.2329	-2.102	0.03395	down	yes
O35469	2.002	1.001	0.01462	up	yes
Q9CQA1	1.503	0.5878	0.04956	up	yes
Q8K010	0.6801	-0.5562	0.000198	down	yes
H3BJ30	1.476	0.5617	0.02137	up	yes
A0A286YDT6	2.079	1.056	0.02055	up	yes
Q3V2D0	0.7073	-0.4996	0.007892	down	yes
E9PUB7	0.822	-0.2828	0.02424	down	yes
A0A171EBK9	0.2928	-1.772	0.009152	down	yes
E9PZM4	0.3796	-1.397	0.01549	down	yes
Q8VC88	0.6858	-0.5441	0.000264	down	yes
P31230	0.6624	-0.5942	0.03619	down	yes
E9PV24	1.579	0.659	0.000387	up	yes
Q8K4Z5	1.282	0.3584	0.0479	up	yes
E9Q1G8	1.201	0.2642	0.01371	up	yes
P70670	0.7755	-0.3668	0.04039	down	yes
B7ZNX0	0.5681	-0.8158	0.004595	down	yes
A0A2I3BS41	0.7575	-0.4007	0.01116	down	yes
A0A0R4J0P1	1.268	0.3426	0.000889	up	yes
A0A0R4J1X9	0.8732	-0.1956	0.04113	no change	yes
Q80YD8	0.7469	-0.421	0.005781	down	yes
A0A668KL51	0.7745	-0.3687	0.0146	down	yes
Q8BK67	1.479	0.5646	0.006652	up	yes
Q8BU44	1.381	0.4657	0.006634	up	yes
Q8BGT5	1.246	0.3173	0.01875	up	yes
B1AR39	0.6507	-0.6199	0.006487	down	yes
A0A087WS16	1.353	0.4362	0.005932	up	yes
P62320	1.288	0.3651	0.02903	up	yes
Q3U7G3	0.7535	-0.4083	0.007145	down	yes

Q5DTJ5	44.02	5.46	0.01891	up	yes
Q921Y0	1.671	0.7407	0.02433	up	yes
A0A286YDA2	1.427	0.513	0.01043	up	yes
A2ATU9	1.247	0.3185	0.03572	up	yes
Q9CPQ3	1.254	0.3265	0.01655	up	yes
Q8BFY9	1.736	0.7958	0.00811	up	yes
Q9EST4	1.35	0.433	0.02849	up	yes
A2AFP4	0.8818	-0.1815	0.02296	no change	yes
Q3TBZ6	1.121	0.1648	0.0244	no change	yes
F6R587	0.8029	-0.3167	0.01965	down	yes
Q9DBY8	0.3127	-1.677	0.000576	down	yes
Q9D1M4	1.525	0.6088	0.03579	up	yes
Q5SW75	1.469	0.5548	0.01244	up	yes
Q6IR21	0.543	-0.881	0.000727	down	yes
Q8BPI1	2.09	1.064	0.001973	up	yes
P63085	0.3361	-1.573	0.002919	down	yes
Q9JM14	1.533	0.6164	0.001913	up	yes
A0A1B0GR37	0.5942	-0.751	0.006792	down	yes
Q8VCW8	2.328	1.219	0.007871	up	yes
P36916	0.7383	-0.4377	0.04472	down	yes
Q8R422	0.5785	-0.7896	0.01796	down	yes
A2A6U3	0.894	-0.1617	0.04085	no change	yes
Q3UW53	1.285	0.3618	0.005435	up	yes
P70190	0.5672	-0.8181	0.01266	down	yes
Q3TGS1	1.162	0.2166	0.01972	no change	yes
Q71RI9	1.364	0.4478	0.02103	up	yes
Q3TGE1	1.214	0.2798	0.02087	up	yes
Q8CDE2	0.5066	-0.9811	0.009669	down	yes
D3YV99	0.7423	-0.4299	0.03742	down	yes
Q9D8W6	1.232	0.301	0.03237	up	yes
B2RR12	1.202	0.2654	0.01985	up	yes
B2RUG3	1.416	0.5018	0.001341	up	yes
Q6ZQK4	0.8609	-0.2161	0.04764	no change	yes
Q99J36	1.259	0.3323	0.04678	up	yes
Q3UGP8	0.6782	-0.5602	0.03435	down	yes
Q8BFU3	1.41	0.4957	0.007567	up	yes
D3Z7D5	1.619	0.6951	0.001123	up	yes
Q3THZ3	3.549	1.827	0.01964	up	yes
Q9JJ94	0.4362	-1.197	0.009273	down	yes
P18654	0.5014	-0.996	0.01369	down	yes
Q3UJP5	1.153	0.2054	0.006752	no change	yes
E9QAQ5	1.239	0.3092	0.006433	up	yes
Q8CHX7	1.92	0.9411	0.0418	up	yes

D3Y2F8	2.311	1.209	0.001555	up	yes
D3Z1F2	0.6193	-0.6913	0.03118	down	yes
E9PXK7	1.358	0.4415	0.02738	up	yes
A0A0R4J0B2	0.5505	-0.8612	0.01517	down	yes
Q8BXF8	0.6098	-0.7136	0.002231	down	yes
Q5SSW2	0.5409	-0.8866	0.02939	down	yes
A2APB1	1.578	0.6581	0.008306	up	yes
Q9JI78	0.6382	-0.6479	0.01733	down	yes
A0A1Y7VJW9	1.637	0.7111	0.03545	up	yes
Q8BTI8	2.214	1.147	0.02459	up	yes
E9QAS4	1.35	0.433	0.02272	up	yes
P97379	1.367	0.451	0.01928	up	yes
A0A1D5RMD1	0.6275	-0.6723	0.01571	down	yes
A0A1Y7VLP0	0.6554	-0.6096	0.03925	down	yes
F6TCV0	0.5464	-0.872	0.02576	down	yes
A0A140LJB0	1.515	0.5993	0.003678	up	yes
Q3TCD4	1.617	0.6933	0.000576	up	yes
Q9D9H8	0.7504	-0.4143	0.03173	down	yes
Q8VEH6	0.6672	-0.5838	0.00592	down	yes
P62137	0.6844	-0.5471	0.02901	down	yes
D3Z184	0.5299	-0.9162	0.03257	down	yes
Q62087	1.305	0.384	0.02533	up	yes
A0A338P6G0	0.5977	-0.7425	0.0452	down	yes
Q6ZQK2	0.7741	-0.3694	0.00419	down	yes
Q3UYV9	1.434	0.52	0.03844	up	yes
Q9D1M5	1.245	0.3161	0.02976	up	yes
D3Z6P9	0.5563	-0.8461	0.03217	down	yes
A0A338P6B7	0.6131	-0.7058	0.03183	down	yes
Q61830	1.213	0.2786	0.03315	up	yes
Q3TZ45	1.656	0.7277	0.04247	up	yes
Q6PGH1	0.5452	-0.8751	0.001335	down	yes
P10639	2.596	1.376	0.01442	up	yes
Q3U0J1	2.268	1.181	0.006557	up	yes
A2AP40	0.9217	-0.1176	0.04785	no change	yes
Q9D4K5	0.6116	-0.7093	0.02214	down	yes
E9Q2W8	1.238	0.308	0.01271	up	yes
Q5F201	0.6972	-0.5204	0.03954	down	yes
A2AKD7	2.258	1.175	0.005166	up	yes
P50428	0.6426	-0.638	0.04722	down	yes
P39749	1.72	0.7824	0.03302	up	yes
A2A4J8	1.894	0.9214	0.04039	up	yes
A0A494B9D8	2.39	1.257	0.00346	up	yes
Q3TCZ2	1.803	0.8504	0.02368	up	yes

P37804	1.706	0.7706	0.00103	up	yes
F8WIT2	0.4322	-1.21	0.0073	down	yes
E9Q561	0.5825	-0.7797	0.00169	down	yes
Q8BWE1	1.561	0.6425	0.0191	up	yes
Q6PE01	1.114	0.1557	0.04724	no change	yes
B9EHI3	0.7872	-0.3452	0.03959	down	yes
A0A0R4J076	0.6692	-0.5795	0.01178	down	yes
O70169	0.7118	-0.4905	0.004204	down	yes
E9Q3A0	0.685	-0.5458	0.01088	down	yes
Q3UDM0	1.129	0.175	0.003715	no change	yes
B0R0D2	1.237	0.3068	0.01267	up	yes
A0A2X0SFE2	0.2569	-1.961	0.0433	down	yes
A0A2R8W6Z9	0.6727	-0.572	0.01446	down	yes
Q569U9	0.4559	-1.133	0.03944	down	yes
G3X9M0	1.987	0.9906	0.02442	up	yes
P98192	1.964	0.9738	0.001923	up	yes
Q8BPT6	0.773	-0.3715	0.0462	down	yes
Q80U95	1.807	0.8536	0.04379	up	yes
Q9JJA4	1.522	0.606	0.004222	up	yes
Q8CI32	0.7567	-0.4022	0.03901	down	yes
P53395	0.6196	-0.6906	0.01515	down	yes
P17427	1.389	0.474	0.006068	up	yes
D3Z3X5	1.982	0.987	0.000406	up	yes
O88792	0.8204	-0.2856	0.0353	down	yes
Q8CJF7	2.371	1.245	0.04166	up	yes
Q9CW46	2.894	1.533	0.04657	up	yes
Q04750	1.518	0.6022	0.04981	up	yes
A0A3Q4EG54	0.3578	-1.483	0.04142	down	yes
A0A571BF43	0.4784	-1.064	0.02695	down	yes
A2ACC6	2.339	1.226	0.007804	up	yes
Q9D5Y1	1.5	0.585	0.02935	up	yes
A0A068BGT0	0.5805	-0.7846	0.02572	down	yes
E9QPD7	1.654	0.726	0.008032	up	yes
Q8R3F5	0.5057	-0.9836	0.03055	down	yes
Q8CGC4	2.111	1.078	0.004843	up	yes
Q14CG3	0.4867	-1.039	0.03067	down	yes
A0A087WSP5	1.429	0.515	0.03907	up	yes
Q9JIK9	0.377	-1.407	0.02724	down	yes
P62077	0.8394	-0.2526	0.02631	no change	yes
Q3THG9	1.389	0.474	0.04347	up	yes
E9QLT0	0.6879	-0.5397	0.00958	down	yes
A0A1B0GS10	0.6552	-0.61	0.04641	down	yes
G5E8R4	0.7698	-0.3774	0.02552	down	yes

Q6GQT9	1.637	0.7111	0.008717	up	yes
Q3UVG3	0.2868	-1.802	0.009033	down	yes
Q78IK2	2.162	1.112	0.03061	up	yes
Q5SWU9	0.7709	-0.3754	0.01862	down	yes
Q3U487	0.1245	-3.006	0.00377	down	yes
Q3B7Z2	0.4221	-1.244	0.02574	down	yes
D3YWB8	0.6154	-0.7004	0.01729	down	yes
K3W4T3	0.6645	-0.5897	0.02968	down	yes
B1AWG4	0.6647	-0.5892	0.02802	down	yes
D3YYT1	1.317	0.3973	0.04983	up	yes
A0A286YDG5	1.276	0.3516	0.04689	up	yes
A0A0R4J079	2.768	1.469	0.0436	up	yes
D3Z0X3	0.2867	-1.802	0.005471	down	yes
Q8BGR9	0.2637	-1.923	0.003939	down	yes
G3UXH4	1.487	0.5724	0.02449	up	yes
Q497K5	0.5198	-0.944	0.009647	down	yes
D3YXZ3	1.632	0.7066	0.001168	up	yes
P70318	1.558	0.6397	0.03485	up	yes
A0A1L1SV59	0.1379	-2.858	0.02267	down	yes
Q1WWJ8	2.838	1.505	0.000693	up	yes
Q9CQF6	0.1698	-2.558	7.80E-05	down	yes
Q3TFA9	1.236	0.3057	0.0204	up	yes
Q3UJL7	1.489	0.5743	0.006464	up	yes
A1A4A7	0.6259	-0.676	0.02505	down	yes
A2RSX7	25.02	4.645	0.04291	up	yes
Q9QZ59	0.6286	-0.6698	0.04031	down	yes
Q8BZW8	4.621	2.208	0.01385	up	yes
A0A2R8W6H9	0.6748	-0.5675	0.02374	down	yes
Q9CQ71	0.8374	-0.256	0.02094	no change	yes
B2RR83	1.165	0.2203	0.04035	no change	yes
A0A0R4J2B0	2.826	1.499	0.02086	up	yes
F8VPP8	0.3348	-1.579	0.02717	down	yes
Q8CGF6	1.863	0.8976	0.0301	up	yes
Q922S5	0.5604	-0.8355	0.03625	down	yes
O70572	0.3612	-1.469	0.03608	down	yes
Q14AA6	0.6983	-0.5181	0.01519	down	yes
Q3TW96	0.4773	-1.067	0.03168	down	yes
Q9D4B2	1.96	0.9709	0.0211	up	yes
Q80YT3	0.5094	-0.9731	0.04249	down	yes
P62342	1.318	0.3984	0.03343	up	yes
E9PXT9	0.8059	-0.3113	0.01164	down	yes
O08582	1.383	0.4678	0.04166	up	yes
Q8VCG4	1.655	0.7268	0.006368	up	yes

P52019	0.6773	-0.5621	0.002539	down	yes
E9Q5L3	1.964	0.9738	0.00641	up	yes
O09130	0.6058	-0.7231	0.004947	down	yes
D9J2Z9	1.987	0.9906	0.02142	up	yes
Q9CX30	1.302	0.3807	0.005802	up	yes
Q91XW8	2.088	1.062	0.0151	up	yes
A0A0R4J0I9	1.341	0.4233	0.03544	up	yes
Q9CZX0	0.6529	-0.6151	0.01249	down	yes
B1Q2L7	0.4946	-1.016	0.01656	down	yes
Q3UDQ3	0.5727	-0.8041	0.04451	down	yes
G3X8T9	2.914	1.543	0.002994	up	yes
P97311	2.754	1.462	0.01341	up	yes
Q8VE99	0.6992	-0.5162	0.003341	down	yes
P55096	0.3401	-1.556	0.001184	down	yes
Q9JJB1	0.2942	-1.765	0.003397	down	yes
Q8C165	0.2883	-1.794	0.01074	down	yes
P34928	3.835	1.939	0.004351	up	yes
Q9DAS2	0.5438	-0.8789	0.00183	down	yes
P59235	0.4697	-1.09	0.01364	down	yes
Q3TJ21	1.636	0.7102	0.01977	up	yes
Q6DID5	1.546	0.6285	0.01262	up	yes
Q9D5V2	0.579	-0.7884	0.002435	down	yes
B1AY13	0.6677	-0.5827	0.01865	down	yes
D3YXN0	1.989	0.992	0.02439	up	yes
O88322	2.38	1.251	0.008648	up	yes
Q7M757	0.5188	-0.9467	0.03925	down	yes
A0A1B0GSM1	0.519	-0.9462	0.000409	down	yes
Q3U896	0.414	-1.272	0.009508	down	yes
E9QAS8	1.635	0.7093	0.02743	up	yes
Q9DC63	2.447	1.291	0.04003	up	yes
Q8BVD9	1.992	0.9942	0.03623	up	yes
Q7TSC1	1.228	0.2963	0.003717	up	yes
Q9D581	0.6903	-0.5347	0.01014	down	yes
Q8QZV7	0.5649	-0.8239	0.0352	down	yes
Q8BLD4	1.779	0.8311	0.008559	up	yes
Q62165	1.799	0.8472	0.005188	up	yes
A0A075B5P5	0.2878	-1.797	0.0088	down	yes
A0A0G2JEL6	0.2703	-1.887	0.003977	down	yes
A0A1W2P6X8	0.4364	-1.196	0.03025	down	yes
Q8VCD5	2.784	1.477	0.03262	up	yes
Q99L48	1.875	0.9069	0.03427	up	yes
A0A0N5E9G7	0.5545	-0.8507	0.02598	down	yes
P70388	2.468	1.303	0.03057	up	yes

Q3ULD5	1.649	0.7216	0.005679	up	yes
F6TVP2	0.7505	-0.4141	0.03454	down	yes
A6H6A9	1.628	0.7031	0.02133	up	yes
F8VQ05	0.4385	-1.189	0.004559	down	yes
A0A494BAQ9	0.4353	-1.2	0.008364	down	yes
A0A0A6YXS5	0.6444	-0.634	0.03131	down	yes
A0A1D5RLL5	0.4011	-1.318	0.005477	down	yes
Q8BK60	1.72	0.7824	0.03014	up	yes
Q80Y48	3.453	1.788	0.01146	up	yes
A0A2R8VHH1	0.5249	-0.9299	0.02456	down	yes
F7CGC9	1.833	0.8742	0.008956	up	yes
A0A3B2WBF8	1.849	0.8867	0.03583	up	yes
A0A1W2P6U8	1.937	0.9538	0.02102	up	yes
A7MCT3	0.4584	-1.125	0.03526	down	yes
Q6NXJ0	1.741	0.7999	0.02774	up	yes
A0A1D5RLC6	2.641	1.401	0.02619	up	yes
A0A140LJ61	0.823	-0.281	0.0197	down	yes
Q9CQ65	0.2857	-1.807	0.0129	down	yes
D3Z1Z2	3.77	1.915	0.01456	up	yes
A0A087WPY7	2.345	1.23	0.005992	up	yes
G3UW57	0.374	-1.419	0.04252	down	yes
A0A0R4J140	0.4819	-1.053	0.01738	down	yes
Q8K2M0	3.971	1.99	0.02752	up	yes
P00920	0.5552	-0.8489	0.003604	down	yes
B7ZNJ7	3.962	1.986	0.005003	up	yes
Q6ZPE2	0.3014	-1.73	0.02784	down	yes
Q8VI33	1.749	0.8065	0.02587	up	yes
B1ATV4	0.4283	-1.223	0.01989	down	yes
A0A0U1RP47	3.72	1.895	0.005863	up	yes
A0A494B953	1.525	0.6088	0.04822	up	yes
Q9CRB2	2.166	1.115	0.04959	up	yes
P0CG14	3.064	1.615	0.04091	up	yes
Q8BP00	0.6674	-0.5834	0.004066	down	yes
J3QNW4	2.524	1.336	0.01552	up	yes
D3YWN5	0.4205	-1.25	0.03067	down	yes
A0A087WQH8	2.048	1.034	0.02612	up	yes
Q922B5	2.835	1.503	0.03301	up	yes
A0A0H3XWX3	2.347	1.231	0.02371	up	yes
D3YYH0	3.18	1.669	0.02761	up	yes
E9PZH6	3.794	1.924	0.00539	up	yes
G3X9W3	0.5132	-0.9624	0.01223	down	yes
Q7TSS2	5.718	2.516	0.006176	up	yes
G3X937	0.6388	-0.6466	0.01418	down	yes

O70433	1.757	0.8131	0.04644	up	yes
A0A338P717	0.3339	-1.583	0.04099	down	yes
Q8VCU0	0.1233	-3.02	0.02249	down	yes
B1AU43	0.4583	-1.126	0.04436	down	yes
D3YVM8	4.001	2	0.000121	up	yes
Q5XJE5	0.1528	-2.71	0.03459	down	yes
Q9DB40	6.785	2.762	0.000649	up	yes
A0A0R4J1I6	14.99	3.906	0.03907	up	yes
A0A0A0MQE5	10.19	3.349	0.04306	up	yes
A0A494BBL5	0.001745	-9.163	0.009429	down	yes
B1AT92	503.2	8.974988	0	up	yes
B1AX35	503.2	8.974988	0	up	yes
B1AXI9	503.2	8.974988	0	up	yes
B1AXU1	503.2	8.974988	0	up	yes
B1AZ14	503.2	8.974988	0	up	yes
B2RRF3	503.2	8.974988	0	up	yes
A0A0A6YX50	503.2	8.974988	0	up	yes
B2RUG2	503.2	8.974988	0	up	yes
B2RXC2	503.2	8.974988	0	up	yes
B2RXC6	503.2	8.974988	0	up	yes
B2RY51	503.2	8.974988	0	up	yes
A0A0A6YXG0	503.2	8.974988	0	up	yes
B7ZWG0	503.2	8.974988	0	up	yes
B9EKC3	503.2	8.974988	0	up	yes
B9EKJ0	503.2	8.974988	0	up	yes
C0HK80	503.2	8.974988	0	up	yes
C9K0Z7	503.2	8.974988	0	up	yes
C9K100	503.2	8.974988	0	up	yes
D0EX61	503.2	8.974988	0	up	yes
D3YUP1	503.2	8.974988	0	up	yes
D3YUS5	503.2	8.974988	0	up	yes
A0A0G2JDE8	503.2	8.974988	0	up	yes
D3YXB7	503.2	8.974988	0	up	yes
D3Z0R8	503.2	8.974988	0	up	yes
D3Z2Z1	503.2	8.974988	0	up	yes
D3Z3D0	503.2	8.974988	0	up	yes
D6REH1	503.2	8.974988	0	up	yes
D6RHP8	503.2	8.974988	0	up	yes
D6RJ29	503.2	8.974988	0	up	yes
D6RJ77	503.2	8.974988	0	up	yes
E9PV60	503.2	8.974988	0	up	yes
E9PWY2	503.2	8.974988	0	up	yes
A0A0G2JFJ6	503.2	8.974988	0	up	yes

E9PXW9	503.2	8.974988	0	up	yes
E9Q0A7	503.2	8.974988	0	up	yes
E9Q0J5	503.2	8.974988	0	up	yes
E9Q0N0	503.2	8.974988	0	up	yes
E9Q3X0	503.2	8.974988	0	up	yes
E9Q3Z4	503.2	8.974988	0	up	yes
E9Q526	503.2	8.974988	0	up	yes
E9Q7E2	503.2	8.974988	0	up	yes
E9QLB8	503.2	8.974988	0	up	yes
F2Z472	503.2	8.974988	0	up	yes
F6UHS3	503.2	8.974988	0	up	yes
F6YRC2	503.2	8.974988	0	up	yes
F8VPZ3	503.2	8.974988	0	up	yes
F8WGT2	503.2	8.974988	0	up	yes
F8WHU5	503.2	8.974988	0	up	yes
A0A0J9YU56	503.2	8.974988	0	up	yes
G3UXB4	503.2	8.974988	0	up	yes
G3X8X0	503.2	8.974988	0	up	yes
G3X957	503.2	8.974988	0	up	yes
H3BLJ6	503.2	8.974988	0	up	yes
M0QWX4	503.2	8.974988	0	up	yes
A0A075B5P6	503.2	8.974988	0	up	yes
O54794	503.2	8.974988	0	up	yes
O55126	503.2	8.974988	0	up	yes
O55236	503.2	8.974988	0	up	yes
O70349	503.2	8.974988	0	up	yes
O70362	503.2	8.974988	0	up	yes
O70400	503.2	8.974988	0	up	yes
O88665	503.2	8.974988	0	up	yes
O88990	503.2	8.974988	0	up	yes
P06684	503.2	8.974988	0	up	yes
A0A0N4SVL4	503.2	8.974988	0	up	yes
P08414	503.2	8.974988	0	up	yes
P12265	503.2	8.974988	0	up	yes
A0A0N4SVS3	503.2	8.974988	0	up	yes
P17879	503.2	8.974988	0	up	yes
P26040	503.2	8.974988	0	up	yes
P35761	503.2	8.974988	0	up	yes
P36552	503.2	8.974988	0	up	yes
P55144	503.2	8.974988	0	up	yes
A0A0R4J050	503.2	8.974988	0	up	yes
P58854	503.2	8.974988	0	up	yes
A0A0R4J060	503.2	8.974988	0	up	yes

A0A0R4J071	503.2	8.974988	0	up	yes
P70280	503.2	8.974988	0	up	yes
P97477	503.2	8.974988	0	up	yes
Q09098	503.2	8.974988	0	up	yes
A0A0R4J0G1	503.2	8.974988	0	up	yes
Q3TBW9	503.2	8.974988	0	up	yes
Q3TFU7	503.2	8.974988	0	up	yes
Q3TIV9	503.2	8.974988	0	up	yes
Q3TJZ7	503.2	8.974988	0	up	yes
Q3TLJ6	503.2	8.974988	0	up	yes
A0A0R4J0S3	503.2	8.974988	0	up	yes
Q3TSA1	503.2	8.974988	0	up	yes
Q3U1N2	503.2	8.974988	0	up	yes
Q3UER4	503.2	8.974988	0	up	yes
Q3UGC1	503.2	8.974988	0	up	yes
Q3UHB1	503.2	8.974988	0	up	yes
Q3UK38	503.2	8.974988	0	up	yes
Q3UN62	503.2	8.974988	0	up	yes
Q3UPH1	503.2	8.974988	0	up	yes
Q3UQ84	503.2	8.974988	0	up	yes
Q3URR8	503.2	8.974988	0	up	yes
Q3URS9	503.2	8.974988	0	up	yes
Q3UYD7	503.2	8.974988	0	up	yes
Q3V1H1	503.2	8.974988	0	up	yes
Q3V3C7	503.2	8.974988	0	up	yes
Q497Z4	503.2	8.974988	0	up	yes
Q4FZF2	503.2	8.974988	0	up	yes
A0A0R4J1K1	503.2	8.974988	0	up	yes
Q5IR70	503.2	8.974988	0	up	yes
Q5M8M3	503.2	8.974988	0	up	yes
Q5SVR0	503.2	8.974988	0	up	yes
Q5U5M8	503.2	8.974988	0	up	yes
Q61129	503.2	8.974988	0	up	yes
Q62086	503.2	8.974988	0	up	yes
Q62209	503.2	8.974988	0	up	yes
Q62210	503.2	8.974988	0	up	yes
Q63829	503.2	8.974988	0	up	yes
Q69ZG0	503.2	8.974988	0	up	yes
Q69ZM3	503.2	8.974988	0	up	yes
Q69ZR9	503.2	8.974988	0	up	yes
Q69ZW3	503.2	8.974988	0	up	yes
Q6P3Y6	503.2	8.974988	0	up	yes
Q6P9P6	503.2	8.974988	0	up	yes

Q6WIZ7	503.2	8.974988	0	up	yes
Q6XPS7	503.2	8.974988	0	up	yes
Q7TNK1	503.2	8.974988	0	up	yes
Q7TPD5	503.2	8.974988	0	up	yes
Q7TSV6	503.2	8.974988	0	up	yes
Q80UY1	503.2	8.974988	0	up	yes
Q80W22	503.2	8.974988	0	up	yes
Q80W32	503.2	8.974988	0	up	yes
Q80W71	503.2	8.974988	0	up	yes
Q80YD1	503.2	8.974988	0	up	yes
Q80YQ8	503.2	8.974988	0	up	yes
Q8BHF7	503.2	8.974988	0	up	yes
Q8BKT8	503.2	8.974988	0	up	yes
A0A0U1RP69	503.2	8.974988	0	up	yes
Q8BNU0	503.2	8.974988	0	up	yes
Q8BP48	503.2	8.974988	0	up	yes
Q8BPE4	503.2	8.974988	0	up	yes
Q8BUE4	503.2	8.974988	0	up	yes
Q8BWY4	503.2	8.974988	0	up	yes
Q8C0E2	503.2	8.974988	0	up	yes
A0A140LHE6	503.2	8.974988	0	up	yes
Q8C5S7	503.2	8.974988	0	up	yes
Q8C6S9	503.2	8.974988	0	up	yes
Q8CCI5	503.2	8.974988	0	up	yes
Q8CGF5	503.2	8.974988	0	up	yes
Q8CHI8	503.2	8.974988	0	up	yes
Q8CHT3	503.2	8.974988	0	up	yes
Q8CIY6	503.2	8.974988	0	up	yes
Q8JZR4	503.2	8.974988	0	up	yes
Q8K0Z7	503.2	8.974988	0	up	yes
Q8R4N0	503.2	8.974988	0	up	yes
Q8VBW5	503.2	8.974988	0	up	yes
A0A140LJ80	503.2	8.974988	0	up	yes
Q8VGK8	503.2	8.974988	0	up	yes
Q91WE6	503.2	8.974988	0	up	yes
Q91WT7	503.2	8.974988	0	up	yes
Q91XU3	503.2	8.974988	0	up	yes
Q99K28	503.2	8.974988	0	up	yes
Q99MP8	503.2	8.974988	0	up	yes
Q99N92	503.2	8.974988	0	up	yes
Q9CPR5	503.2	8.974988	0	up	yes
Q9CPT0	503.2	8.974988	0	up	yes
Q9CQ37	503.2	8.974988	0	up	yes

Q9CR05	503.2	8.974988	0	up	yes
Q9CR27	503.2	8.974988	0	up	yes
Q9CRD2	503.2	8.974988	0	up	yes
Q9D0I4	503.2	8.974988	0	up	yes
Q9D1E5	503.2	8.974988	0	up	yes
Q9D3S3	503.2	8.974988	0	up	yes
Q9D4I9	503.2	8.974988	0	up	yes
Q9D5T7	503.2	8.974988	0	up	yes
Q9D6W8	503.2	8.974988	0	up	yes
Q9D8B3	503.2	8.974988	0	up	yes
Q9DA60	503.2	8.974988	0	up	yes
A0A1B0GSV6	503.2	8.974988	0	up	yes
Q9DAM7	503.2	8.974988	0	up	yes
Q9DAU1	503.2	8.974988	0	up	yes
Q9DB94	503.2	8.974988	0	up	yes
Q9DBE9	503.2	8.974988	0	up	yes
Q9DBR0	503.2	8.974988	0	up	yes
Q9DBW3	503.2	8.974988	0	up	yes
Q9ERB0	503.2	8.974988	0	up	yes
Q9ES46	503.2	8.974988	0	up	yes
Q9JHS9	503.2	8.974988	0	up	yes
Q9QYI6	503.2	8.974988	0	up	yes
Q9QYI7	503.2	8.974988	0	up	yes
Q9R207	503.2	8.974988	0	up	yes
Q9WTJ8	503.2	8.974988	0	up	yes
Q9WVP6	503.2	8.974988	0	up	yes
Q9Z277	503.2	8.974988	0	up	yes
A0A1L1SRK1	503.2	8.974988	0	up	yes
A0A1L1SU27	503.2	8.974988	0	up	yes
A0A087WQS9	503.2	8.974988	0	up	yes
A0A1W2P7G8	503.2	8.974988	0	up	yes
A0A1W2P8C6	503.2	8.974988	0	up	yes
A0A1Y7VIW8	503.2	8.974988	0	up	yes
A0A087WRM2	503.2	8.974988	0	up	yes
A0A2I3BS49	503.2	8.974988	0	up	yes
A0A2R8VHH6	503.2	8.974988	0	up	yes
A0A2R8VI68	503.2	8.974988	0	up	yes
A0A2R8VKL5	503.2	8.974988	0	up	yes
A0A338P6X6	503.2	8.974988	0	up	yes
A0A3B2W3Z0	503.2	8.974988	0	up	yes
A0A3B2W458	503.2	8.974988	0	up	yes
A0A3B2W887	503.2	8.974988	0	up	yes
A0A3B2WBH9	503.2	8.974988	0	up	yes

A0A3B2WD93	503.2	8.974988	0	up	yes
A0A494BAK4	503.2	8.974988	0	up	yes
A0A494BBF7	503.2	8.974988	0	up	yes
A0A5F8MPB5	503.2	8.974988	0	up	yes
A0A5F8MPP4	503.2	8.974988	0	up	yes
A2AC16	503.2	8.974988	0	up	yes
A2ACM0	503.2	8.974988	0	up	yes
A2ADH1	503.2	8.974988	0	up	yes
A2AE98	503.2	8.974988	0	up	yes
A2AHW8	503.2	8.974988	0	up	yes
A2AKV6	503.2	8.974988	0	up	yes
A2AMY5	503.2	8.974988	0	up	yes
A2AN61	503.2	8.974988	0	up	yes
A2AUF9	503.2	8.974988	0	up	yes
A2AWN8	503.2	8.974988	0	up	yes
A2BIN1	503.2	8.974988	0	up	yes
A3KBF5	503.2	8.974988	0	up	yes
A3KFU5	503.2	8.974988	0	up	yes
A0A0A6YW89	503.2	8.974988	0	up	yes
B0R029	1.00E-05	-16.61	0	down	yes
B1AR69	1.00E-05	-16.61	0	down	yes
B1AT32	1.00E-05	-16.61	0	down	yes
B1AUN0	1.00E-05	-16.61	0	down	yes
B2LVG5	1.00E-05	-16.61	0	down	yes
B2RRE2	1.00E-05	-16.61	0	down	yes
B2RX00	1.00E-05	-16.61	0	down	yes
B8JJB2	1.00E-05	-16.61	0	down	yes
B9EI20	1.00E-05	-16.61	0	down	yes
A0A0A6YY53	1.00E-05	-16.61	0	down	yes
A0A0B4J1E9	1.00E-05	-16.61	0	down	yes
D3YWF8	1.00E-05	-16.61	0	down	yes
D3YXD2	1.00E-05	-16.61	0	down	yes
A0A0G2JEG0	1.00E-05	-16.61	0	down	yes
D3Z6J3	1.00E-05	-16.61	0	down	yes
D3Z6W7	1.00E-05	-16.61	0	down	yes
E0CX19	1.00E-05	-16.61	0	down	yes
E0CX98	1.00E-05	-16.61	0	down	yes
E5RKB6	1.00E-05	-16.61	0	down	yes
E7CHD7	1.00E-05	-16.61	0	down	yes
E9PUA2	1.00E-05	-16.61	0	down	yes
A0A0G2JFU3	1.00E-05	-16.61	0	down	yes
E9PZI9	1.00E-05	-16.61	0	down	yes
E9Q109	1.00E-05	-16.61	0	down	yes

E9Q4U7	1.00E-05	-16.61	0	down	yes
E9Q6J8	1.00E-05	-16.61	0	down	yes
E9Q717	1.00E-05	-16.61	0	down	yes
E9QNV2	1.00E-05	-16.61	0	down	yes
F6UTK3	1.00E-05	-16.61	0	down	yes
F6X0V1	1.00E-05	-16.61	0	down	yes
F6X4L9	1.00E-05	-16.61	0	down	yes
F8QZ85	1.00E-05	-16.61	0	down	yes
A0A0J9YTV5	1.00E-05	-16.61	0	down	yes
F8VPR1	1.00E-05	-16.61	0	down	yes
F8WGQ9	1.00E-05	-16.61	0	down	yes
G3UXZ2	1.00E-05	-16.61	0	down	yes
G3UYX5	1.00E-05	-16.61	0	down	yes
A0A0J9YU88	1.00E-05	-16.61	0	down	yes
G5E885	1.00E-05	-16.61	0	down	yes
G9M4M6	1.00E-05	-16.61	0	down	yes
H9LAN6	1.00E-05	-16.61	0	down	yes
O08797	1.00E-05	-16.61	0	down	yes
A0A0N4SV29	1.00E-05	-16.61	0	down	yes
O88502	1.00E-05	-16.61	0	down	yes
P35831	1.00E-05	-16.61	0	down	yes
P50543	1.00E-05	-16.61	0	down	yes
P52795	1.00E-05	-16.61	0	down	yes
P62331	1.00E-05	-16.61	0	down	yes
P62340	1.00E-05	-16.61	0	down	yes
P97434	1.00E-05	-16.61	0	down	yes
Q00422	1.00E-05	-16.61	0	down	yes
Q05A80	1.00E-05	-16.61	0	down	yes
Q3TBV3	1.00E-05	-16.61	0	down	yes
A0A0R4J0J5	1.00E-05	-16.61	0	down	yes
Q3TC98	1.00E-05	-16.61	0	down	yes
Q3TL58	1.00E-05	-16.61	0	down	yes
Q3TMP1	1.00E-05	-16.61	0	down	yes
Q3TN15	1.00E-05	-16.61	0	down	yes
Q3TRF3	1.00E-05	-16.61	0	down	yes
A0A0R4J0X4	1.00E-05	-16.61	0	down	yes
Q3UEG9	1.00E-05	-16.61	0	down	yes
Q3UJY3	1.00E-05	-16.61	0	down	yes
Q3V037	1.00E-05	-16.61	0	down	yes
Q4FZC9	1.00E-05	-16.61	0	down	yes
Q5Szt7	1.00E-05	-16.61	0	down	yes
Q60738	1.00E-05	-16.61	0	down	yes
Q61391	1.00E-05	-16.61	0	down	yes

Q69ZF3	1.00E-05	-16.61	0	down	yes
Q6PCM2	1.00E-05	-16.61	0	down	yes
A0A0R4J254	1.00E-05	-16.61	0	down	yes
Q6ZQ14	1.00E-05	-16.61	0	down	yes
Q6ZQF0	1.00E-05	-16.61	0	down	yes
Q7TNW3	1.00E-05	-16.61	0	down	yes
Q80SY6	1.00E-05	-16.61	0	down	yes
Q80TR8	1.00E-05	-16.61	0	down	yes
Q80U19	1.00E-05	-16.61	0	down	yes
Q80VT5	1.00E-05	-16.61	0	down	yes
A0A0U1RNG7	1.00E-05	-16.61	0	down	yes
Q80Y84	1.00E-05	-16.61	0	down	yes
Q80ZU5	1.00E-05	-16.61	0	down	yes
Q8BPS4	1.00E-05	-16.61	0	down	yes
Q8BYP6	1.00E-05	-16.61	0	down	yes
Q8C2E7	1.00E-05	-16.61	0	down	yes
Q8C9M6	1.00E-05	-16.61	0	down	yes
Q8CGY8	1.00E-05	-16.61	0	down	yes
A0A140LIU8	1.00E-05	-16.61	0	down	yes
Q8K3I8	1.00E-05	-16.61	0	down	yes
Q8K4K6	1.00E-05	-16.61	0	down	yes
A0A140LJ55	1.00E-05	-16.61	0	down	yes
Q8VCS6	1.00E-05	-16.61	0	down	yes
Q91W18	1.00E-05	-16.61	0	down	yes
Q91Y44	1.00E-05	-16.61	0	down	yes
Q91YD3	1.00E-05	-16.61	0	down	yes
A0A140T8T7	1.00E-05	-16.61	0	down	yes
Q922F4	1.00E-05	-16.61	0	down	yes
Q925E7	1.00E-05	-16.61	0	down	yes
Q99JF5	1.00E-05	-16.61	0	down	yes
Q99JP7	1.00E-05	-16.61	0	down	yes
Q99KG3	1.00E-05	-16.61	0	down	yes
Q99KN2	1.00E-05	-16.61	0	down	yes
Q99LZ3	1.00E-05	-16.61	0	down	yes
A0A1B0GR51	1.00E-05	-16.61	0	down	yes
Q9CXA2	1.00E-05	-16.61	0	down	yes
Q9CZX7	1.00E-05	-16.61	0	down	yes
Q9D009	1.00E-05	-16.61	0	down	yes
Q9D024	1.00E-05	-16.61	0	down	yes
A0A1B0GRU3	1.00E-05	-16.61	0	down	yes
Q9D4I8	1.00E-05	-16.61	0	down	yes
Q9D6S7	1.00E-05	-16.61	0	down	yes
Q9D786	1.00E-05	-16.61	0	down	yes

A8DUK4	0.8867	-0.1735	0.1008	no change	no
P07901	0.914	-0.1297	0.07188	no change	no
P63017	0.8871	-0.1728	0.1006	no change	no
P68369	1.01	0.01436	0.7939	no change	no
P15864	1.128	0.1738	0.08889	no change	no
A0A0A6YW67	0.9609	-0.05754	0.3	no change	no
Biognosys iRT-Kit_WR_fusion	0.8594	-0.2186	0.1153	no change	no
P68033	0.9654	-0.0508	0.5549	no change	no
P27773	0.9724	-0.04038	0.6741	no change	no
P63101	0.9759	-0.03519	0.6726	no change	no
I7HFT9	1.176	0.2339	0.5792	no change	no
P68372	1.001	0.001442	0.9743	no change	no
Q9DA79	1.008	0.0115	0.9267	no change	no
P21300	0.9916	-0.01217	0.8807	no change	no
A0A1W2P7H9	1.249	0.3208	0.3359	up	no
P26883	1.022	0.0314	0.4777	no change	no
P08113	0.9802	-0.02885	0.5034	no change	no
A2BDX3	1.049	0.06901	0.3238	no change	no
D3Z6F5	1.16	0.2141	0.2025	no change	no
O70325	0.8864	-0.174	0.3207	no change	no
P62259	0.9762	-0.03475	0.7931	no change	no
P20029	0.9466	-0.07917	0.1321	no change	no
P14211	0.9421	-0.08605	0.187	no change	no
P52480	0.9998	-0.000289	0.9975	no change	no
P48962	1.154	0.2066	0.05469	no change	no
P62317	1.061	0.08542	0.6291	no change	no
F6T4M4	1.278	0.3539	0.5984	up	no
Q9CQV8	1.113	0.1545	0.1044	no change	no
A0A0G2JDL9	1.314	0.394	0.0737	up	no
P80315	0.9456	-0.0807	0.1455	no change	no
C5H0E9	1.315	0.3951	0.07696	up	no
Q8CHP8	1.061	0.08542	0.4605	no change	no
Q64433	1.162	0.2166	0.1757	no change	no
P08228	1.116	0.1583	0.33	no change	no
P24472	1.047	0.06626	0.7609	no change	no
A0A0G2JEU1	1.107	0.1467	0.05107	no change	no

P43024	0.948	-0.07704	0.4583	no change	no
P29341	1.012	0.01721	0.833	no change	no
Q01853	1.062	0.08678	0.1073	no change	no
P45376	1.018	0.02574	0.765	no change	no
O70250	0.9018	-0.1491	0.09033	no change	no
O35963	1.152	0.2041	0.0965	no change	no
Q9R0P9	0.9175	-0.1242	0.05847	no change	no
D3Z1Z8	1.007	0.01006	0.8805	no change	no
P62827	1.03	0.04264	0.4796	no change	no
A2A813	1.949	0.9627	0.3727	up	no
Q8BVP2	0.9268	-0.1097	0.2239	no change	no
P35979	1.123	0.1674	0.2541	no change	no
Q91XV3	0.8241	-0.2791	0.5305	down	no
P12787	1.036	0.05102	0.4998	no change	no
O35215	0.954	-0.06794	0.8035	no change	no
A0A1L1SQA8	1.108	0.148	0.4576	no change	no
A0A6I8MX27	0.7111	-0.4919	0.2568	down	no
E9PUQ7	1.452	0.538	0.1027	up	no
B7ZP22	0.6355	-0.654	0.2007	down	no
O35737	1.082	0.1137	0.132	no change	no
E9QJT5	0.8566	-0.2233	0.3656	no change	no
Q9CPQ1	0.9101	-0.1359	0.2719	no change	no
P58252	1.052	0.07313	0.6947	no change	no
P67984	1.039	0.0552	0.6886	no change	no
A0A0N4SV00	0.9877	-0.01786	0.6374	no change	no
P27786	0.9799	-0.02929	0.5247	no change	no
P61358	1.081	0.1124	0.6033	no change	no
A0A1Y7VM65	0.7144	-0.4852	0.5911	down	no
P56480	0.8341	-0.2617	0.05061	no change	no
Q3ULN6	1.051	0.07176	0.6731	no change	no
Q3V132	0.9868	-0.01917	0.7816	no change	no
P29121	0.8042	-0.3144	0.3989	down	no
O35326	1.292	0.3696	0.07318	up	no
P06801	0.9858	-0.02063	0.3664	no change	no
J3QM80	0.7945	-0.3319	0.4585	down	no
P17742	0.9701	-0.04379	0.5845	no change	no
A6X925	1.18	0.2388	0.3036	no change	no
D3Z6Z0	1.582	0.6617	0.1246	up	no
B1AU75	1.011	0.01578	0.836	no change	no
P42932	0.8963	-0.1579	0.07477	no change	no
H7BX95	1.051	0.07176	0.6289	no change	no
Q3TI62	0.9043	-0.1451	0.08715	no change	no
D3YY09	0.96	-0.05889	0.2464	no change	no

Q8C0M9	0.9735	-0.03875	0.8075	no change	no
Q9DAE2	1.037	0.05242	0.2171	no change	no
B2RPU8	0.9758	-0.03534	0.6319	no change	no
P22599	1.167	0.2228	0.2375	no change	no
O08997	0.9633	-0.05394	0.2635	no change	no
P01942	0.6622	-0.5947	0.06654	down	no
Q6A022	0.4471	-1.161	0.1483	down	no
A6ZI46	0.9821	-0.02606	0.9614	no change	no
A0A0N4SV66	0.9479	-0.07719	0.7972	no change	no
P63038	0.8975	-0.156	0.5035	no change	no
O55023	1.241	0.3115	0.2414	up	no
J3QMG3	0.8644	-0.2102	0.07228	no change	no
J3QQ47	1.031	0.04404	0.676	no change	no
Q00623	1.217	0.2833	0.06633	up	no
A0A1B0GS70	0.9365	-0.09465	0.5851	no change	no
A0A0A0MQD2	0.9307	-0.1036	0.4998	no change	no
P62754	0.9736	-0.0386	0.3917	no change	no
Q3V1Z5	1.016	0.0229	0.5917	no change	no
Q6NWV5	1.132	0.1789	0.3932	no change	no
P80316	0.9965	-0.005058	0.8761	no change	no
D3Z4A4	1.04	0.05658	0.5136	no change	no
P62301	1.059	0.0827	0.6101	no change	no
F8WJ41	1.077	0.107	0.2106	no change	no
P61205	1.22	0.2869	0.1939	up	no
P11983	0.9775	-0.03283	0.2467	no change	no
A0A0G2JE32	0.961	-0.05739	0.3415	no change	no
A0A6I8MW6	0.7384	-0.4375	0.05178	down	no
A0A2I3BQF4	0.8988	-0.1539	0.2031	no change	no
A0A494B9Z0	1.259	0.3323	0.4754	up	no
P14115	1.001	0.001442	0.9865	no change	no
Q8C1L7	1.089	0.123	0.1467	no change	no
P48794	10.14	3.342	0.3961	up	no
P62908	1.14	0.189	0.05731	no change	no
P47955	0.8368	-0.257	0.5178	no change	no
Q6ZQ38	0.9145	-0.1289	0.05033	no change	no
A0A1B0GR08	0.03847	-4.7	0.1819	down	no
Q9JKR6	0.9474	-0.07795	0.2158	no change	no
P62918	0.9099	-0.1362	0.1223	no change	no
B7ZMS3	1.004	0.005759	0.9615	no change	no
Q9D4V7	0.7165	-0.481	0.5962	down	no
D3YW86	0.6816	-0.553	0.4402	down	no
P68254	0.9138	-0.13	0.178	no change	no
Q3TVK3	1.063	0.08814	0.5255	no change	no

P62715	1.025	0.03562	0.2119	no change	no
Q3UTZ4	0.8242	-0.2789	0.09536	down	no
P52194	0.8793	-0.1856	0.4684	no change	no
A0A1B0GX25	1.673	0.7424	0.273	up	no
A0A0A6YWC8	1.048	0.06764	0.8076	no change	no
Q9JHU9	0.8907	-0.167	0.4487	no change	no
A0A1B0GRR3	0.8706	-0.1999	0.135	no change	no
Q3V3N7	0.8006	-0.3208	0.6955	down	no
P51881	0.9834	-0.02415	0.6935	no change	no
Q9ES97	1.1	0.1375	0.1227	no change	no
F6XI62	0.836	-0.2584	0.1166	no change	no
P35700	1.017	0.02432	0.9127	no change	no
P61750	0.9711	-0.04231	0.6851	no change	no
O88844	1.073	0.1017	0.1222	no change	no
A0A0A0MQF6	1.024	0.03422	0.8028	no change	no
Q3U6C7	0.9708	-0.04275	0.6688	no change	no
A0A087WS46	1.158	0.2116	0.1288	no change	no
A0A0R4J1P2	0.969	-0.04543	0.4458	no change	no
A0A2R8VHP9	0.9998	-0.000289	0.9957	no change	no
O08709	0.9715	-0.04171	0.3192	no change	no
P19536	0.6983	-0.5181	0.1418	down	no
P17047	0.8564	-0.2236	0.1226	no change	no
A0A494B9A7	1.164	0.2191	0.2189	no change	no
A0A338P702	0.9556	-0.06552	0.8872	no change	no
P60335	0.8958	-0.1588	0.08242	no change	no
Q8CJI4	0.8992	-0.1533	0.1667	no change	no
A0A0A0MQM2	0.9382	-0.09203	0.1509	no change	no
P24815	1.085	0.1177	0.1578	no change	no
A0A0R4J052	0.9657	-0.05035	0.602	no change	no
D3YVC1	0.9667	-0.04886	0.6427	no change	no
H3BJQ7	0.9218	-0.1175	0.1477	no change	no
B2M1R6	0.9072	-0.1405	0.5398	no change	no
A0A087WPM0	1.291	0.3685	0.3518	up	no
A0A1B0GRJ0	0.7193	-0.4753	0.6807	down	no
Q9CQ43	0.9343	-0.09804	0.05446	no change	no
P11499	1.13	0.1763	0.3137	no change	no
A2AC29	0.9817	-0.02665	0.8296	no change	no
A2BH06	0.6964	-0.522	0.3468	down	no
A0A023T778	0.9927	-0.01057	0.9792	no change	no
P11378	0.5918	-0.7568	0.4609	down	no
A0A5F8MPN8	1.182	0.2412	0.4995	no change	no
Q5SXR6	0.8791	-0.1859	0.08603	no change	no
G3UX74	1.046	0.06488	0.1645	no change	no

Q3UD53	0.957	-0.06341	0.5525	no change	no
Q9JHU4	1	0	0.9996	no change	no
P68040	0.9762	-0.03475	0.2808	no change	no
Q8K2C9	1.035	0.04963	0.447	no change	no
P46471	0.7182	-0.4775	0.05574	down	no
P13745	1.166	0.2216	0.09769	no change	no
Q60736	1.045	0.0635	0.6914	no change	no
P14869	0.9112	-0.1342	0.1994	no change	no
A0A1B0GQU8	0.9815	-0.02694	0.8947	no change	no
A0A140LHA2	1.284	0.3606	0.07961	up	no
D3Z4J1	1.324	0.4049	0.4644	up	no
P60843	0.8433	-0.2459	0.1781	no change	no
Q99KI0	1.017	0.02432	0.8091	no change	no
A1L333	0.9625	-0.05514	0.6431	no change	no
P14131	1.107	0.1467	0.1395	no change	no
A0A0A0MQM0	0.442	-1.178	0.07044	down	no
A0A1B0GQW6	1.325	0.406	0.108	up	no
Q3UJW9	1.382	0.4668	0.05855	up	no
Q9D8N0	0.9699	-0.04409	0.8253	no change	no
B7ZNM3	0.9904	-0.01392	0.7637	no change	no
Q99PU5	1.144	0.1941	0.1572	no change	no
D3YTS1	0.9719	-0.04112	0.4725	no change	no
Q8R1S0	0.4579	-1.127	0.3579	down	no
P45591	1.044	0.06212	0.402	no change	no
Q3TPL7	0.8502	-0.2341	0.06626	no change	no
F8WHP8	1.074	0.103	0.1537	no change	no
P15105	1.183	0.2425	0.08423	no change	no
A0A3Q4EH04	1.013	0.01863	0.7276	no change	no
P10852	0.9563	-0.06446	0.3457	no change	no
Q6IQX7	1.206	0.2702	0.6232	up	no
Q3TG45	1.269	0.3437	0.06348	up	no
Q8BJX0	1.025	0.03562	0.3994	no change	no
A0A1L1SVK0	0.8627	-0.2131	0.2732	no change	no
A0A2R8VHK1	0.8652	-0.2089	0.254	no change	no
P38647	0.7721	-0.3731	0.5304	down	no
P21550	0.5972	-0.7437	0.2097	down	no
G5E8M7	1.043	0.06074	0.2209	no change	no
P11438	0.9236	-0.1147	0.159	no change	no
P27659	0.9617	-0.05634	0.1881	no change	no
P61804	1.038	0.05381	0.4819	no change	no
P35564	1.113	0.1545	0.1947	no change	no
P30416	0.9243	-0.1136	0.07506	no change	no
G5E924	1.15	0.2016	0.281	no change	no

Q9WUM5	1.21	0.275	0.1904	up	no
A0A1L1SSX7	0.9536	-0.06854	0.8227	no change	no
F8WJK8	1.036	0.05102	0.8223	no change	no
Q8R1I1	1.095	0.1309	0.2237	no change	no
A0A0R4J0X7	0.9231	-0.1154	0.08832	no change	no
A0A0G2JES3	0.9307	-0.1036	0.5884	no change	no
Q9CWP4	0.9734	-0.0389	0.2708	no change	no
P70168	1.031	0.04404	0.7319	no change	no
Q3V086	1.083	0.115	0.1351	no change	no
A6H656	0.7159	-0.4822	0.1194	down	no
Q3UKH3	1.181	0.24	0.3802	no change	no
P47963	0.7553	-0.4049	0.4846	down	no
P63037	0.978	-0.03209	0.7584	no change	no
Q8BMF4	0.9417	-0.08666	0.2538	no change	no
A0A494BBG8	1.1	0.1375	0.05055	no change	no
E9Q1T9	0.8719	-0.1978	0.139	no change	no
P97351	1.08	0.111	0.2393	no change	no
G3XA14	1.215	0.281	0.09758	up	no
A0A1Y7VIZ6	0.9092	-0.1373	0.129	no change	no
O35593	1.226	0.294	0.52	up	no
Q8BFZ3	1.296	0.3741	0.4552	up	no
Q8K190	0.8206	-0.2852	0.08387	down	no
P17751	1.047	0.06626	0.2378	no change	no
P80314	0.9523	-0.07051	0.6048	no change	no
A0A0R4IZY0	0.9311	-0.103	0.2744	no change	no
D3Z7Q5	1.009	0.01293	0.874	no change	no
P09405	0.9983	-0.002455	0.9798	no change	no
Q3THL7	0.9844	-0.02268	0.6789	no change	no
A0A5F8MPT6	0.268	-1.9	0.1551	down	no
P10126	0.709	-0.4961	0.1303	down	no
A2ALL9	1.144	0.1941	0.1938	no change	no
Q8K4K1	1.003	0.004322	0.9734	no change	no
A0A1S6GWI9	0.9903	-0.01406	0.6998	no change	no
A0A5K1VVS7	0.38	-1.396	0.4287	down	no
Q3TYK4	0.8168	-0.2919	0.5957	down	no
Q06890	1.024	0.03422	0.8333	no change	no
A2BI12	1.004	0.005759	0.9724	no change	no
E9PX95	0.9246	-0.1131	0.9273	no change	no
E9PW69	1.19	0.251	0.5456	no change	no
G8DXR6	1.019	0.02715	0.8999	no change	no
F8SGQ5	0.6582	-0.6034	0.09192	down	no
Q0QEZ4	1.112	0.1532	0.7345	no change	no
A0A0R4J198	0.7666	-0.3835	0.4986	down	no

A2AMW0	0.9817	-0.02665	0.9557	no change	no
A2A9Q2	0.9654	-0.0508	0.5693	no change	no
Q3UW40	1.076	0.1057	0.2441	no change	no
A0A1L1SU87	0.8718	-0.1979	0.5146	no change	no
D3YYM6	1.046	0.06488	0.3083	no change	no
Q6NY00	0.8432	-0.2461	0.1482	no change	no
Q7TPT7	0.9758	-0.03534	0.8392	no change	no
D3YVF4	1.033	0.04684	0.8341	no change	no
Q3UA53	1.099	0.1362	0.1299	no change	no
Q6ZWX6	1.382	0.4668	0.07577	up	no
P63280	1.046	0.06488	0.9159	no change	no
A2AFW6	0.8131	-0.2985	0.154	down	no
A0A1B0GR50	0.9534	-0.06885	0.8494	no change	no
O09035	0.9125	-0.1321	0.1325	no change	no
A0A0A6YX26	1.123	0.1674	0.2663	no change	no
P99026	0.9155	-0.1274	0.4188	no change	no
G3X8P6	0.9277	-0.1083	0.1124	no change	no
F8WIU1	0.9082	-0.1389	0.06612	no change	no
Q9D379	0.8076	-0.3083	0.1527	down	no
P16460	0.8166	-0.2923	0.4931	down	no
D3Z4X1	0.9789	-0.03077	0.6627	no change	no
Q8BVP6	0.8635	-0.2117	0.4302	no change	no
A0A075DC90	2.632	1.396	0.1238	up	no
P08249	1.103	0.1414	0.4925	no change	no
Q20BD0	1.033	0.04684	0.682	no change	no
P54818	1.064	0.0895	0.6578	no change	no
O08749	0.9214	-0.1181	0.7698	no change	no
D3YWF6	1.268	0.3426	0.1557	up	no
Q8CG50	1.367	0.451	0.1389	up	no
Q9CQ69	1.641	0.7146	0.2135	up	no
Q8CCK0	0.6814	-0.5534	0.6651	down	no
P20108	1.193	0.2546	0.1375	no change	no
P63168	1.009	0.01293	0.9065	no change	no
P07759	0.9238	-0.1143	0.8141	no change	no
Q9CQZ1	1.1	0.1375	0.2341	no change	no
Q80YT5	0.8564	-0.2236	0.1493	no change	no
B1ARA3	0.7201	-0.4737	0.2476	down	no
P30275	0.5472	-0.8699	0.4713	down	no
G3UZ26	0.9414	-0.08712	0.3163	no change	no
Q9CWS0	1.012	0.01721	0.7379	no change	no
Q9R1T2	1.24	0.3103	0.1761	up	no
Q80WK4	1.033	0.04684	0.9795	no change	no
D3YVP5	1.429	0.515	0.4287	up	no

Q8R084	1.108	0.148	0.4195	no change	no
Q3THQ5	1.02	0.02857	0.9337	no change	no
Q8C6E0	1.239	0.3092	0.1137	up	no
N0E4C0	0.8202	-0.286	0.3514	down	no
Q06185	1.078	0.1084	0.7579	no change	no
Q9QYF1	1.217	0.2833	0.2678	up	no
P97401	0.9073	-0.1403	0.5049	no change	no
Q8K2B3	0.9507	-0.07294	0.6055	no change	no
Q8BKC5	0.9548	-0.06673	0.5927	no change	no
A0A1B0GR11	1.029	0.04124	0.9096	no change	no
Q9D023	1.262	0.3357	0.3803	up	no
A0A087WR97	1.126	0.1712	0.2101	no change	no
Q9CR57	0.8852	-0.1759	0.2232	no change	no
O08795	0.9852	-0.02151	0.7416	no change	no
Q3UAG2	1.226	0.294	0.2745	up	no
Q99KJ8	1.104	0.1427	0.6546	no change	no
F6YRW4	1.119	0.1622	0.4295	no change	no
B7ZWF1	1.041	0.05797	0.4783	no change	no
P45952	1.073	0.1017	0.2023	no change	no
P09103	1.006	0.00863	0.8891	no change	no
Q5M9L1	1.166	0.2216	0.07925	no change	no
E9PYH2	1.12	0.1635	0.1176	no change	no
B1ASE2	0.9632	-0.05409	0.8451	no change	no
Q3TAH3	1.07	0.09761	0.1307	no change	no
A0A0A0MQD7	0.5125	-0.9644	0.3201	down	no
H3BKR2	1.069	0.09626	0.3193	no change	no
O35226	1.157	0.2104	0.5486	no change	no
A0A2I3BRL8	1.002	0.002883	0.9883	no change	no
F8WGT1	1.31	0.3896	0.1747	up	no
Q3T9B4	0.849	-0.2362	0.602	no change	no
Q569Z6	1.748	0.8057	0.4862	up	no
Q6PE15	1.093	0.1283	0.9045	no change	no
Q8CIJ3	0.9517	-0.07142	0.4663	no change	no
E9PZ97	1.603	0.6808	0.5344	up	no
A0A0R4J0Z1	1.038	0.05381	0.6986	no change	no
Q4FJY5	1.465	0.5509	0.2569	up	no
Q61205	0.9588	-0.0607	0.6238	no change	no
A0A498WFS2	0.9727	-0.03993	0.7495	no change	no
Q3UXP2	1.095	0.1309	0.4277	no change	no
P27601	0.9896	-0.01508	0.994	no change	no
P05202	1.048	0.06764	0.4233	no change	no
P53808	1.003	0.004322	0.9763	no change	no
D3Z0F5	1.172	0.229	0.1208	no change	no

A0A0J9YU07	1.179	0.2376	0.1399	no change	no
F7BQE4	2.862	1.517	0.2967	up	no
Q3TJD4	1.19	0.251	0.1256	no change	no
A0A0R4J1E2	0.8951	-0.1599	0.2093	no change	no
P57759	0.8383	-0.2545	0.3267	no change	no
Q9EQ00	1.393	0.4782	0.4135	up	no
A0A1W2P6F6	0.8286	-0.2713	0.5063	down	no
Q9ESP1	1.029	0.04124	0.8395	no change	no
P53994	0.952	-0.07097	0.6331	no change	no
Q78XF5	1.06	0.08406	0.5747	no change	no
P19157	0.7735	-0.3705	0.4989	down	no
Q64442	0.9727	-0.03993	0.8935	no change	no
Q9JJZ2	0.5806	-0.7844	0.3036	down	no
P62892	1.123	0.1674	0.1812	no change	no
Q922Q1	1.015	0.02148	0.6733	no change	no
Q3TMX5	0.9247	-0.1129	0.7751	no change	no
P09671	1.184	0.2437	0.602	no change	no
Q3U1J4	1.111	0.1519	0.1409	no change	no
A0A087WPL5	0.9622	-0.05559	0.334	no change	no
Q9DB20	1.007	0.01006	0.9162	no change	no
Q99KV1	0.9179	-0.1236	0.4765	no change	no
Q60598	1.113	0.1545	0.132	no change	no
E9PWE8	1.047	0.06626	0.3582	no change	no
Q3TIP8	0.8791	-0.1859	0.1115	no change	no
D3Z111	0.8832	-0.1792	0.05866	no change	no
O55033	0.9286	-0.1069	0.8173	no change	no
A0A494B9T3	0.8377	-0.2555	0.7398	no change	no
Q3TFP0	1.132	0.1789	0.2209	no change	no
F6QKK2	1.031	0.04404	0.6377	no change	no
D3Z3Q3	0.8011	-0.3199	0.2617	down	no
Q9CXS4	1.036	0.05102	0.5744	no change	no
O54734	0.8973	-0.1563	0.3869	no change	no
I7HLV2	0.8532	-0.229	0.3325	no change	no
P17426	1.114	0.1557	0.2554	no change	no
Q9CQ91	1.019	0.02715	0.7929	no change	no
P62242	1.017	0.02432	0.6069	no change	no
O35539	1.142	0.1916	0.1734	no change	no
P51660	0.8154	-0.2944	0.08419	down	no
A0A3B2WBM3	0.8422	-0.2478	0.6182	no change	no
Q8CII2	0.9199	-0.1205	0.6936	no change	no
D3YWY5	1.077	0.107	0.6377	no change	no
P63005	1.004	0.005759	0.9359	no change	no
Q9D3B1	1.153	0.2054	0.1708	no change	no

Q921M3	1.118	0.1609	0.1139	no change	no
Q9DBH5	0.8753	-0.1922	0.05204	no change	no
D3YU56	1.396	0.4813	0.7147	up	no
D3YZP9	0.9151	-0.128	0.1443	no change	no
E9Q591	1.655	0.7268	0.5457	up	no
Q9CYG7	0.8853	-0.1758	0.482	no change	no
A0A1B0GRT5	1.176	0.2339	0.6476	no change	no
B7ZNI0	0.9637	-0.05334	0.2083	no change	no
Q8K0L1	0.8211	-0.2844	0.5138	down	no
O55013	0.3147	-1.668	0.3833	down	no
Q3UXI9	1.631	0.7058	0.2416	up	no
D3YXK2	0.9607	-0.05784	0.1348	no change	no
A0A1W2P7G2	1.035	0.04963	0.1851	no change	no
Q9D0I9	0.9131	-0.1312	0.2991	no change	no
A0A510C1L5	0.6322	-0.6615	0.2122	down	no
A0A1D5RLW5	1.027	0.03844	0.6739	no change	no
Q9CR68	1.327	0.4082	0.7092	up	no
A0A1L1SUU4	0.952	-0.07097	0.6768	no change	no
Q3TXJ4	0.9635	-0.05364	0.4786	no change	no
P61971	1.121	0.1648	0.405	no change	no
P26516	1.011	0.01578	0.8559	no change	no
P17563	1.011	0.01578	0.8445	no change	no
P59999	0.9619	-0.05604	0.533	no change	no
P09470	0.9625	-0.05514	0.7325	no change	no
P62082	0.9977	-0.003322	0.9814	no change	no
Q3TUI9	1.031	0.04404	0.6992	no change	no
Q9CQU0	0.954	-0.06794	0.5847	no change	no
Q9DCJ9	0.8503	-0.234	0.238	no change	no
Q3T9X3	0.9427	-0.08513	0.08913	no change	no
Q3TG12	0.9397	-0.08973	0.2859	no change	no
Q3TTX0	1.118	0.1609	0.1934	no change	no
Q8K2D8	0.8701	-0.2007	0.4133	no change	no
Q9ERD7	0.8827	-0.18	0.628	no change	no
A0A0R4J0V5	1.192	0.2534	0.7753	no change	no
Q91Z31	0.9773	-0.03313	0.3112	no change	no
Q9CQM5	0.5493	-0.8643	0.08279	down	no
O55234	1.199	0.2618	0.1119	no change	no
A0A1S6GWH2	0.131	-2.932	0.3432	down	no
Q9R1P1	1.537	0.6201	0.3176	up	no
E9Q0C6	0.9517	-0.07142	0.2706	no change	no
Q3TIV2	0.06767	-3.885	0.3784	down	no
Q8BMK4	1.129	0.175	0.387	no change	no
Q9D0L7	0.3711	-1.43	0.1973	down	no

P62962	0.8813	-0.1823	0.1981	no change	no
Q3UJ70	1.102	0.1401	0.1366	no change	no
A0A0G2JGT5	1.134	0.1814	0.1599	no change	no
Q3U589	0.9674	-0.04782	0.8375	no change	no
Q3UDN8	1.056	0.07861	0.6136	no change	no
Q8BTU1	1.595	0.6736	0.3157	up	no
Q9D1H7	0.7773	-0.3635	0.528	down	no
Q9DB90	0.8859	-0.1748	0.9269	no change	no
Q7TMQ7	10.72	3.422	0.4051	up	no
Q91V76	0.8283	-0.2718	0.3605	down	no
E0CXN5	0.9568	-0.06371	0.7057	no change	no
A0A3Q4EGN8	0.8939	-0.1618	0.08459	no change	no
F8WIV2	1.339	0.4212	0.1585	up	no
Q80ZN9	0.9293	-0.1058	0.3487	no change	no
Q8QZT1	0.9224	-0.1165	0.549	no change	no
Q9Z1F9	0.9147	-0.1286	0.431	no change	no
B2RRI1	0.5316	-0.9116	0.1527	down	no
Q3U125	1.16	0.2141	0.1609	no change	no
E9PVP0	2.125	1.087	0.4396	up	no
O89112	0.9926	-0.01072	0.8993	no change	no
Q3SXD3	1.015	0.02148	0.8209	no change	no
Q5SWR1	0.9769	-0.03372	0.6662	no change	no
D3Z125	1.358	0.4415	0.3952	up	no
E9Q0W8	1.245	0.3161	0.08577	up	no
E9Q4V9	0.00884	-6.822	0.1141	down	no
Q3TCN2	0.8612	-0.2156	0.5509	no change	no
P55264	1.063	0.08814	0.2631	no change	no
F8WIR1	1.083	0.115	0.07255	no change	no
D1FNM8	0.8	-0.3219	0.2245	down	no
P13020	0.9652	-0.0511	0.8198	no change	no
O54984	0.9362	-0.09511	0.5923	no change	no
Q61166	1.033	0.04684	0.1587	no change	no
Q9JHI5	1.205	0.269	0.1321	up	no
Q9D0T1	1.084	0.1164	0.2382	no change	no
A0A494BAJ5	0.9367	-0.09434	0.4853	no change	no
Q91ZA3	1.063	0.08814	0.09339	no change	no
K9J7B2	0.672	-0.5735	0.2464	down	no
A0A0J9YVG0	1.342	0.4244	0.06278	up	no
Q9D6J6	0.8498	-0.2348	0.09052	no change	no
Q3TUU5	1.114	0.1557	0.2744	no change	no
O88543	1.107	0.1467	0.7348	no change	no
A0A3B2WCD8	1.13	0.1763	0.2372	no change	no
Q9CQ62	0.9918	-0.01188	0.9668	no change	no

D3Z0U4	1.289	0.3663	0.1024	up	no
A0A1W2P7K2	1.033	0.04684	0.7765	no change	no
P97807	2.397	1.261	0.09032	up	no
Q3V4B3	0.8794	-0.1854	0.5575	no change	no
P51150	1.221	0.2881	0.06698	up	no
A0A494B9Y4	1.018	0.02574	0.6336	no change	no
Q8C633	0.9194	-0.1212	0.4171	no change	no
E0CXB5	0.9827	-0.02518	0.7697	no change	no
E9PYR1	0.7371	-0.4401	0.5303	down	no
Q8R326	1.038	0.05381	0.6799	no change	no
P41105	1.015	0.02148	0.9472	no change	no
Q0GGX2	1.153	0.2054	0.7329	no change	no
Q9D997	1.076	0.1057	0.8261	no change	no
Q8VI75	0.9125	-0.1321	0.05341	no change	no
A0A286YEB7	0.9635	-0.05364	0.8939	no change	no
P62274	1.081	0.1124	0.1571	no change	no
Q9Z188	0.8038	-0.3151	0.6945	down	no
A0A494B955	0.9949	-0.007377	0.9274	no change	no
Q01320	1.04	0.05658	0.4986	no change	no
Q9DAN1	0.8563	-0.2238	0.08472	no change	no
Q9QX52	1.135	0.1827	0.6754	no change	no
P12970	0.8932	-0.1629	0.2147	no change	no
D3Z124	1.052	0.07313	0.336	no change	no
P52825	1.127	0.1725	0.1032	no change	no
B1AQY9	0.6039	-0.7276	0.08716	down	no
P10518	1.246	0.3173	0.1921	up	no
Q9D8B7	0.9931	-0.009989	0.9788	no change	no
F6SMY7	1.097	0.1336	0.9371	no change	no
Q3UH59	1.016	0.0229	0.921	no change	no
A0A3Q4EI12	0.9135	-0.1305	0.5737	no change	no
D3YW97	1.058	0.08134	0.64	no change	no
Q6A068	1.127	0.1725	0.113	no change	no
E9QJW0	0.934	-0.09851	0.8239	no change	no
P32067	1.023	0.03281	0.6604	no change	no
P53996	1.154	0.2066	0.2131	no change	no
P49722	1.103	0.1414	0.2429	no change	no
E0CYY1	0.8529	-0.2296	0.4184	no change	no
D3Z158	1.034	0.04824	0.09126	no change	no
P49891	1.205	0.269	0.5442	up	no
P70696	1.011	0.01578	0.9763	no change	no
E9QL13	1.016	0.0229	0.685	no change	no
Q9EPU0	0.9345	-0.09773	0.2047	no change	no
B0V2N5	1.382	0.4668	0.4089	up	no

E9PY46	1.189	0.2497	0.1694	no change	no
Q3TXT9	1.054	0.07587	0.4418	no change	no
Q64514	0.9137	-0.1302	0.08853	no change	no
P21278	1.143	0.1928	0.2422	no change	no
A0A0R4J1N9	0.2671	-1.905	0.4103	down	no
Q9D2S9	0.9811	-0.02753	0.789	no change	no
A0A1L1SS27	1.067	0.09356	0.4914	no change	no
P70122	1.108	0.148	0.102	no change	no
A0A0N4SVE1	0.949	-0.07552	0.5983	no change	no
A0A1B0GX81	1.154	0.2066	0.1508	no change	no
A0A2I3BQS7	1.047	0.06626	0.6414	no change	no
A0A0N4SVE0	1.162	0.2166	0.2551	no change	no
Q3TXF9	1.138	0.1865	0.1634	no change	no
P17918	1.129	0.175	0.654	no change	no
A0A0R4J083	1.151	0.2029	0.1262	no change	no
Q99KP6	1.277	0.3528	0.4593	up	no
P37040	1.233	0.3022	0.1194	up	no
Q3TFF0	0.9891	-0.01581	0.9566	no change	no
Q3TSX8	0.9192	-0.1215	0.2068	no change	no
A0A0R4J1Z3	0.8448	-0.2433	0.8112	no change	no
A0A171KXD3	0.8556	-0.225	0.2173	no change	no
I3PQX0	0.8153	-0.2946	0.1315	down	no
Q3THK7	1.029	0.04124	0.704	no change	no
Q8CDG1	0.9705	-0.0432	0.7075	no change	no
Q60749	1.001	0.001442	0.9792	no change	no
Q9CPN9	0.9639	-0.05304	0.8043	no change	no
Q91WM1	0.2888	-1.792	0.2136	down	no
A0A140LIZ5	1.018	0.02574	0.62	no change	no
A0A1L1SR11	3.934	1.976	0.2391	up	no
A0A1W2P7A1	0.9371	-0.09373	0.08614	no change	no
A0A1B0GRV7	0.9075	-0.14	0.2482	no change	no
I1E4X7	0.9612	-0.05709	0.598	no change	no
P11031	0.9142	-0.1294	0.533	no change	no
P08752	0.885	-0.1763	0.3722	no change	no
Q9D1E6	1.703	0.7681	0.2033	up	no
E9PYI8	1.083	0.115	0.8167	no change	no
Q8VBV7	0.999	-0.001443	0.9882	no change	no
A0A338P6F6	0.8421	-0.2479	0.3446	no change	no
Q9CRY7	1.14	0.189	0.3475	no change	no
Q80UL3	0.9351	-0.09681	0.3014	no change	no
Q9CQ75	1.091	0.1257	0.4968	no change	no
P28271	0.9886	-0.01654	0.7434	no change	no

Q0VEE6	0.02015	-5.633	0.3657	down	no
P63001	1.01	0.01436	0.8271	no change	no
P11087	1.306	0.3852	0.3065	up	no
A0A140LHG8	0.759	-0.3978	0.4172	down	no
Q3TKM9	0.7695	-0.378	0.3915	down	no
P46656	0.9856	-0.02093	0.8462	no change	no
P60670	1.103	0.1414	0.3045	no change	no
D3Z3J6	0.415	-1.269	0.3168	down	no
G3X928	1.002	0.002883	0.9789	no change	no
E9Q9J4	0.03945	-4.664	0.1208	down	no
Q9WV55	0.6615	-0.5962	0.207	down	no
E9PWB2	0.9474	-0.07795	0.6181	no change	no
G3X9Z7	1.099	0.1362	0.6818	no change	no
Q3TED3	0.8654	-0.2086	0.1264	no change	no
Q3UGK7	1.01	0.01436	0.9771	no change	no
Q78T54	0.9891	-0.01581	0.9405	no change	no
Q9CPP6	1.094	0.1296	0.2962	no change	no
Q80X68	1.008	0.0115	0.9841	no change	no
A0A1S6GWI1	0.8786	-0.1867	0.06115	no change	no
Q3TTF2	0.8829	-0.1797	0.4185	no change	no
Q60972	1.418	0.5039	0.09715	up	no
Q9CXW3	1.012	0.01721	0.787	no change	no
P62334	0.8736	-0.195	0.3115	no change	no
Q4FK66	1.219	0.2857	0.08832	up	no
Q3TJB4	0.6367	-0.6513	0.08364	down	no
Q8JZU2	0.9775	-0.03283	0.8061	no change	no
P60122	1.168	0.224	0.2865	no change	no
Q8BKZ9	0.8763	-0.1905	0.7048	no change	no
Q8BJ71	0.8837	-0.1784	0.2049	no change	no
A0A0N4SW07	1.082	0.1137	0.1569	no change	no
P54923	0.666	-0.5864	0.2121	down	no
Q3UM45	0.8899	-0.1683	0.3985	no change	no
P47856	1.072	0.1003	0.1016	no change	no
Q62351	1.232	0.301	0.09186	up	no
Q3U6D2	1.254	0.3265	0.2277	up	no
P62774	1.839	0.8789	0.05992	up	no
B2RY90	1.01	0.01436	0.486	no change	no
Q8C845	1.069	0.09626	0.4358	no change	no
P04104	0.4601	-1.12	0.4266	down	no
Q6P4T2	1.1	0.1375	0.2014	no change	no
A0A1L1STE4	0.9828	-0.02503	0.8272	no change	no
A0A0G2JE25	1.012	0.01721	0.8149	no change	no
D6RI20	1.066	0.09221	0.6864	no change	no

M0QWS4	1.785	0.8359	0.1402	up	no
A2AJ88	0.2474	-2.015	0.3289	down	no
D3YYD5	1.582	0.6617	0.4284	up	no
Q6S385	1.034	0.04824	0.5286	no change	no
Q61425	1.53	0.6135	0.1576	up	no
Q99PV0	0.9766	-0.03416	0.8449	no change	no
O35129	0.88	-0.1844	0.4593	no change	no
Q9CQ06	1.032	0.04544	0.9128	no change	no
Q9CWJ9	0.9012	-0.1501	0.1289	no change	no
P56391	0.8039	-0.3149	0.4677	down	no
A2A513	0.3073	-1.702	0.226	down	no
Q3TLX1	1.943	0.9583	0.1844	up	no
Q9QZQ8	1.013	0.01863	0.9125	no change	no
G3X956	2.36	1.239	0.3284	up	no
A0A1W2P712	2.431	1.282	0.2039	up	no
A0A0R4J1Y7	1.054	0.07587	0.3568	no change	no
P28656	0.7896	-0.3408	0.1997	down	no
A0A140LJB5	0.943	-0.08467	0.9262	no change	no
P50516	1.322	0.4027	0.242	up	no
Q5SVW9	1.029	0.04124	0.7048	no change	no
Q60597	0.9526	-0.07006	0.2941	no change	no
Q3UGR5	0.881	-0.1828	0.586	no change	no
O08716	1.023	0.03281	0.9631	no change	no
P57784	1.008	0.0115	0.982	no change	no
P61922	1.1	0.1375	0.6795	no change	no
B9EIU1	0.92	-0.1203	0.2348	no change	no
D3YXG1	1.124	0.1686	0.1606	no change	no
A0A0R4J156	0.9031	-0.147	0.7681	no change	no
F6RK81	0.8628	-0.2129	0.2426	no change	no
Q60737	1.173	0.2302	0.1894	no change	no
Q9D4R2	1.138	0.1865	0.2212	no change	no
Q3V0X4	0.836	-0.2584	0.4841	no change	no
Q91V01	1.147	0.1979	0.5722	no change	no
Q3UWW9	0.931	-0.1031	0.436	no change	no
Q3UC72	1.019	0.02715	0.8936	no change	no
Q9CPU0	1.26	0.3334	0.1462	up	no
Q99N93	2.546	1.348	0.4302	up	no
Q9Z1Z2	1.281	0.3573	0.1107	up	no
Q9CQW2	0.7278	-0.4584	0.4748	down	no
Q3TYL7	1.176	0.2339	0.3599	no change	no
Q0VDQ2	1.083	0.115	0.4031	no change	no
E9Q5B5	1.094	0.1296	0.4315	no change	no
P35486	0.9019	-0.149	0.4775	no change	no

P06728	0.9926	-0.01072	0.9782	no change	no
P97370	0.9566	-0.06401	0.373	no change	no
O89086	1.184	0.2437	0.3733	no change	no
Q00PI9	1.057	0.07998	0.4152	no change	no
Q8R1B4	0.9301	-0.1045	0.6745	no change	no
B1AZP2	0.5028	-0.9919	0.2972	down	no
A0A494BBF6	1.784	0.8351	0.5003	up	no
Q9DAD6	0.8125	-0.2996	0.1585	down	no
A0A1B0GS58	1.219	0.2857	0.5818	up	no
P63321	1.05	0.07039	0.7458	no change	no
P48758	1.096	0.1322	0.4306	no change	no
Q9DC70	0.9573	-0.06296	0.6278	no change	no
Q8BLH5	1.276	0.3516	0.4528	up	no
Q1A3B0	1.272	0.3471	0.2325	up	no
Q3TJA9	1.186	0.2461	0.08258	no change	no
P62911	1.024	0.03422	0.9337	no change	no
Q9D4E6	0.8586	-0.2199	0.4012	no change	no
Q9D9V4	0.7584	-0.399	0.3601	down	no
Q3UFY7	1.266	0.3403	0.05289	up	no
Q8VHN8	1.006	0.00863	0.9483	no change	no
Q9DCT2	0.9763	-0.0346	0.483	no change	no
D3YZC9	0.746	-0.4228	0.2179	down	no
E0CZ72	0.9651	-0.05125	0.5572	no change	no
P14094	1.077	0.107	0.4082	no change	no
Q9D2G2	1.062	0.08678	0.4568	no change	no
A0A1S6GWK0	0.6307	-0.665	0.2139	down	no
P54822	0.9066	-0.1415	0.193	no change	no
Q6TNG5	0.873	-0.1959	0.51	no change	no
Q6ZPS9	1.071	0.09896	0.6366	no change	no
P61620	1.067	0.09356	0.2979	no change	no
D3YYN7	0.9535	-0.0687	0.2064	no change	no
A0A338P731	0.866	-0.2076	0.6265	no change	no
A0A2I3BPC5	0.6757	-0.5655	0.08569	down	no
A2A9I7	1.419	0.5049	0.5414	up	no
P26443	0.9011	-0.1502	0.4674	no change	no
A0A023J5X5	0.954	-0.06794	0.3591	no change	no
P17225	0.9807	-0.02812	0.892	no change	no
A0A0N4SWD7	1.243	0.3138	0.1012	up	no
Q3TXM9	1.201	0.2642	0.5084	up	no
G3X8R5	1.124	0.1686	0.3946	no change	no
Q3TIT6	1.03	0.04264	0.8777	no change	no
A0A0G2JF44	0.9827	-0.02518	0.8375	no change	no
P58021	0.7122	-0.4896	0.2209	down	no

O35385	0.9232	-0.1153	0.6982	no change	no
Q9Z1Z0	0.9034	-0.1466	0.2497	no change	no
Q9D5A0	1.099	0.1362	0.207	no change	no
Q99LF4	1.366	0.45	0.3359	up	no
Q9JJ78	0.6948	-0.5253	0.3169	down	no
B2RQC6	1.089	0.123	0.08863	no change	no
P70458	0.8257	-0.2763	0.06031	down	no
G3UXY0	0.8702	-0.2006	0.4806	no change	no
Q3U548	0.856	-0.2243	0.1908	no change	no
Q3U4A3	1.105	0.144	0.7397	no change	no
Q61390	0.9826	-0.02532	0.9045	no change	no
D3YXT0	0.9911	-0.0129	0.9717	no change	no
B0QZP8	1.221	0.2881	0.4344	up	no
Q921V3	0.8796	-0.1851	0.08347	no change	no
A2AGN7	0.7895	-0.341	0.6802	down	no
Q99MV1	1.058	0.08134	0.3356	no change	no
A0A1D5RL86	1.202	0.2654	0.3871	up	no
Q8BPG0	1.069	0.09626	0.797	no change	no
E9PZS8	0.8246	-0.2782	0.7167	down	no
P28658	1.277	0.3528	0.4952	up	no
Q9WVJ2	1.157	0.2104	0.4189	no change	no
E9QK89	0.9861	-0.02019	0.9394	no change	no
Q8CG76	1.086	0.119	0.2586	no change	no
Q6NSR5	0.7264	-0.4612	0.08627	down	no
Q921F4	1.145	0.1953	0.5032	no change	no
A1BN54	1.052	0.07313	0.6822	no change	no
Q8K4Z3	1.468	0.5539	0.2475	up	no
P00329	0.9873	-0.01844	0.9691	no change	no
Q8BGH2	1.158	0.2116	0.1069	no change	no
Q3TIA9	0.8982	-0.1549	0.5891	no change	no
Q3T9Y8	0.8916	-0.1655	0.3592	no change	no
P26039	1.11	0.1506	0.2806	no change	no
Q3UTB8	1.546	0.6285	0.3383	up	no
H3BJL6	0.5402	-0.8884	0.3535	down	no
P23116	0.9901	-0.01435	0.8612	no change	no
D3YY50	1.107	0.1467	0.4223	no change	no
A0A0G2JF08	1.17	0.2265	0.5573	no change	no
Q3U9A8	0.573	-0.8034	0.1009	down	no
Q3U313	0.6382	-0.6479	0.141	down	no
I6L9H1	1.473	0.5588	0.3624	up	no
A0A0R4J024	1.019	0.02715	0.8343	no change	no
Q99L45	1.087	0.1204	0.23	no change	no
A2AFQ2	0.8176	-0.2905	0.05261	down	no

D3Z067	0.9498	-0.0743	0.2186	no change	no
D6RH99	0.983	-0.02474	0.576	no change	no
Q61241	1.852	0.8891	0.06614	up	no
D3YUK4	1.278	0.3539	0.1191	up	no
A0A0U1RNJ1	0.9231	-0.1154	0.1572	no change	no
O70493	1.18	0.2388	0.0652	no change	no
P29533	1.116	0.1583	0.4588	no change	no
Q8BFR5	0.7159	-0.4822	0.5863	down	no
B2RUD9	0.5916	-0.7573	0.164	down	no
F7AT44	1.075	0.1043	0.5983	no change	no
Q80YV4	0.02653	-5.236	0.3756	down	no
D3Z0G0	1.287	0.364	0.3228	up	no
Q6P5F9	1.048	0.06764	0.6362	no change	no
A0A0R4J094	0.9157	-0.1271	0.05387	no change	no
O88958	0.7967	-0.3279	0.5276	down	no
Q8BJ64	1.641	0.7146	0.06196	up	no
Q61033	1.505	0.5898	0.2117	up	no
Q9JJI8	0.8989	-0.1538	0.5719	no change	no
F6V8R7	1.633	0.7075	0.0656	up	no
A0JP49	1.419	0.5049	0.06619	up	no
A2A547	0.857	-0.2226	0.6575	no change	no
Q8BVQ5	0.9914	-0.01246	0.8475	no change	no
Q9DAP0	0.8337	-0.2624	0.1042	no change	no
Q8VE88	1.197	0.2594	0.5137	no change	no
O55029	1.062	0.08678	0.4192	no change	no
A0A494B9L7	0.9689	-0.04558	0.6527	no change	no
Q04997	0.7563	-0.403	0.4988	down	no
P22892	1.076	0.1057	0.5059	no change	no
Q8K410	1.136	0.184	0.1404	no change	no
Q3URN2	1.079	0.1097	0.4522	no change	no
P47857	0.9319	-0.1018	0.3879	no change	no
Q3TT91	1.373	0.4573	0.2895	up	no
Q78Y63	0.9226	-0.1162	0.7688	no change	no
E9Q1S3	1.022	0.0314	0.8532	no change	no
A0A1B0GT70	0.6631	-0.5927	0.2133	down	no
A0A3Q4EGK1	0.9126	-0.1319	0.7759	no change	no
Q3U2G2	0.9433	-0.08421	0.8618	no change	no
Q3U7E6	1.151	0.2029	0.2211	no change	no
Q3TXN1	1.522	0.606	0.288	up	no
O09172	1.126	0.1712	0.3779	no change	no
Q3TA54	1.403	0.4885	0.1625	up	no
A0A498WGK6	1.114	0.1557	0.1759	no change	no
D3Z061	1.03	0.04264	0.4773	no change	no

P26041	1.005	0.007196	0.9605	no change	no
P50580	0.9973	-0.003901	0.993	no change	no
A0A5F8MPR5	1.725	0.7866	0.07073	up	no
Q05816	1.156	0.2091	0.3398	no change	no
Q3TWE8	0.7766	-0.3648	0.5236	down	no
Q3V2K7	1.124	0.1686	0.1431	no change	no
P51885	1.326	0.4071	0.37	up	no
Q8C9V6	0.944	-0.08314	0.8472	no change	no
P62965	1.085	0.1177	0.2477	no change	no
Q3TDN2	0.971	-0.04246	0.9298	no change	no
P97765	1.163	0.2179	0.1656	no change	no
Q9CQU3	1.079	0.1097	0.557	no change	no
O35459	4.241	2.084	0.1036	up	no
P17182	0.8881	-0.1712	0.8807	no change	no
G3UYE8	0.9626	-0.05499	0.5977	no change	no
Q3TJX6	1.439	0.5251	0.05015	up	no
P70404	1.208	0.2726	0.6745	up	no
Q3USI2	2.373	1.247	0.06827	up	no
Q9CQU5	0.577	-0.7934	0.2298	down	no
Q78PG9	1.294	0.3718	0.1363	up	no
Q9CQ14	1.18	0.2388	0.08905	no change	no
A0A3B2WBL1	0.4724	-1.082	0.1712	down	no
O35386	2.548	1.349	0.08273	up	no
D5MCW4	0.8444	-0.244	0.5902	no change	no
D3Z0M9	1.325	0.406	0.1615	up	no
Q3TXD3	1.151	0.2029	0.4903	no change	no
B0R081	0.7109	-0.4923	0.2778	down	no
Q9CY64	1.004	0.005759	0.96	no change	no
P60766	0.9159	-0.1267	0.6138	no change	no
P35282	1.255	0.3277	0.5468	up	no
O70252	0.7927	-0.3352	0.1054	down	no
E9PYT3	1.152	0.2041	0.1113	no change	no
D3YWN6	0.4939	-1.018	0.08552	down	no
Q9EPL9	1.317	0.3973	0.1651	up	no
G3X977	0.8301	-0.2686	0.695	no change	no
Q8BU30	0.9801	-0.029	0.7457	no change	no
Q8BJY1	0.9963	-0.005348	0.9409	no change	no
A1L0X5	0.2673	-1.903	0.2493	down	no
Q9D554	0.6428	-0.6376	0.09143	down	no
Q9CQZ5	0.7699	-0.3773	0.1312	down	no
P35762	0.7739	-0.3698	0.5783	down	no
B1ARW4	0.7953	-0.3304	0.4882	down	no
Q3TWN8	0.8614	-0.2152	0.8346	no change	no

Q9D051	0.8924	-0.1642	0.3415	no change	no
B8JJ91	0.8736	-0.195	0.2096	no change	no
A0A0A6YWC2	0.7641	-0.3882	0.1508	down	no
Q9D9G7	0.9482	-0.07674	0.5288	no change	no
Q8CH18	1.34	0.4222	0.1274	up	no
A0A0N4SVP8	0.9562	-0.06462	0.6764	no change	no
Q9D7M8	1.069	0.09626	0.3639	no change	no
Q32MW4	0.6835	-0.549	0.183	down	no
O35969	1.629	0.704	0.2259	up	no
Q8BGU5	0.6864	-0.5429	0.1616	down	no
E9PVA8	1.05	0.07039	0.4697	no change	no
A0A140LJB7	0.9821	-0.02606	0.9135	no change	no
E9PXE0	0.9388	-0.09111	0.3652	no change	no
G3XA25	0.7601	-0.3957	0.1603	down	no
J9JDU9	0.9267	-0.1098	0.3787	no change	no
A0A1B0GRH3	0.8941	-0.1615	0.07716	no change	no
Q9JJV2	1.301	0.3796	0.2636	up	no
O88531	0.8507	-0.2333	0.3216	no change	no
Q9Z2X2	0.915	-0.1282	0.2611	no change	no
Q9DCT1	0.4997	-1.001	0.1974	down	no
A0A3Q4EC00	1.482	0.5675	0.06812	up	no
Q9QY15	0.941	-0.08773	0.7081	no change	no
A0A494B9K4	1.058	0.08134	0.4376	no change	no
A0A0A6YXF6	0.9703	-0.0435	0.7773	no change	no
Q8CHP5	0.939	-0.0908	0.6896	no change	no
O88987	0.6502	-0.621	0.05731	down	no
Q921Q3	1.366	0.45	0.5144	up	no
A0A0R4J0K2	0.95	-0.074	0.5333	no change	no
P60229	1.428	0.514	0.1382	up	no
Q8CI08	1.007	0.01006	0.9728	no change	no
P61202	0.9936	-0.009263	0.8903	no change	no
A0A0N4SW73	1.181	0.24	0.8828	no change	no
Q921Z9	0.7538	-0.4077	0.1091	down	no
Q9JLI8	1.117	0.1596	0.5047	no change	no
O88342	0.7824	-0.354	0.2163	down	no
Q3TZ32	0.8769	-0.1895	0.2952	no change	no
Q9CPT4	0.8401	-0.2514	0.3829	no change	no
Q3TCM6	0.5559	-0.8471	0.6509	down	no
Q3UI30	0.6272	-0.673	0.354	down	no
Q99P72	0.9846	-0.02239	0.6373	no change	no
Q3TF84	0.7471	-0.4206	0.2754	down	no
Q505N9	0.8942	-0.1613	0.8935	no change	no
P62830	0.9143	-0.1293	0.6485	no change	no

Q62148	0.9156	-0.1272	0.2271	no change	no
A0A068BIS1	1.058	0.08134	0.9427	no change	no
P35505	0.8837	-0.1784	0.616	no change	no
Q3TVT6	1.091	0.1257	0.9069	no change	no
G3UZG6	1.297	0.3752	0.4496	up	no
A0A0B4J1E2	0.9636	-0.05349	0.7706	no change	no
A0A3B2WB12	1.43	0.516	0.4541	up	no
Q3V0U9	1.512	0.5965	0.1203	up	no
E9QB02	1.119	0.1622	0.06253	no change	no
Q8K4X7	0.7171	-0.4798	0.2689	down	no
Q91WS0	1.43	0.516	0.08109	up	no
Q8CEC6	0.7094	-0.4953	0.6171	down	no
Q3U4S9	0.9928	-0.01042	0.9484	no change	no
A0A1S6GWI0	0.8945	-0.1608	0.2332	no change	no
D3YTR3	1.157	0.2104	0.7794	no change	no
D3Z7V3	0.9851	-0.02166	0.6039	no change	no
Q8BU31	1.086	0.119	0.3246	no change	no
D3YXH9	0.452	-1.146	0.06652	down	no
Q9D172	0.8987	-0.1541	0.08284	no change	no
A0A0A6YWG8	1.21	0.275	0.1124	up	no
E9Q355	0.8557	-0.2248	0.5612	no change	no
Q149F3	0.4396	-1.186	0.1773	down	no
P35585	0.7406	-0.4332	0.1228	down	no
D3Z2J5	0.4537	-1.14	0.06912	down	no
Q3ULZ3	1.029	0.04124	0.7495	no change	no
Q8BIJ6	0.9704	-0.04335	0.7419	no change	no
Q9EPL8	0.984	-0.02327	0.9471	no change	no
A2AJK8	0.9769	-0.03372	0.6944	no change	no
A0A0N4SV57	0.8287	-0.2711	0.6246	down	no
A2AH85	1.069	0.09626	0.6734	no change	no
A2BI37	1.052	0.07313	0.4317	no change	no
Q05CL8	1.093	0.1283	0.2215	no change	no
Q9CVF5	1.073	0.1017	0.8809	no change	no
Q3TK29	1.458	0.544	0.05026	up	no
E0CYV0	0.9706	-0.04305	0.9148	no change	no
P35550	0.7046	-0.5051	0.09731	down	no
Q3TXS7	0.9047	-0.1445	0.4444	no change	no
Q3TJ43	0.7226	-0.4687	0.292	down	no
A0A140T8T2	0.8673	-0.2054	0.4087	no change	no
P26638	0.8515	-0.2319	0.4566	no change	no
P36993	0.7159	-0.4822	0.3779	down	no
P26369	0.9592	-0.0601	0.891	no change	no
Q8BJW6	1.116	0.1583	0.2863	no change	no

A0A1B0GRV0	0.9905	-0.01377	0.7572	no change	no
Q3UX10	0.8785	-0.1869	0.2913	no change	no
A2AVJ7	0.6648	-0.589	0.3905	down	no
A0A455R725	1.623	0.6987	0.2565	up	no
Q8K3H0	0.8	-0.3219	0.7181	down	no
O35643	0.7785	-0.3612	0.1047	down	no
D3Z4U0	0.9887	-0.0164	0.9586	no change	no
A0A2I3BRL2	0.9244	-0.1134	0.8226	no change	no
P23591	0.8859	-0.1748	0.2467	no change	no
Q6ZQ73	2.799	1.485	0.348	up	no
Q3TXQ4	1.122	0.1661	0.6398	no change	no
P51863	0.8937	-0.1621	0.1356	no change	no
A0A068BEQ2	0.8639	-0.2111	0.2048	no change	no
Q9D411	0.6761	-0.5647	0.2581	down	no
A0A0R4J1Q0	0.7821	-0.3546	0.1954	down	no
E0CY49	1.097	0.1336	0.6352	no change	no
Q9D5P4	0.3384	-1.563	0.4267	down	no
Q8K3C3	1.087	0.1204	0.2555	no change	no
Q9QXD6	1.847	0.8852	0.4182	up	no
Q9WTQ5	0.4569	-1.13	0.0522	down	no
A0A0A0MQD1	0.9159	-0.1267	0.4183	no change	no
A0A0J9YUS5	0.9669	-0.04856	0.7257	no change	no
Q3U8X1	0.8521	-0.2309	0.1164	no change	no
O35841	1.017	0.02432	0.8595	no change	no
Q9D706	0.9169	-0.1252	0.5097	no change	no
A0A077S9M6	0.8554	-0.2253	0.3884	no change	no
A0A023J5Y5	1.343	0.4255	0.08359	up	no
E9Q6E5	1.199	0.2618	0.3003	no change	no
D3Z636	1.024	0.03422	0.9498	no change	no
Q9Z321	0.0896	-3.48	0.3329	down	no
Q8BG51	0.9856	-0.02093	0.8136	no change	no
Q6PIX9	1.167	0.2228	0.4535	no change	no
B7FAU9	1.22	0.2869	0.07844	up	no
Q9CZD3	0.972	-0.04097	0.6583	no change	no
Q0VAW6	1.758	0.8139	0.3736	up	no
P70385	1.17	0.2265	0.1795	no change	no
P97930	0.8425	-0.2473	0.1017	no change	no
Q6ZQI3	0.896	-0.1584	0.5809	no change	no
A0A0G2JDW7	1.005	0.007196	0.9885	no change	no
Q8BH95	2.123	1.086	0.2003	up	no
Q8CF20	1.124	0.1686	0.1336	no change	no
Q9CR61	1.041	0.05797	0.4401	no change	no
Q8CI75	2.28	1.189	0.2487	up	no

P21995	1.975	0.9819	0.06971	up	no
A0ZVB6	1.122	0.1661	0.1715	no change	no
A0A0R4J0K3	0.6794	-0.5577	0.07931	down	no
Q99LR1	0.8581	-0.2208	0.4574	no change	no
Q9DBL7	1.195	0.257	0.2812	no change	no
G3UXL2	1.204	0.2678	0.2161	up	no
E9QPX1	1.259	0.3323	0.1087	up	no
Q8BW75	1.308	0.3874	0.1668	up	no
Q8BKE9	0.9524	-0.07036	0.6712	no change	no
A0A0R4J038	1.17	0.2265	0.315	no change	no
Q99PA7	1.062	0.08678	0.4902	no change	no
Q99KC8	0.1111	-3.17	0.2104	down	no
Q5SYD0	0.1216	-3.04	0.405	down	no
A0A0R4J0D3	1.083	0.115	0.4599	no change	no
P56380	0.9085	-0.1384	0.3137	no change	no
Q3V016	1.753	0.8098	0.4753	up	no
Q8BHC4	0.9239	-0.1142	0.7526	no change	no
D3YZ62	0.1889	-2.404	0.228	down	no
O35639	1.212	0.2774	0.4233	up	no
A0A140LHL5	0.7852	-0.3489	0.2057	down	no
A0A0U1RPI8	0.9768	-0.03386	0.8358	no change	no
Q3TCR9	1.16	0.2141	0.185	no change	no
P27612	0.9147	-0.1286	0.4478	no change	no
Q99ML0	0.6673	-0.5836	0.06248	down	no
A0A087WP81	0.9428	-0.08498	0.2698	no change	no
A7UQY4	1.188	0.2485	0.0517	no change	no
Q3TLJ5	0.9691	-0.04528	0.801	no change	no
A0A0A0MQA2	10.87	3.442	0.1544	up	no
Q9DA04	0.7138	-0.4864	0.1935	down	no
Q6NWV3	0.7998	-0.3223	0.1064	down	no
P16381	1.154	0.2066	0.0799	no change	no
Q2YDW1	1.333	0.4147	0.3776	up	no
O09106	1.597	0.6754	0.2005	up	no
Q3UMA4	3.971	1.99	0.2585	up	no
Q9CQF3	1.437	0.5231	0.1367	up	no
A0A3B2WCL5	1.114	0.1557	0.699	no change	no
Q9D967	1.267	0.3414	0.09629	up	no
Q3UE37	0.5975	-0.743	0.4778	down	no
Q8BP97	0.4395	-1.186	0.423	down	no
F6TCF9	1.046	0.06488	0.8609	no change	no
P70349	1.042	0.05936	0.8951	no change	no
Q6ZWQ7	0.9232	-0.1153	0.2432	no change	no
Q8BP40	0.7491	-0.4168	0.2274	down	no

Q3U741	0.7948	-0.3313	0.4876	down	no
A0A0N4SVC2	1.027	0.03844	0.6858	no change	no
P97384	0.8066	-0.3101	0.5485	down	no
A0A0U1RNR5	1.218	0.2845	0.3946	up	no
P84084	1.217	0.2833	0.1574	up	no
P97364	1.493	0.5782	0.1281	up	no
Q9CZS1	1.148	0.1991	0.2464	no change	no
Q8JZS2	1.135	0.1827	0.3528	no change	no
Q91Z49	1.01	0.01436	0.9259	no change	no
O70152	0.9258	-0.1112	0.7722	no change	no
A0A0G2JEP0	0.4812	-1.055	0.3123	down	no
P70372	0.9154	-0.1275	0.6304	no change	no
C0J8I2	0.9626	-0.05499	0.9404	no change	no
Q64727	1.267	0.3414	0.1788	up	no
Q5H8C4	0.8718	-0.1979	0.2766	no change	no
E9Q3T8	1.882	0.9123	0.4795	up	no
O88441	0.8391	-0.2531	0.578	no change	no
F6XSQ3	1.099	0.1362	0.4211	no change	no
A0A1L1SUD9	0.4253	-1.233	0.4246	down	no
E9QK04	2.074	1.052	0.08565	up	no
Q61845	0.8642	-0.2106	0.09905	no change	no
Q3TGI0	1.333	0.4147	0.09398	up	no
A0A0R4J0R3	3.433	1.779	0.1524	up	no
Q3TY06	1.217	0.2833	0.2656	up	no
A0A0R3P9C8	0.9679	-0.04707	0.8436	no change	no
Q8BWQ9	0.525	-0.9296	0.2247	down	no
O89001	0.8086	-0.3065	0.3357	down	no
A2AG06	1.616	0.6924	0.338	up	no
Q6ZQ84	0.7803	-0.3579	0.06758	down	no
P32507	0.6756	-0.5658	0.2448	down	no
A0A0R4J2B2	1.179	0.2376	0.1454	no change	no
Q8K0T0	0.916	-0.1266	0.2778	no change	no
P12382	1.223	0.2904	0.3183	up	no
G5E881	0.8877	-0.1719	0.1867	no change	no
D3YWK1	0.6519	-0.6173	0.3596	down	no
D3Z3X4	1.031	0.04404	0.8256	no change	no
A0A0J9YV20	0.8988	-0.1539	0.8184	no change	no
A0A0G2JFY5	12.46	3.639	0.3549	up	no
Q925J9	0.02792	-5.163	0.3801	down	no
E9Q9H2	1.646	0.719	0.075	up	no
Q8CIV8	0.2149	-2.218	0.2525	down	no
Q9D2H9	1.014	0.02006	0.9444	no change	no
Q6DI95	1.082	0.1137	0.7591	no change	no

O08553	3.094	1.629	0.05821	up	no
Biognosys iRT-Kit_WR_fusion Biognosys iRT-Kit_WR_fusion Biognosys iRT-Kit_WR_fusion Biognosys iRT-Kit_WR_fusion Biognosys iRT-Kit_WR_fusion	0.8824	-0.1805	0.3833	no change	no
A0A0G2JFH2	1.066	0.09221	0.887	no change	no
Q05DI7	2.402	1.264	0.11	up	no
A0A023J653	1.171	0.2277	0.2079	no change	no
Q9D328	1.122	0.1661	0.621	no change	no
Q9QZ82	1.071	0.09896	0.7337	no change	no
O70591	1.135	0.1827	0.4082	no change	no
A0A0A6YVV2	0.8902	-0.1678	0.1879	no change	no
Q8VHX6	9.381	3.23	0.2339	up	no
Q3TLL4	0.9279	-0.108	0.2447	no change	no
Q8C1V4	1.698	0.7638	0.1705	up	no
Q922H2	1.128	0.1738	0.6865	no change	no
O09167	1.455	0.541	0.2278	up	no
Q921X9	0.8387	-0.2538	0.2498	no change	no
A0A2I3BPS3	0.6907	-0.5339	0.2572	down	no
Q8C605	1.053	0.07451	0.7408	no change	no
Q60718	0.8237	-0.2798	0.4639	down	no
Q8BVP5	0.6008	-0.735	0.08743	down	no
Q9DB77	1.021	0.02998	0.8295	no change	no
Q3TDX2	1.22	0.2869	0.05797	up	no
Q9DB15	0.9673	-0.04796	0.7846	no change	no
Q99PU8	0.9505	-0.07324	0.7404	no change	no
P54116	0.7291	-0.4558	0.06863	down	no
Q8BHA3	0.9011	-0.1502	0.3732	no change	no
P52293	1.003	0.004322	0.9777	no change	no
O54782	0.8336	-0.2626	0.4391	no change	no
P84091	0.9917	-0.01202	0.8226	no change	no
P47199	1.074	0.103	0.5444	no change	no
Q9QZM0	1.498	0.583	0.1749	up	no
Q3U646	1.082	0.1137	0.7472	no change	no
Q811J3	3.034	1.601	0.1159	up	no
A0PJE6	1.093	0.1283	0.2854	no change	no
A0A1Y7VMH3	1.018	0.02574	0.9395	no change	no
P57716	1.031	0.04404	0.5912	no change	no
A0A087WR13	0.866	-0.2076	0.05014	no change	no
Q3U026	0.9065	-0.1416	0.08635	no change	no
Q3UX26	0.87	-0.2009	0.5818	no change	no
Q5XK33	0.8236	-0.28	0.1279	down	no

E9PVG8	1.35	0.433	0.3277	up	no
Q91VT4	1.016	0.0229	0.8733	no change	no
A0A087WPF9	0.7486	-0.4177	0.21	down	no
E9PX53	0.751	-0.4131	0.0767	down	no
A0A2R8VHF9	1.241	0.3115	0.3373	up	no
A0A0B4J1F7	0.9077	-0.1397	0.5333	no change	no
Q3TFH8	1.155	0.2079	0.2114	no change	no
Q9R0D8	1.075	0.1043	0.7529	no change	no
G5E8L7	0.7873	-0.345	0.1963	down	no
E9Q4M4	1.025	0.03562	0.7857	no change	no
G5E8I4	0.8545	-0.2268	0.3964	no change	no
Q9D495	1.066	0.09221	0.7625	no change	no
P48678	1.085	0.1177	0.614	no change	no
A0A1L1SSA8	0.9087	-0.1381	0.3016	no change	no
A0A0U1RPF2	0.8356	-0.2591	0.2057	no change	no
Q402B2	0.7144	-0.4852	0.4443	down	no
A0A087WNS5	0.872	-0.1976	0.1362	no change	no
Q61941	0.9417	-0.08666	0.4614	no change	no
Q9QYF9	0.916	-0.1266	0.5904	no change	no
Q91XQ0	0.9764	-0.03446	0.7463	no change	no
Q3U3R4	1.035	0.04963	0.7745	no change	no
Q9WTL7	1.038	0.05381	0.9293	no change	no
A0A087WNT1	1.046	0.06488	0.8883	no change	no
P40336	1.021	0.02998	0.9468	no change	no
A2A8E2	0.7522	-0.4108	0.2515	down	no
A0A1W2P6X9	0.5339	-0.9054	0.3975	down	no
D3YZS5	0.926	-0.1109	0.3212	no change	no
E9QLL2	0.8342	-0.2615	0.1776	no change	no
Q00612	1.16	0.2141	0.2284	no change	no
Q08857	1.027	0.03844	0.6625	no change	no
E9PUD2	0.9958	-0.006072	0.9477	no change	no
Q5U4F6	0.8323	-0.2648	0.3156	no change	no
A0A1S6GWG6	0.685	-0.5458	0.1383	down	no
Q1MWP8	0.9494	-0.07491	0.8786	no change	no
A0A1S6GWG2	1.037	0.05242	0.6757	no change	no
Q9ERS2	1.156	0.2091	0.1876	no change	no
O70274	0.7029	-0.5086	0.6622	down	no
Q9CQ35	1.387	0.472	0.5685	up	no
A0A023J5Z6	1.047	0.06626	0.5314	no change	no
Q3UXJ3	0.973	-0.03949	0.9069	no change	no
O35286	0.893	-0.1633	0.5353	no change	no
O70503	1.511	0.5955	0.2196	up	no
D3YWA4	1.087	0.1204	0.6326	no change	no

A2BFF5	1.327	0.4082	0.2252	up	no
A0A0R4J0T0	1.284	0.3606	0.682	up	no
A0A0G2JF85	1.099	0.1362	0.6156	no change	no
D3YU75	0.8121	-0.3003	0.3864	down	no
A0A1Y7VM38	0.7767	-0.3646	0.3663	down	no
Q14B02	0.6516	-0.6179	0.1062	down	no
A2AQR0	0.7862	-0.347	0.3149	down	no
Q9CPY7	0.8427	-0.2469	0.2605	no change	no
O55201	2.201	1.138	0.08443	up	no
A2ATI6	1.165	0.2203	0.1633	no change	no
B7ZMP1	0.9687	-0.04588	0.6535	no change	no
Q505B1	0.5723	-0.8052	0.5205	down	no
P0CW70	1.235	0.3045	0.4519	up	no
Q50HX0	0.9848	-0.0221	0.8219	no change	no
Q05DE7	1.145	0.1953	0.06251	no change	no
P46460	1.095	0.1309	0.6692	no change	no
Q9CQD0	1.039	0.0552	0.9267	no change	no
Q3U7D2	1.028	0.03984	0.9134	no change	no
P62855	1.124	0.1686	0.6615	no change	no
B1AR28	1.287	0.364	0.1353	up	no
Q5F285	5.305	2.407	0.3981	up	no
A0A1W2P6P1	1.13	0.1763	0.4894	no change	no
P32261	1.165	0.2203	0.62	no change	no
Q80ZX8	1.016	0.0229	0.9713	no change	no
D3Z6I7	1.153	0.2054	0.1286	no change	no
A0A0R4J049	0.9043	-0.1451	0.2853	no change	no
Q8BMY8	1.022	0.0314	0.9805	no change	no
P49717	1.044	0.06212	0.912	no change	no
A6H630	0.9286	-0.1069	0.891	no change	no
P28666	0.7344	-0.4454	0.4921	down	no
Q3TIV3	1.131	0.1776	0.2074	no change	no
Q8K0C4	1.408	0.4936	0.3232	up	no
A2AN08	1.088	0.1217	0.2433	no change	no
Q3U0B3	1.043	0.06074	0.7244	no change	no
Q6P5E4	0.8689	-0.2027	0.4638	no change	no
A0A0A0MQG2	1.277	0.3528	0.1269	up	no
D3Z7P3	1.001	0.001442	0.9918	no change	no
Q3U2V3	0.9854	-0.02122	0.9192	no change	no
H9KV21	0.7698	-0.3774	0.2919	down	no
E9Q605	0.9639	-0.05304	0.9616	no change	no
Q60676	0.9698	-0.04424	0.8929	no change	no
Q64105	1.133	0.1801	0.3699	no change	no
Q3THW7	1.181	0.24	0.5764	no change	no

A2AQN4	1.285	0.3618	0.05831	up	no
E9Q4X2	0.9467	-0.07902	0.4216	no change	no
A0A1B0GSU0	1.004	0.005759	0.9654	no change	no
A0A140LIN9	0.8284	-0.2716	0.07983	down	no
O88696	2.045	1.032	0.06423	up	no
Q8C4Q6	0.8766	-0.19	0.5997	no change	no
E9PWY9	0.8007	-0.3207	0.1555	down	no
A0A1L1SS44	0.769	-0.3789	0.1941	down	no
A2ABY3	0.9907	-0.01348	0.9781	no change	no
P29758	1.051	0.07176	0.8023	no change	no
A0A0J9YTY6	1.173	0.2302	0.5598	no change	no
Q8BH64	0.7916	-0.3372	0.6151	down	no
Q3UIB5	1.025	0.03562	0.823	no change	no
Q7TPV0	1.223	0.2904	0.3231	up	no
Q3TCS0	1.325	0.406	0.2335	up	no
Q925I1	0.9957	-0.006217	0.9029	no change	no
E9Q616	1.252	0.3242	0.1805	up	no
Q8VDM6	1.037	0.05242	0.8003	no change	no
O09131	0.9455	-0.08085	0.7959	no change	no
A0A0R4J107	1.425	0.511	0.3899	up	no
Q6PHU5	0.7035	-0.5074	0.4931	down	no
Q4VBE8	125.5	6.972	0.2253	up	no
D3YVI6	0.9633	-0.05394	0.6841	no change	no
P97907	0.8531	-0.2292	0.05191	no change	no
Q9D1A2	0.8212	-0.2842	0.478	down	no
A0A0A0MQF2	1.002	0.002883	0.9989	no change	no
Q3V0Q1	0.8679	-0.2044	0.0627	no change	no
Q3TEU8	1.232	0.301	0.4344	up	no
A0A140LHG7	0.8104	-0.3033	0.09755	down	no
A0A2I3BQE3	0.6996	-0.5154	0.4148	down	no
A8IP90	0.9543	-0.06749	0.6929	no change	no
Q5F258	1.428	0.514	0.0608	up	no
Q3USZ5	1.293	0.3707	0.1054	up	no
P41241	1.337	0.419	0.4308	up	no
Q9WTK3	0.9141	-0.1296	0.7842	no change	no
Q3ULJ0	1.015	0.02148	0.8121	no change	no
Q8CEW9	1.061	0.08542	0.7827	no change	no
Q8R059	0.9053	-0.1435	0.06146	no change	no
Q8K1C0	0.7154	-0.4832	0.294	down	no
D3YUS1	0.8638	-0.2112	0.3783	no change	no
P62257	1.52	0.6041	0.2439	up	no
A0A1S6GW15	1.12	0.1635	0.585	no change	no

J7I1C3	0.5093	-0.9734	0.2924	down	no
Q91YR1	1.487	0.5724	0.3837	up	no
D3Z3G6	0.7431	-0.4284	0.505	down	no
A0A0R4J259	1.305	0.384	0.1328	up	no
A0A0R4J225	1.034	0.04824	0.8831	no change	no
A0A338P7B7	0.8344	-0.2612	0.4872	no change	no
O35945	1.567	0.648	0.0698	up	no
Q3TKH5	0.8337	-0.2624	0.5163	no change	no
Q6ZWY7	1.117	0.1596	0.0743	no change	no
Q9CQW1	0.6256	-0.6767	0.07198	down	no
A0A5F8MPY2	0.9919	-0.01173	0.9639	no change	no
P97470	0.8379	-0.2552	0.5839	no change	no
A0A0U1RNT1	0.7483	-0.4183	0.05101	down	no
Q3UEB3	1.019	0.02715	0.9234	no change	no
E9QNR9	0.6744	-0.5683	0.1031	down	no
Q9DAJ2	0.9084	-0.1386	0.5745	no change	no
D3Z7Q3	0.7029	-0.5086	0.1087	down	no
A2AW05	1.116	0.1583	0.2875	no change	no
P14685	0.8707	-0.1998	0.228	no change	no
Q61503	0.6921	-0.5309	0.1526	down	no
Q5NCF2	0.8821	-0.181	0.5487	no change	no
Q9EQ06	0.8015	-0.3192	0.3415	down	no
Q9CQ21	0.918	-0.1234	0.6594	no change	no
Q3U5F4	1.131	0.1776	0.591	no change	no
Q9QY05	0.7707	-0.3758	0.4254	down	no
Q91ZW3	1.054	0.07587	0.2602	no change	no
E9PUC2	0.854	-0.2277	0.3633	no change	no
P84096	0.9744	-0.03741	0.617	no change	no
Q6YJU1	0.88	-0.1844	0.5565	no change	no
Q3UL02	0.6588	-0.6021	0.515	down	no
B9EKI3	0.7868	-0.3459	0.2863	down	no
Q7TSG5	0.6681	-0.5819	0.2107	down	no
Q8K224	0.2896	-1.788	0.2797	down	no
A0A494BBD3	0.007587	-7.042	0.3772	down	no
Q8BH24	0.8484	-0.2372	0.1004	no change	no
K3W4S6	0.6858	-0.5441	0.5226	down	no
F2Z456	0.8751	-0.1925	0.7527	no change	no
Q3UIM5	1.374	0.4584	0.241	up	no
P23578	0.991	-0.01304	0.9829	no change	no
A0ZNJ2	0.939	-0.0908	0.5157	no change	no
Q9CU62	4.095	2.034	0.1893	up	no
Q9DC23	0.8512	-0.2324	0.4847	no change	no
Q80X70	0.9434	-0.08406	0.6348	no change	no

A0A338P6N4	1.08	0.111	0.7132	no change	no
Q8BTZ7	0.739	-0.4364	0.2741	down	no
Q8R189	1.011	0.01578	0.9777	no change	no
Q9WU65	0.7507	-0.4137	0.1388	down	no
Q3TBA2	1.273	0.3482	0.1856	up	no
Q3UJP8	0.9989	-0.001588	0.989	no change	no
B2RXT3	0.973	-0.03949	0.9663	no change	no
O35405	0.7179	-0.4781	0.5779	down	no
B2RXS4	2.536	1.343	0.4451	up	no
F6V084	0.6458	-0.6308	0.05603	down	no
Q9DAC6	1.101	0.1388	0.6871	no change	no
Q3V1L7	2.005	1.004	0.6038	up	no
A2AUD5	0.8997	-0.1525	0.5688	no change	no
A0A286R3P5	1.033	0.04684	0.6049	no change	no
A0A0U1RPM3	0.9263	-0.1104	0.7639	no change	no
A0A087WP83	1.074	0.103	0.7917	no change	no
A0A087WNV1	0.8525	-0.2302	0.6251	no change	no
Q8CD92	0.254	-1.977	0.1842	down	no
A0A1B0GSX0	0.7476	-0.4197	0.4057	down	no
Q9DBU8	1.085	0.1177	0.4587	no change	no
Q3TZP3	0.8377	-0.2555	0.6734	no change	no
Q78JW9	0.8955	-0.1592	0.6031	no change	no
P25206	0.6564	-0.6074	0.07848	down	no
G3UWS4	0.734	-0.4461	0.09035	down	no
G5E866	0.643	-0.6371	0.1726	down	no
P70188	0.8534	-0.2287	0.4737	no change	no
Q8C570	0.9038	-0.1459	0.9313	no change	no
Q8BGS2	0.5368	-0.8975	0.05978	down	no
Q3UZ17	1.22	0.2869	0.1417	up	no
A0A0R4J1A9	0.5829	-0.7787	0.09523	down	no
A0A0R4J2A3	1.172	0.229	0.5939	no change	no
P54823	1.353	0.4362	0.118	up	no
E9Q919	1.427	0.513	0.05388	up	no
A2A520	0.894	-0.1617	0.4633	no change	no
Q8R086	1.11	0.1506	0.8066	no change	no
D3YV10	1.201	0.2642	0.1696	up	no
A0A023J612	0.8615	-0.2151	0.6346	no change	no
Q9DB29	1.156	0.2091	0.4186	no change	no
A0A0N4SVL9	0.6357	-0.6536	0.4063	down	no
Q6A099	1.152	0.2041	0.1008	no change	no
A0A1B0GRA5	0.3566	-1.488	0.1025	down	no
Q8CGF7	1.239	0.3092	0.4051	up	no
Q9D2U5	0.4474	-1.16	0.05288	down	no

Q3TA75	1.243	0.3138	0.06059	up	no
Q9QXK3	0.8787	-0.1866	0.6138	no change	no
P16332	0.9471	-0.07841	0.8743	no change	no
A0A087WSG3	0.7525	-0.4102	0.08005	down	no
Q8C552	1.113	0.1545	0.6986	no change	no
Q3UA06	1.604	0.6817	0.5177	up	no
Q91V61	1.168	0.224	0.486	no change	no
Q3TVU9	1.025	0.03562	0.7791	no change	no
Q3TJ28	1.095	0.1309	0.4371	no change	no
Q3UFK7	0.8729	-0.1961	0.2076	no change	no
Q3TUU3	0.7943	-0.3322	0.3645	down	no
Q2MH31	1.015	0.02148	0.9053	no change	no
P63276	1.117	0.1596	0.1533	no change	no
O35857	0.7169	-0.4802	0.2041	down	no
D3Z1L4	1.581	0.6608	0.6267	up	no
A0A2I3BQ07	0.604	-0.7274	0.1323	down	no
A0A1L1SSH9	1.224	0.2916	0.09112	up	no
G3X920	0.5878	-0.7666	0.5146	down	no
P61021	0.3237	-1.627	0.4219	down	no
Q9CQ66	0.9333	-0.09959	0.752	no change	no
P42669	1.329	0.4103	0.0705	up	no
Q9R0Q6	1.615	0.6915	0.3991	up	no
A0A0R4J160	1.394	0.4792	0.05266	up	no
Q9D9A5	0.8362	-0.2581	0.3954	no change	no
Q99LC5	1.045	0.0635	0.7708	no change	no
Q9WVJ3	1.543	0.6257	0.15	up	no
Q920L1	0.8306	-0.2678	0.5653	no change	no
A0A2R8VI07	1.226	0.294	0.4217	up	no
B2CKC6	0.8988	-0.1539	0.7695	no change	no
Q8BJL1	0.5323	-0.9097	0.2545	down	no
A0A0R4J023	1.058	0.08134	0.5881	no change	no
Q99PL6	0.6957	-0.5235	0.2105	down	no
Q8BWZ3	0.8794	-0.1854	0.4364	no change	no
P47226	0.7888	-0.3423	0.4939	down	no
P62702	0.8869	-0.1732	0.1989	no change	no
Q9DBS1	1.41	0.4957	0.3827	up	no
A0A0R4J018	0.8993	-0.1531	0.5801	no change	no
Q8K298	1.536	0.6192	0.289	up	no
Q99LC3	1.012	0.01721	0.8987	no change	no
E9QQ38	0.6971	-0.5206	0.3613	down	no
Q3UVK0	0.8379	-0.2552	0.6707	no change	no
A0A087WQB0	1.196	0.2582	0.05294	no change	no
Q9DCL9	1.561	0.6425	0.3489	up	no

Q80U72	0.6009	-0.7348	0.1024	down	no
Q8BY26	0.3238	-1.627	0.09641	down	no
Q5U458	0.8498	-0.2348	0.284	no change	no
Q3TXN6	0.7889	-0.3421	0.3556	down	no
Q3TXV4	0.5185	-0.9476	0.4909	down	no
Q9D9P2	0.4651	-1.104	0.1126	down	no
Q3TXK6	1.256	0.3288	0.05302	up	no
A0A0J9YUG1	1.573	0.6535	0.5082	up	no
Q8R2Y2	0.8046	-0.3137	0.4712	down	no
Q9JKX6	0.9788	-0.03091	0.9215	no change	no
A0A0R4J250	0.6113	-0.71	0.1568	down	no
A2AFQ0	1.133	0.1801	0.4486	no change	no
J3QMM7	0.9909	-0.01319	0.9348	no change	no
Q3TY72	1.638	0.7119	0.0746	up	no
Q8R016	1.478	0.5636	0.3646	up	no
A0A0A0MQ80	1.103	0.1414	0.5429	no change	no
Q8BVQ0	1.052	0.07313	0.5335	no change	no
A0A087WQM0	1.134	0.1814	0.5017	no change	no
A0A1L1SSF2	0.7669	-0.3829	0.05934	down	no
E9Q496	0.5467	-0.8712	0.3101	down	no
Q6ZPT2	0.7974	-0.3266	0.2691	down	no
Q3U1V6	0.1313	-2.929	0.4057	down	no
A0A0R4J275	0.8453	-0.2425	0.5196	no change	no
D3Z165	1.207	0.2714	0.4318	up	no
P53986	1.561	0.6425	0.1506	up	no
A2AJH3	1.041	0.05797	0.7219	no change	no
Q6PGB6	0.5592	-0.8386	0.4833	down	no
Q8CGB9	0.7089	-0.4963	0.1481	down	no
D6RG95	1.195	0.257	0.5433	no change	no
P46664	0.5252	-0.9291	0.0586	down	no
A2ARI0	1.102	0.1401	0.4804	no change	no
Q3V3W7	1.093	0.1283	0.5183	no change	no
Q99MR6	1.375	0.4594	0.06675	up	no
A0A1L1SRT5	1.029	0.04124	0.8814	no change	no
P09055	0.8509	-0.2329	0.2191	no change	no
Q6NV83	1.273	0.3482	0.3646	up	no
A0A1Y7VJM4	0.8437	-0.2452	0.3665	no change	no
P30681	1.433	0.519	0.1016	up	no
Q14C51	0.892	-0.1649	0.6473	no change	no
B1AVB1	1.079	0.1097	0.4871	no change	no
A2ASL8	0.6257	-0.6765	0.2812	down	no
F6U6Z2	1.103	0.1414	0.6347	no change	no
A0A2I3BQV5	1.235	0.3045	0.3127	up	no

Q8R3H6	1.212	0.2774	0.1167	up	no
A0A1L1SQ41	0.6002	-0.7365	0.06872	down	no
Q9R0X4	1.019	0.02715	0.8703	no change	no
D3Z0Y8	0.7601	-0.3957	0.1529	down	no
G3XA48	1.214	0.2798	0.124	up	no
Q3TG21	0.8302	-0.2685	0.3684	no change	no
A0JNY7	1.156	0.2091	0.3121	no change	no
P63271	0.9075	-0.14	0.3416	no change	no
Q99PG4	0.9685	-0.04618	0.3811	no change	no
Q3UIJ2	1.132	0.1789	0.681	no change	no
A0A494BB86	0.4606	-1.118	0.477	down	no
A0A286YDY4	0.5782	-0.7904	0.1273	down	no
B2RY50	1.229	0.2975	0.5884	up	no
Q9QZA0	1.887	0.9161	0.05363	up	no
A0A0A6YXI2	0.5485	-0.8664	0.1114	down	no
Q3UDS4	0.8149	-0.2953	0.1638	down	no
Q9Z329	1.317	0.3973	0.1923	up	no
E0CYQ2	1.251	0.3231	0.3351	up	no
Q8VBT9	1.367	0.451	0.2671	up	no
E9Q800	0.9341	-0.09835	0.6973	no change	no
Q3UPL0	1.004	0.005759	0.972	no change	no
O35218	0.9978	-0.003177	0.9939	no change	no
D3YZZ5	0.9256	-0.1115	0.2338	no change	no
O54887	1.018	0.02574	0.5301	no change	no
A0A1L1SV73	1.366	0.45	0.3522	up	no
A1A4B2	0.9228	-0.1159	0.7875	no change	no
Q8JZN7	0.6373	-0.65	0.06558	down	no
Q3URR4	0.5195	-0.9448	0.2216	down	no
A0A494B9T0	1.155	0.2079	0.4029	no change	no
A0A494B9X3	0.9146	-0.1288	0.6735	no change	no
P97310	1.52	0.6041	0.177	up	no
F6RJV6	0.7358	-0.4426	0.2038	down	no
Q8BRM1	1.536	0.6192	0.1477	up	no
O88271	0.6605	-0.5984	0.1934	down	no
A0A0R4J113	0.9812	-0.02738	0.9395	no change	no
Q8VDK1	0.3245	-1.624	0.2908	down	no
Q8K0T2	2.099	1.07	0.2529	up	no
Q6TEK5	1.202	0.2654	0.2191	up	no
Q3U9P7	1.117	0.1596	0.7626	no change	no
P59325	0.8496	-0.2351	0.2164	no change	no
Q1PG84	0.677	-0.5628	0.751	down	no
Q6PB66	1.149	0.2004	0.2218	no change	no
A0A5F8MQ05	0.283	-1.821	0.09921	down	no

A0A286YCC7	1.146	0.1966	0.2951	no change	no
Q9D9V9	0.2201	-2.184	0.3942	down	no
Q8CGW9	0.8767	-0.1898	0.6992	no change	no
A2AFI6	0.8493	-0.2357	0.551	no change	no
Q91ZR1	1.085	0.1177	0.5917	no change	no
P62488	1.105	0.144	0.05856	no change	no
P21619	1.969	0.9775	0.3461	up	no
Q3TN26	1.765	0.8197	0.1327	up	no
Q8CH72	1.168	0.224	0.6109	no change	no
P61161	1.54	0.6229	0.126	up	no
Q3U890	1.072	0.1003	0.3026	no change	no
P54731	0.9696	-0.04454	0.6552	no change	no
A0A2I3BQE0	1.066	0.09221	0.7041	no change	no
Q8C140	0.963	-0.05439	0.7547	no change	no
Q8CJG0	2.548	1.349	0.3127	up	no
E9PX23	1.105	0.144	0.6159	no change	no
Q9D4K7	0.5938	-0.752	0.06451	down	no
Q04736	0.7789	-0.3605	0.3553	down	no
Q91YN1	0.7452	-0.4243	0.4168	down	no
Q8QZY1	0.799	-0.3237	0.1683	down	no
A0A1B0GR13	1.092	0.127	0.7978	no change	no
O55137	1.046	0.06488	0.7213	no change	no
A0A0R4J263	1.195	0.257	0.0623	no change	no
Q3UDQ7	1.063	0.08814	0.8742	no change	no
P31938	1.525	0.6088	0.2874	up	no
Q9ESW4	0.907	-0.1408	0.553	no change	no
Q62432	1.223	0.2904	0.2216	up	no
A0A1D5RLT3	0.9669	-0.04856	0.8953	no change	no
A0A494B9Y9	1.063	0.08814	0.7958	no change	no
B7ZCS4	0.9705	-0.0432	0.9584	no change	no
D3Z690	0.7266	-0.4608	0.1553	down	no
Q9WUQ2	0.9108	-0.1348	0.6285	no change	no
Q3U184	0.9399	-0.08942	0.6303	no change	no
Q61838	0.8528	-0.2297	0.167	no change	no
Q3TKC5	0.5484	-0.8667	0.05322	down	no
E9Q3N0	1.972	0.9797	0.2707	up	no
A2AMV1	1.074	0.103	0.4211	no change	no
A2AT37	1.396	0.4813	0.2814	up	no
Q7M739	1.267	0.3414	0.3084	up	no
A0A5F8MPW1	1.063	0.08814	0.8127	no change	no
G3UWH9	1.987	0.9906	0.3846	up	no
Q3U926	0.9376	-0.09296	0.8825	no change	no
Q91X21	1.192	0.2534	0.323	no change	no

Q5SUR0	1.029	0.04124	0.6833	no change	no
Q9D571	0.8489	-0.2363	0.3884	no change	no
Q9D0Q7	0.9666	-0.04901	0.8951	no change	no
Q9CPV0	1.118	0.1609	0.517	no change	no
Q05BY0	1.427	0.513	0.2452	up	no
A2AJY2	0.5613	-0.8332	0.4021	down	no
Q3TJX0	0.9826	-0.02532	0.9737	no change	no
D3Z1T0	0.6634	-0.592	0.4023	down	no
Q8R2U6	1.018	0.02574	0.964	no change	no
O88746	0.8999	-0.1522	0.4773	no change	no
Q99LC8	1.301	0.3796	0.3552	up	no
A0A1D5RLS1	1.221	0.2881	0.2055	up	no
E9QKZ2	1.008	0.0115	0.9875	no change	no
P10493	1.054	0.07587	0.6184	no change	no
P63094	0.6665	-0.5853	0.3007	down	no
Q63918	2.189	1.13	0.5993	up	no
Q9CWD0	0.5307	-0.914	0.09995	down	no
D3Z780	0.9857	-0.02078	0.9413	no change	no
G5E8A7	0.9293	-0.1058	0.8133	no change	no
Q8VHE0	0.8234	-0.2803	0.2345	down	no
Q9QYS9	0.6768	-0.5632	0.323	down	no
D3Z375	1.164	0.2191	0.6062	no change	no
F8VQJ3	0.8448	-0.2433	0.6802	no change	no
Q3TYX3	0.9887	-0.0164	0.9233	no change	no
Q8VE92	0.7857	-0.3479	0.7076	down	no
F7CB97	0.6963	-0.5222	0.5029	down	no
Q3TW21	1.315	0.3951	0.05209	up	no
E9Q933	0.5691	-0.8132	0.05206	down	no
Q3TQD9	1.077	0.107	0.8455	no change	no
A0A494BAQ4	1.305	0.384	0.2197	up	no
E9Q852	0.9905	-0.01377	0.9901	no change	no
Q91YR7	0.7505	-0.4141	0.3239	down	no
Q5SUE7	1.049	0.06901	0.8306	no change	no
Q9QYB1	1.14	0.189	0.8589	no change	no
Q3UKJ7	0.5092	-0.9737	0.3345	down	no
Q9D5W0	0.9342	-0.0982	0.5496	no change	no
Q9R0P5	0.8538	-0.228	0.5684	no change	no
B8X349	0.9056	-0.1431	0.7177	no change	no
P46467	1.497	0.5821	0.2104	up	no
Q3V0F0	1.688	0.7553	0.1513	up	no
Q3U536	0.6518	-0.6175	0.2757	down	no
Q8BFT2	1.24	0.3103	0.4482	up	no
Q9D8Z1	0.9224	-0.1165	0.7477	no change	no

D3YUG3	0.9811	-0.02753	0.9482	no change	no
O35594	1.359	0.4425	0.5231	up	no
A0A087WNZ7	0.9852	-0.02151	0.8597	no change	no
Q8R2Y0	0.7916	-0.3372	0.6753	down	no
A0A5F8MPK9	0.5413	-0.8855	0.1687	down	no
Q80ZQ3	0.8694	-0.2019	0.6525	no change	no
E9Q586	0.8521	-0.2309	0.3187	no change	no
P54728	1.082	0.1137	0.2825	no change	no
A0A0G2JFZ8	1.392	0.4772	0.07912	up	no
A2BGI8	1.149	0.2004	0.5445	no change	no
Q8BHC2	1.038	0.05381	0.8919	no change	no
Q8K1J6	0.6661	-0.5862	0.2003	down	no
Q9D0B6	1.047	0.06626	0.5469	no change	no
O35685	1.004	0.005759	0.9783	no change	no
Q9JJY4	0.8565	-0.2235	0.2986	no change	no
A0A286YD12	0.8268	-0.2744	0.3596	down	no
D3Z5K6	0.849	-0.2362	0.4129	no change	no
A0A5F8MPP1	0.8022	-0.318	0.05087	down	no
A0A1L1SVG6	0.9637	-0.05334	0.7958	no change	no
Q91XL1	1.078	0.1084	0.8341	no change	no
Q9D880	0.9462	-0.07978	0.5324	no change	no
Q9D115	0.8397	-0.2521	0.2377	no change	no
D3YVW9	0.5957	-0.7473	0.1413	down	no
Q9R099	0.987	-0.01888	0.9652	no change	no
Q3TYA6	0.8265	-0.2749	0.5302	down	no
Q3ULC7	1.212	0.2774	0.554	up	no
Q810A7	0.9842	-0.02298	0.7667	no change	no
Q32M07	0.9204	-0.1197	0.5427	no change	no
A0A0A0MQC6	2.573	1.363	0.5057	up	no
E9PZJ8	0.1157	-3.112	0.2804	down	no
Q91WM2	0.8615	-0.2151	0.0879	no change	no
A2AHM1	0.8428	-0.2467	0.1462	no change	no
E9Q973	2.155	1.108	0.2638	up	no
Q3TAI8	0.8273	-0.2735	0.7257	down	no
A0A6I8MWX8	1.536	0.6192	0.05564	up	no
P60487	0.05705	-4.132	0.1489	down	no
Q8BXZ1	0.8964	-0.1578	0.8362	no change	no
D3YW09	1.022	0.0314	0.9255	no change	no
Q3U4S7	0.9199	-0.1205	0.4034	no change	no
Q6P8J2	0.982	-0.02621	0.937	no change	no
Q8BXA5	0.9621	-0.05574	0.919	no change	no
B2RWW1	1.016	0.0229	0.9714	no change	no
Q9D2R0	1.4	0.4854	0.4985	up	no

Q6P1H6	0.3744	-1.417	0.4603	down	no
P01867	1.501	0.5859	0.08124	up	no
A0A140LI02	0.8754	-0.192	0.4491	no change	no
A0A0A6YW28	0.8928	-0.1636	0.5096	no change	no
Q7TSH2	0.9012	-0.1501	0.6376	no change	no
Q8BUI3	0.9463	-0.07963	0.9202	no change	no
Q715T0	0.9062	-0.1421	0.5581	no change	no
A0A0R4J034	0.7838	-0.3514	0.3425	down	no
Q9WVQ5	0.9696	-0.04454	0.9487	no change	no
Q9CQE8	1.159	0.2129	0.7259	no change	no
E9PWQ6	0.9758	-0.03534	0.8269	no change	no
Q9WTX7	0.9547	-0.06688	0.6173	no change	no
P49615	1.01	0.01436	0.8231	no change	no
H7BWZ3	0.1197	-3.063	0.3734	down	no
A0A2R8VKC7	0.5238	-0.9329	0.3401	down	no
J3QPW1	1.223	0.2904	0.4075	up	no
A0A3B2WB82	0.7412	-0.4321	0.2152	down	no
Q3UDE2	0.9792	-0.03032	0.9127	no change	no
Q3U7M5	1.145	0.1953	0.3841	no change	no
K3W4R2	1.135	0.1827	0.6205	no change	no
Q8K297	1.26	0.3334	0.1808	up	no
Q8BGB7	1.067	0.09356	0.5361	no change	no
Q9CZN7	1.171	0.2277	0.7307	no change	no
Q62029	0.9696	-0.04454	0.6469	no change	no
Q80X90	0.9466	-0.07917	0.4229	no change	no
A4FTZ0	2.213	1.146	0.1274	up	no
P97819	1.147	0.1979	0.4952	no change	no
Q9D3R3	1.298	0.3763	0.1106	up	no
Q3UGF1	0.9277	-0.1083	0.5937	no change	no
O54724	1.716	0.779	0.1033	up	no
Q9JLI7	0.9441	-0.08299	0.8944	no change	no
Q8BP60	1.385	0.4699	0.3312	up	no
H3BIX4	1.148	0.1991	0.4298	no change	no
Q3UJS6	1.144	0.1941	0.6266	no change	no
A0A571BDP7	1.006	0.00863	0.9806	no change	no
I3ITR1	0.8067	-0.3099	0.3288	down	no
Q3UI84	1.038	0.05381	0.7534	no change	no
P24527	1.175	0.2327	0.399	no change	no
Q9JL35	1.307	0.3863	0.07758	up	no
B9EJR8	1.77	0.8237	0.28	up	no
P47758	1.173	0.2302	0.2676	no change	no
A0A1B0GRX7	1.192	0.2534	0.5113	no change	no
Q8VE70	0.9226	-0.1162	0.3318	no change	no

Q3TF40	1.279	0.355	0.2907	up	no
Q3THP1	1.891	0.9191	0.2822	up	no
Q61768	1.114	0.1557	0.4814	no change	no
E9Q9G8	0.839	-0.2533	0.2018	no change	no
Q8R1N4	0.8434	-0.2457	0.7659	no change	no
Q8C0L9	0.4968	-1.009	0.09982	down	no
Q8VHR5	1.526	0.6098	0.2884	up	no
A0AUM9	0.8847	-0.1767	0.8035	no change	no
P15327	0.7323	-0.4495	0.06145	down	no
Q00915	1.231	0.2998	0.4039	up	no
A0A494BA07	1.03	0.04264	0.9233	no change	no
P70362	0.9616	-0.05649	0.8635	no change	no
A0A1S6GWG9	0.8673	-0.2054	0.1382	no change	no
Q3TXH8	1.036	0.05102	0.8316	no change	no
A0A0R4J0L5	0.8568	-0.223	0.4108	no change	no
I6TGM1	0.5923	-0.7556	0.05143	down	no
Q9DBS5	1.621	0.6969	0.6266	up	no
Q7TSE6	1.411	0.4967	0.1933	up	no
P97377	1.77	0.8237	0.2104	up	no
A0A286YCS4	0.8067	-0.3099	0.05357	down	no
A0A0R4J0W6	1.138	0.1865	0.09458	no change	no
Q3TJ78	1.813	0.8584	0.2021	up	no
Q3TEB9	1.196	0.2582	0.5539	no change	no
Q9DAG6	0.7583	-0.3992	0.1035	down	no
A0A0G2JEC4	1.128	0.1738	0.6016	no change	no
Q9DCM2	1.149	0.2004	0.6683	no change	no
Q99JZ9	0.7266	-0.4608	0.1893	down	no
D3YZE7	0.5107	-0.9695	0.06821	down	no
F6WHQ7	0.9826	-0.02532	0.9542	no change	no
Q3UKA1	1.38	0.4647	0.1258	up	no
A0A2R8VHI2	1.004	0.005759	0.9896	no change	no
Q2XU92	2.521	1.334	0.5295	up	no
P35278	0.965	-0.0514	0.7912	no change	no
A0A0N4SV80	1.451	0.537	0.2013	up	no
Q3UMU9	0.8992	-0.1533	0.4201	no change	no
Q8VD46	1.521	0.605	0.3667	up	no
Q64378	1.072	0.1003	0.4847	no change	no
H9KV00	0.6576	-0.6047	0.1761	down	no
D6RDE8	1.315	0.3951	0.282	up	no
D3Z5R4	1.345	0.4276	0.05979	up	no
P51655	0.9816	-0.02679	0.8907	no change	no
A1Z2X7	0.6096	-0.7141	0.1737	down	no
O35295	0.5549	-0.8497	0.1984	down	no

Q9D385	0.8014	-0.3194	0.4899	down	no
Q3TFQ1	0.7103	-0.4935	0.2739	down	no
Q6ZQK1	1.436	0.5221	0.5674	up	no
A0A494B9X9	1.066	0.09221	0.4858	no change	no
P23492	0.9758	-0.03534	0.8972	no change	no
Q5XKN4	0.7879	-0.3439	0.2217	down	no
Q6P5E5	0.8794	-0.1854	0.3191	no change	no
P97742	1.23	0.2987	0.1758	up	no
B2RUN1	1.782	0.8335	0.09034	up	no
Q8BWD8	1.065	0.09085	0.6804	no change	no
O70310	0.9634	-0.05379	0.8811	no change	no
O35691	1.009	0.01293	0.9309	no change	no
Q8BVU5	0.4714	-1.085	0.2935	down	no
E9PV22	0.8529	-0.2296	0.575	no change	no
A0A0J9YU62	0.9034	-0.1466	0.3787	no change	no
E9Q6A9	1.282	0.3584	0.4769	up	no
Q99JT9	0.8598	-0.2179	0.3176	no change	no
B2RQC2	0.8918	-0.1652	0.5727	no change	no
Q922Q6	0.8183	-0.2893	0.4021	down	no
D3YW54	1.195	0.257	0.1889	no change	no
Q91YL2	0.7985	-0.3246	0.3638	down	no
Q8BH15	1.171	0.2277	0.6352	no change	no
D3Z6S1	0.536	-0.8997	0.3526	down	no
P70335	0.9662	-0.04961	0.9673	no change	no
A0A2R8VK76	0.8044	-0.314	0.05271	down	no
P51859	1.188	0.2485	0.4282	no change	no
P83741	0.9667	-0.04886	0.8013	no change	no
Q8BTY1	1.081	0.1124	0.6943	no change	no
A2AAN2	0.8004	-0.3212	0.3534	down	no
Q99LS3	1.039	0.0552	0.7965	no change	no
A0A087WRE5	0.9683	-0.04647	0.6312	no change	no
A0A1D5RMJ8	1.001	0.001442	0.9961	no change	no
A0A0N4SUH8	1.124	0.1686	0.06313	no change	no
Q3TDL0	1.009	0.01293	0.9617	no change	no
Q91WU5	1.5	0.585	0.1593	up	no
P12815	1.192	0.2534	0.3585	no change	no
E0CY07	1.052	0.07313	0.7311	no change	no
Q3V493	1.22	0.2869	0.4759	up	no
A0A0R4J187	1.135	0.1827	0.4254	no change	no
A0A0A6YWQ9	1.096	0.1322	0.8165	no change	no
Q9DA97	0.6522	-0.6166	0.2707	down	no
Q3TLR7	2.297	1.2	0.07953	up	no
B9EKC1	2.197	1.136	0.07415	up	no

Q8C0L8	0.8173	-0.2911	0.399	down	no
Q3UK24	0.9118	-0.1332	0.8348	no change	no
Q9CQJ8	1.156	0.2091	0.5407	no change	no
F6UTB8	1.227	0.2951	0.2304	up	no
P49442	0.8963	-0.1579	0.4233	no change	no
A0A1L1SQA2	1.025	0.03562	0.9112	no change	no
Q3TAA8	1.023	0.03281	0.82	no change	no
P42128	0.969	-0.04543	0.9343	no change	no
A0A338P7C0	1.406	0.4916	0.2257	up	no
A0A0R4J1P5	0.4713	-1.085	0.1294	down	no
Q3UKC1	0.7958	-0.3295	0.06586	down	no
Q3TIX9	0.8011	-0.3199	0.7526	down	no
P62748	1.108	0.148	0.4981	no change	no
A0A0R4J288	0.9519	-0.07112	0.7868	no change	no
Q8BH59	0.6932	-0.5287	0.3777	down	no
Q8CHW4	1.014	0.02006	0.9512	no change	no
Q3U9G9	0.9251	-0.1123	0.783	no change	no
Q3V0Q6	1.028	0.03984	0.9166	no change	no
A0A0R4J0V4	1.781	0.8327	0.1392	up	no
P49070	1.15	0.2016	0.425	no change	no
P97346	1.428	0.514	0.07367	up	no
D3Z2B3	0.9056	-0.1431	0.5523	no change	no
Q3KNI6	1.319	0.3994	0.1055	up	no
D3YTQ3	1.289	0.3663	0.4375	up	no
O54962	0.6775	-0.5617	0.4856	down	no
A0A0R4J078	1.02	0.02857	0.75	no change	no
Q80ZJ1	1.177	0.2351	0.1576	no change	no
A0A286YDL9	1.082	0.1137	0.3691	no change	no
Q9CPX6	0.8336	-0.2626	0.3408	no change	no
D3Z0S6	1.073	0.1017	0.7742	no change	no
Q99N87	0.6901	-0.5351	0.09623	down	no
Q3V157	0.9976	-0.003467	0.9922	no change	no
A2AU60	1.187	0.2473	0.3725	no change	no
F8WIC0	1.078	0.1084	0.8197	no change	no
P20060	1.59	0.669	0.2695	up	no
B1AT36	0.8151	-0.295	0.6307	down	no
Q6P1E8	0.9095	-0.1369	0.4772	no change	no
Q9DCS3	1.045	0.0635	0.708	no change	no
Q0VG59	1.058	0.08134	0.5409	no change	no
P16254	0.9589	-0.06055	0.8241	no change	no
Q8K0U4	0.6587	-0.6023	0.3151	down	no
Q9Z0W3	0.5989	-0.7396	0.5381	down	no
Q3TGB1	1.239	0.3092	0.4284	up	no

D3YYV8	1.002	0.002883	0.9931	no change	no
Q6ZQ58	0.9613	-0.05694	0.5117	no change	no
M0QWP1	0.4093	-1.289	0.1201	down	no
A0A1I7Q4G8	0.7582	-0.3993	0.3265	down	no
P00493	0.8465	-0.2404	0.5203	no change	no
Q3UGB8	0.5274	-0.923	0.2557	down	no
A0A1Y7VN70	1.026	0.03703	0.8588	no change	no
Q3TT70	1.066	0.09221	0.9062	no change	no
E9PZC3	1.958	0.9694	0.184	up	no
Q3UB60	0.8717	-0.1981	0.7502	no change	no
Q2TBE6	0.5924	-0.7554	0.5754	down	no
G3X982	0.06003	-4.058	0.3545	down	no
A0A0U1RQ37	0.8148	-0.2955	0.4789	down	no
A2A848	1.531	0.6145	0.05486	up	no
Q01339	1.157	0.2104	0.3419	no change	no
A2AK42	1.149	0.2004	0.6704	no change	no
Q9Z1T1	0.9176	-0.1241	0.1902	no change	no
B1AQZ2	0.7863	-0.3468	0.8121	down	no
A0A1L1STC0	1.221	0.2881	0.3538	up	no
Q0HA38	0.8275	-0.2732	0.3642	down	no
A0A0R4J1M0	1.025	0.03562	0.9628	no change	no
D3YVJ6	1.442	0.5281	0.08993	up	no
Q925K9	0.6876	-0.5404	0.5188	down	no
A0A0R4J0I6	0.8658	-0.2079	0.3614	no change	no
E9Q421	0.6244	-0.6795	0.3852	down	no
Q8BRC6	0.6982	-0.5183	0.4686	down	no
Q91YE7	0.8555	-0.2252	0.7092	no change	no
B7ZMZ6	1.588	0.6672	0.1328	up	no
Q9ERU9	1.176	0.2339	0.3657	no change	no
D3YYW8	0.9244	-0.1134	0.5137	no change	no
Q8BND3	0.9541	-0.06779	0.8741	no change	no
A0A0N4SVL0	0.9274	-0.1087	0.8288	no change	no
O88512	0.6729	-0.5715	0.1862	down	no
Q3U728	1.279	0.355	0.08901	up	no
A0A1B0GSX6	0.91	-0.1361	0.8015	no change	no
A0A0A6YWP9	0.5761	-0.7956	0.06813	down	no
Q99LC2	0.8317	-0.2659	0.1615	no change	no
Q6VH22	1.067	0.09356	0.5199	no change	no
P24547	3.002	1.586	0.3939	up	no
E9Q039	0.9481	-0.07689	0.7544	no change	no
Q8BG37	4.239	2.084	0.4352	up	no
Q9JLB9	0.7569	-0.4018	0.3052	down	no
P32233	1.003	0.004322	0.9886	no change	no

Q8K212	1.061	0.08542	0.563	no change	no
Q99LE6	0.8861	-0.1745	0.3292	no change	no
Q8C145	0.4025	-1.313	0.1891	down	no
Q0VDW5	0.5415	-0.885	0.3496	down	no
D3Z3K2	1.126	0.1712	0.7551	no change	no
Q6NSU3	1.117	0.1596	0.3688	no change	no
Q3UGS4	0.9288	-0.1066	0.7578	no change	no
G3X934	1.079	0.1097	0.8438	no change	no
Q3V063	1.458	0.544	0.3028	up	no
A1L2Z3	0.9673	-0.04796	0.7729	no change	no
B7XG48	0.7055	-0.5033	0.1294	down	no
Q5BKP5	0.904	-0.1456	0.7908	no change	no
Q9CZC8	0.777	-0.364	0.2142	down	no
Q9D824	1.457	0.543	0.2087	up	no
P52760	1.141	0.1903	0.3621	no change	no
A0A1L1STE6	1.576	0.6563	0.1717	up	no
E9PZP8	1.904	0.929	0.2441	up	no
A0A1W2P7X3	1.376	0.4605	0.6008	up	no
A0A494B909	0.9268	-0.1097	0.8829	no change	no
B6CI26	1.013	0.01863	0.9377	no change	no
A2AED8	0.8283	-0.2718	0.54	down	no
A0A0R4J0C2	0.837	-0.2567	0.5657	no change	no
Q6PF96	1.215	0.281	0.1235	up	no
Q8C8M9	1.834	0.875	0.2304	up	no
G5E8A8	0.7118	-0.4905	0.05158	down	no
Q9WVA4	0.5165	-0.9532	0.2465	down	no
Q80ZQ9	0.5921	-0.7561	0.4137	down	no
A0A0R4J0M9	0.9189	-0.122	0.4661	no change	no
Q9CQ70	0.8818	-0.1815	0.3343	no change	no
Q5DTM6	0.7975	-0.3264	0.5474	down	no
Q9D6H2	1.09	0.1243	0.7	no change	no
Q8BW07	0.8332	-0.2633	0.1784	no change	no
Q8R404	1.014	0.02006	0.9134	no change	no
Q91YP0	0.8528	-0.2297	0.5876	no change	no
Q8BLN5	1.518	0.6022	0.3179	up	no
A0A0H2UH22	0.2803	-1.835	0.0634	down	no
Q80VP0	0.000225	-12.12	0.3738	down	no
Q99JR1	2.284	1.192	0.1033	up	no
A0A0G2JFB2	0.8146	-0.2958	0.3179	down	no
P23953	1.186	0.2461	0.1843	no change	no
A0A0R4J0T5	0.5825	-0.7797	0.2623	down	no
Q3UDI8	1.173	0.2302	0.3583	no change	no
Q922G7	1.078	0.1084	0.8568	no change	no

B8JJM5	1.426	0.512	0.1027	up	no
Q3U6T2	1.336	0.4179	0.1792	up	no
Q9JIH2	1.058	0.08134	0.7585	no change	no
Q3TAN4	0.8869	-0.1732	0.3573	no change	no
Q99MX0	0.6388	-0.6466	0.2014	down	no
A0A0J9YUD5	1.288	0.3651	0.09715	up	no
Q91ZT8	0.4648	-1.105	0.152	down	no
A0A2I3BPL1	1.398	0.4834	0.07396	up	no
Q99MR8	0.9412	-0.08743	0.8887	no change	no
F8VQ03	0.6699	-0.578	0.1257	down	no
Q3TFQ8	1.065	0.09085	0.7306	no change	no
B9EJ80	1.121	0.1648	0.7455	no change	no
Q9D9M0	0.8093	-0.3053	0.2549	down	no
Q8CCJ3	0.8422	-0.2478	0.0695	no change	no
P61222	0.8696	-0.2016	0.3187	no change	no
Q8BW49	1.19	0.251	0.5982	no change	no
F6SRV1	1.391	0.4761	0.5358	up	no
B2RY64	0.4144	-1.271	0.1905	down	no
A0A0R4J1H6	1.118	0.1609	0.4517	no change	no
Q8CH09	0.926	-0.1109	0.7184	no change	no
A0A0A6YVS2	2.192	1.132	0.2878	up	no
P60521	0.9593	-0.05995	0.7557	no change	no
Q8R3P6	1.155	0.2079	0.2266	no change	no
P61027	1.521	0.605	0.3171	up	no
Q8BT07	0.8327	-0.2641	0.4601	no change	no
B9EHJ3	0.8678	-0.2046	0.6671	no change	no
Q9JIF7	0.9893	-0.01552	0.9416	no change	no
A0A2X0SSA9	0.9298	-0.105	0.2704	no change	no
A0A0A6YW80	0.6869	-0.5418	0.2601	down	no
A2ARZ3	0.8675	-0.2051	0.2053	no change	no
Q8C0Y0	0.3566	-1.488	0.05628	down	no
P97927	0.8976	-0.1559	0.7923	no change	no
Q3TY56	1.045	0.0635	0.7348	no change	no
Q8K409	0.7392	-0.436	0.3621	down	no
A0A1B0GT45	1.022	0.0314	0.9812	no change	no
D3YVL0	1.492	0.5772	0.3836	up	no
A0A0A6YX02	0.8546	-0.2267	0.6119	no change	no
Q6ZQH8	0.7391	-0.4362	0.08281	down	no
Q3U7E0	0.8735	-0.1951	0.4692	no change	no
Q78YY6	0.5052	-0.9851	0.347	down	no
F6RBL8	0.731	-0.4521	0.3945	down	no
O55143	0.8579	-0.2211	0.2411	no change	no
Q3U3J1	0.3807	-1.393	0.3092	down	no

Q8VDG5	1.144	0.1941	0.4401	no change	no
E9PZ16	1.296	0.3741	0.3204	up	no
Q3UWN2	1.698	0.7638	0.1369	up	no
A0A1L1STC8	0.961	-0.05739	0.8675	no change	no
A0A087WQA0	1.01	0.01436	0.9807	no change	no
Q9EP97	1.015	0.02148	0.9342	no change	no
Q8C5W3	0.8759	-0.1912	0.5954	no change	no
Q9QYE6	1.271	0.346	0.1409	up	no
P81117	0.997	-0.004335	0.9913	no change	no
Q99JX6	0.5883	-0.7654	0.1785	down	no
Q3TB15	0.4249	-1.235	0.1726	down	no
A6H6Q4	0.6743	-0.5685	0.08061	down	no
Q9D735	1.216	0.2821	0.1696	up	no
Q99PH4	1.206	0.2702	0.5577	up	no
A2AVQ9	1.486	0.5714	0.07935	up	no
A2AW41	1.164	0.2191	0.6346	no change	no
Q9CRC9	0.8652	-0.2089	0.2779	no change	no
P43247	1.158	0.2116	0.2572	no change	no
Q9CR89	0.9582	-0.0616	0.8916	no change	no
Q6P8N8	0.6618	-0.5955	0.05387	down	no
Q3V0B1	0.8427	-0.2469	0.6457	no change	no
Q8R1Q8	0.8636	-0.2116	0.3389	no change	no
G3X9G4	1.657	0.7286	0.4673	up	no
A2AC93	0.9379	-0.09249	0.4446	no change	no
E9QP46	1.368	0.4521	0.4889	up	no
E9QAJ9	0.9924	-0.01101	0.9838	no change	no
Q8K183	1.271	0.346	0.6383	up	no
Q3UM95	0.7715	-0.3743	0.5732	down	no
P70419	0.8689	-0.2027	0.4574	no change	no
P28654	0.9104	-0.1354	0.783	no change	no
A0A0G2JGH9	3.478	1.798	0.2826	up	no
Q9QZB7	1.244	0.315	0.4085	up	no
A0A0R4J0F3	0.8277	-0.2728	0.4443	down	no
K3W4Q9	1.12	0.1635	0.2964	no change	no
Q9EP72	1.043	0.06074	0.5786	no change	no
P19137	1.45	0.5361	0.06286	up	no
Q3UGE9	0.6438	-0.6353	0.2784	down	no
A0A668KL73	0.8405	-0.2507	0.418	no change	no
Q9DAA6	0.9337	-0.09897	0.5198	no change	no
Q8JZM7	1.321	0.4016	0.1626	up	no
O70551	0.9525	-0.07021	0.6796	no change	no
Q8K448	1.056	0.07861	0.9102	no change	no
Q9D9W0	0.6079	-0.7181	0.1971	down	no

Q0VAY3	0.9216	-0.1178	0.7928	no change	no
Q9CQJ2	1.352	0.4351	0.1589	up	no
A0A3Q4EH93	0.8328	-0.264	0.6825	no change	no
A0A5F8MPP5	0.8233	-0.2805	0.6208	down	no
Q3U4N2	0.8947	-0.1605	0.4806	no change	no
E9QPX3	1.151	0.2029	0.1618	no change	no
A0A494BA20	0.7655	-0.3855	0.1114	down	no
G3UWZ0	0.891	-0.1665	0.5573	no change	no
Q8BFW7	1.87	0.903	0.1475	up	no
A0A0U1RPC2	1.049	0.06901	0.8901	no change	no
Q8BWM0	0.1211	-3.046	0.3818	down	no
Q14BX2	0.4443	-1.17	0.05998	down	no
A0A494BAW8	1.449	0.5351	0.2909	up	no
B1AX95	0.8669	-0.2061	0.6977	no change	no
P70677	1.577	0.6572	0.1312	up	no
D3YXC4	0.9147	-0.1286	0.8972	no change	no
Q3U816	1.48	0.5656	0.1918	up	no
Q91V64	1.846	0.8844	0.1739	up	no
Q3TXH6	0.5423	-0.8828	0.4782	down	no
Q3TI63	1.366	0.45	0.2062	up	no
Q8VE30	0.9179	-0.1236	0.7894	no change	no
F6WMJ3	1.418	0.5039	0.1032	up	no
E9Q0W9	3.525	1.818	0.1516	up	no
A6H5Z3	1.044	0.06212	0.9265	no change	no
P42208	1.253	0.3254	0.5273	up	no
B2RQS1	0.9285	-0.107	0.7839	no change	no
A3KMP2	1.286	0.3629	0.3992	up	no
O54752	0.8192	-0.2877	0.1398	down	no
Q91WM3	0.7637	-0.3889	0.5638	down	no
Q7M753	0.8838	-0.1782	0.631	no change	no
A0A1W2P701	0.9031	-0.147	0.765	no change	no
J3QJV7	1.235	0.3045	0.0793	up	no
A0A6I8MWY5	0.7903	-0.3395	0.3081	down	no
D3YU17	0.5858	-0.7715	0.1812	down	no
O70576	0.2302	-2.119	0.3323	down	no
A0A0R4J0R7	1.19	0.251	0.165	no change	no
Q8BIW1	0.8899	-0.1683	0.6268	no change	no
Q8R1G2	1.088	0.1217	0.3646	no change	no
Q3U057	0.4803	-1.058	0.1708	down	no
Q8K1S6	1.707	0.7715	0.1616	up	no
Q8VDD5	0.9966	-0.004914	0.9935	no change	no
A0A0A0MQK8	1.176	0.2339	0.5141	no change	no
Q642I5	2.401	1.264	0.1504	up	no

A0A0R4J0V1	1.109	0.1493	0.8941	no change	no
A2ARF5	1.107	0.1467	0.7559	no change	no
D3Z1H8	0.807	-0.3094	0.319	down	no
Q9JMH6	0.834	-0.2619	0.5073	no change	no
Q8R366	2.821	1.496	0.1267	up	no
Q6ZWS7	1.119	0.1622	0.831	no change	no
Q9CQE1	1.177	0.2351	0.2236	no change	no
Q9DB41	3.135	1.648	0.07262	up	no
A0A3B2WDB3	1.361	0.4447	0.09333	up	no
A0A0A6YW06	0.2811	-1.831	0.4088	down	no
Q99KE1	1.144	0.1941	0.4455	no change	no
Q3TZX3	1.608	0.6853	0.2515	up	no
Q99NF8	0.9011	-0.1502	0.9092	no change	no
Q3TD49	0.728	-0.458	0.5905	down	no
A3KGU5	0.706	-0.5023	0.0842	down	no
P63328	1.887	0.9161	0.08411	up	no
D3Z4V1	1.261	0.3346	0.6745	up	no
A2ALF0	1.092	0.127	0.695	no change	no
A0A0D2X7Z2	1.015	0.02148	0.9447	no change	no
D3Z656	2.097	1.068	0.2097	up	no
Q3TMY8	0.6465	-0.6293	0.5276	down	no
Q5SS91	1.143	0.1928	0.7468	no change	no
Q9CYJ6	0.7595	-0.3969	0.3206	down	no
Q9D071	1.32	0.4005	0.3498	up	no
Q571F3	1.327	0.4082	0.1112	up	no
Q3TQY2	0.9534	-0.06885	0.7702	no change	no
Q8CH25	1.764	0.8189	0.2968	up	no
Q3UIA5	0.8287	-0.2711	0.1422	down	no
H3BK65	1.152	0.2041	0.5219	no change	no
B7ZWC0	1.068	0.09491	0.6988	no change	no
B2RSW8	0.8592	-0.2189	0.08531	no change	no
P49718	0.8892	-0.1694	0.09643	no change	no
Q62348	0.5007	-0.998	0.1137	down	no
Q8CCP0	1.418	0.5039	0.3896	up	no
Q8BW41	1.414	0.4998	0.4616	up	no
P05531	1.584	0.6636	0.1432	up	no
Q6NV52	1.332	0.4136	0.1125	up	no
Q3UIR2	1.15	0.2016	0.2923	no change	no
A0A338P734	0.8488	-0.2365	0.5257	no change	no
P62311	1.377	0.4615	0.3087	up	no
Q3UHJ0	0.3357	-1.575	0.06252	down	no
P58137	1.45	0.5361	0.5077	up	no
I6L970	0.8382	-0.2546	0.2648	no change	no

G3UW82	2.328	1.219	0.4479	up	no
A0A2R8VJU7	1.325	0.406	0.6651	up	no
Q9D9R3	0.388	-1.366	0.2789	down	no
A0A1B0GSK9	1.079	0.1097	0.7148	no change	no
Q3TCX4	2.089	1.063	0.4425	up	no
B1AWZ3	0.6615	-0.5962	0.1991	down	no
A2A432	1.115	0.157	0.2641	no change	no
Q3TPJ4	1.116	0.1583	0.1138	no change	no
F8VPX2	1.202	0.2654	0.1214	up	no
C0HKG5	1.136	0.184	0.3385	no change	no
Q3TGG2	1.126	0.1712	0.5648	no change	no
Q8C2T9	1.077	0.107	0.5646	no change	no
E9PXB0	1.249	0.3208	0.5696	up	no
Q6PDI5	1.032	0.04544	0.7252	no change	no
B2RUA5	1.526	0.6098	0.3192	up	no
Q9CY16	2.063	1.045	0.255	up	no
A2AKG8	0.924	-0.114	0.7122	no change	no
Q9D061	2.01	1.007	0.05674	up	no
G3X9Y5	1.156	0.2091	0.4393	no change	no
Q9QZE5	0.6254	-0.6771	0.1491	down	no
Q0EEE2	1.496	0.5811	0.4486	up	no
Q9CUU3	0.7562	-0.4032	0.3393	down	no
A2A642	0.8382	-0.2546	0.3611	no change	no
A0A0R4J0F9	1.041	0.05797	0.879	no change	no
Q3TD51	1.595	0.6736	0.1826	up	no
A0A5F8MPU3	1.28	0.3561	0.5141	up	no
Q921J2	1.019	0.02715	0.8482	no change	no
C0IQA7	1.205	0.269	0.3183	up	no
A0A0R4J0Q9	0.47	-1.089	0.1115	down	no
Q9D0R2	1.465	0.5509	0.1682	up	no
Q9DBM2	1.163	0.2179	0.5476	no change	no
A0A1L1SSL9	1.045	0.0635	0.8241	no change	no
P97770	1.284	0.3606	0.2578	up	no
A2RSJ4	0.5465	-0.8717	0.1129	down	no
A0A140LJ05	0.9479	-0.07719	0.8766	no change	no
E9PXY8	0.992	-0.01159	0.9443	no change	no
A0A2R8VHU8	1.004	0.005759	0.9802	no change	no
A2AU71	0.7473	-0.4202	0.177	down	no
G3UZK1	2.368	1.244	0.1187	up	no
Q7TSH6	0.8054	-0.3122	0.598	down	no
Q8N7N5	1.339	0.4212	0.1159	up	no
Q3U2B5	1.012	0.01721	0.9243	no change	no
B9EHZ5	1.812	0.8576	0.2587	up	no

P70699	0.5939	-0.7517	0.2743	down	no
Q8BG40	1.974	0.9811	0.1079	up	no
P53811	0.9526	-0.07006	0.8044	no change	no
Q6KAP2	0.6364	-0.652	0.4593	down	no
O70422	1.581	0.6608	0.0891	up	no
A2AS70	1.238	0.308	0.3704	up	no
Q8BJ05	0.4939	-1.018	0.08277	down	no
Q8CHH7	0.8031	-0.3163	0.07326	down	no
A0A338P6R8	0.8374	-0.256	0.5141	no change	no
A0A1W2P7J9	0.6458	-0.6308	0.162	down	no
P47968	0.6607	-0.5979	0.2955	down	no
Q3UID0	0.4638	-1.108	0.08351	down	no
E9QAU9	1.029	0.04124	0.9621	no change	no
Q64152	1.04	0.05658	0.9204	no change	no
Q3T992	1.064	0.0895	0.863	no change	no
P19324	0.6017	-0.7329	0.2699	down	no
Q67E05	0.7563	-0.403	0.3228	down	no
A0A0N4SVX8	1.242	0.3127	0.2233	up	no
A0A2I3BQG3	0.9175	-0.1242	0.693	no change	no
Q80U93	1.075	0.1043	0.815	no change	no
F8WHS8	1.21	0.275	0.7971	up	no
A0A1S6GWH4	1.304	0.3829	0.4146	up	no
Q8R0A0	0.8237	-0.2798	0.1646	down	no
P97315	1.372	0.4563	0.359	up	no
G3X8U3	0.923	-0.1156	0.7656	no change	no
A2AGL5	0.6674	-0.5834	0.1743	down	no
E9PYD1	1.389	0.474	0.6728	up	no
Q9CWN7	1.053	0.07451	0.6847	no change	no
A0A0J9YV85	0.669	-0.5799	0.2822	down	no
A2AL50	1.922	0.9426	0.1609	up	no
Q99J47	1.047	0.06626	0.6588	no change	no
A0A452J888	1.205	0.269	0.3688	up	no
Q8R2U0	1.296	0.3741	0.2009	up	no
Q6P5D8	1.227	0.2951	0.08376	up	no
A2AJ72	0.8927	-0.1638	0.7113	no change	no
K4DI59	0.8101	-0.3038	0.5582	down	no
Q8R0H9	1.112	0.1532	0.6833	no change	no
P58544	1.643	0.7163	0.215	up	no
A0A0N4SUV6	0.8844	-0.1772	0.4089	no change	no
D3Z030	0.4677	-1.096	0.2457	down	no
Q61009	1.056	0.07861	0.6477	no change	no
F2WWK5	0.5671	-0.8183	0.3051	down	no
Q8K354	0.7023	-0.5098	0.378	down	no

Q06138	1.369	0.4531	0.2659	up	no
B7ZNU9	0.8124	-0.2997	0.2531	down	no
A0A1Y7VJZ2	1.331	0.4125	0.2095	up	no
Q91W86	0.8089	-0.306	0.06434	down	no
A0A0B4J1E7	0.3604	-1.472	0.1279	down	no
A0A338P7I3	1.168	0.224	0.8127	no change	no
E9QKD1	1.016	0.0229	0.9187	no change	no
A0A0R4J119	0.8948	-0.1604	0.1596	no change	no
Q9D3U0	1.456	0.542	0.286	up	no
Q5SWT3	0.4595	-1.122	0.1312	down	no
Q5NCM9	2.717	1.442	0.06649	up	no
Q99LB6	0.7326	-0.4489	0.2272	down	no
Q3TCW3	1.113	0.1545	0.7616	no change	no
D3YW19	1.383	0.4678	0.2488	up	no
Q9D593	0.4029	-1.312	0.1123	down	no
P28665	1.264	0.338	0.3135	up	no
B9EKE5	0.6255	-0.6769	0.07556	down	no
Q05BM9	1.101	0.1388	0.6541	no change	no
P35821	1.286	0.3629	0.1099	up	no
Q8CIN4	0.9253	-0.112	0.6575	no change	no
P83887	0.9412	-0.08743	0.8925	no change	no
Q3TL79	0.9407	-0.08819	0.7882	no change	no
P61290	0.8376	-0.2557	0.5202	no change	no
Q3TBY6	2.611	1.385	0.1006	up	no
Q8BH55	1.002	0.002883	0.9941	no change	no
Q9CQX8	0.825	-0.2775	0.4499	down	no
A0A087WNM1	0.7609	-0.3942	0.6597	down	no
Q8BI72	1.102	0.1401	0.2344	no change	no
Q3TQ21	1.208	0.2726	0.5779	up	no
Q80UJ8	1.462	0.5479	0.2125	up	no
Q8K0T4	0.9946	-0.007812	0.9743	no change	no
A0A286YCV9	1.148	0.1991	0.6531	no change	no
P27046	1.103	0.1414	0.739	no change	no
E9PWC8	0.9095	-0.1369	0.8401	no change	no
F6SQH7	0.2716	-1.88	0.09749	down	no
B2RRE8	1.404	0.4895	0.1007	up	no
O54774	0.9715	-0.04171	0.7578	no change	no
Q3UYC8	0.6469	-0.6284	0.4604	down	no
I6L974	1.008	0.0115	0.9744	no change	no
Q8C0N1	2.198	1.136	0.09633	up	no
A8DIL0	0.8412	-0.2495	0.1425	no change	no
A0A1D5RL92	1.136	0.184	0.4603	no change	no
Q9Z2I8	1.389	0.474	0.4549	up	no

P54071	1.289	0.3663	0.6093	up	no
P56546	1.449	0.5351	0.349	up	no
A7MCT8	1.523	0.6069	0.5069	up	no
D3Z132	0.9043	-0.1451	0.644	no change	no
Q6PHQ8	0.8473	-0.2391	0.3578	no change	no
D3YX99	0.9066	-0.1415	0.4363	no change	no
Q99MV7	1.191	0.2522	0.4268	no change	no
O35450	0.6873	-0.541	0.5599	down	no
Q05D44	1.178	0.2363	0.52	no change	no
Q9Z1X2	0.7904	-0.3393	0.1861	down	no
Q7TT23	0.4746	-1.075	0.1347	down	no
A0ZV96	0.5404	-0.8879	0.4682	down	no
Q9Z315	0.9734	-0.0389	0.9118	no change	no
D3Z7P0	0.9708	-0.04275	0.8801	no change	no
A0A0R4J098	0.7995	-0.3228	0.5	down	no
P27641	1.11	0.1506	0.346	no change	no
Q8C8R3	0.566	-0.8211	0.3828	down	no
Q3TRJ6	0.5667	-0.8193	0.1813	down	no
E9QPI5	0.6691	-0.5797	0.3316	down	no
Q61239	0.7858	-0.3478	0.1553	down	no
Q8BTJ0	1.116	0.1583	0.4845	no change	no
B9EKJ9	1.213	0.2786	0.4531	up	no
A0A0A6YWP6	1.469	0.5548	0.2602	up	no
A0A5F8MPS7	0.4099	-1.287	0.3851	down	no
A0A0G2JGF7	1.346	0.4287	0.2292	up	no
A0A0R4J150	1.187	0.2473	0.3541	no change	no
Q3UQD0	0.9161	-0.1264	0.7884	no change	no
Q8BHW6	1.12	0.1635	0.8311	no change	no
Q8VE11	1.519	0.6031	0.2946	up	no
Q8C0M8	0.6309	-0.6645	0.3247	down	no
O88851	0.6594	-0.6008	0.5961	down	no
Q9D1P4	0.8708	-0.1996	0.4392	no change	no
Q7TPW6	1.774	0.827	0.1422	up	no
Q8VBZ3	1.369	0.4531	0.6614	up	no
A0A0A6YW87	1.36	0.4436	0.4367	up	no
Q8CCF0	0.8576	-0.2216	0.3314	no change	no
P13439	1.259	0.3323	0.08005	up	no
P61965	0.8324	-0.2647	0.3835	no change	no
D3Z7Q2	1.684	0.7519	0.3032	up	no
B7ZC19	0.9008	-0.1507	0.8539	no change	no
A0A5F8MPX8	1.234	0.3033	0.3527	up	no
O35864	1.767	0.8213	0.1019	up	no
Q9DBN5	0.9063	-0.1419	0.7328	no change	no

F8WJI3	1.182	0.2412	0.2626	no change	no
Q8VD76	0.5516	-0.8583	0.06156	down	no
A2ADR8	1.447	0.5331	0.06742	up	no
A0A0R4J1F8	0.8989	-0.1538	0.8096	no change	no
D3Z6W2	0.99	-0.0145	0.9442	no change	no
B1AU25	1.211	0.2762	0.5078	up	no
A0A0R4J048	1.933	0.9508	0.08416	up	no
A0A6I8MWZ8	0.5775	-0.7921	0.1358	down	no
A0A3F2YNL8	0.9324	-0.101	0.7179	no change	no
A0A0R4J039	0.4665	-1.1	0.1025	down	no
Q9DAM1	0.866	-0.2076	0.4844	no change	no
Q8BTJ4	0.712	-0.4901	0.3713	down	no
Q0P5Y3	0.8037	-0.3153	0.4306	down	no
A0A0J9YV82	1.449	0.5351	0.1577	up	no
A0A0G2JFW6	1.514	0.5984	0.7386	up	no
Q8C0D5	0.911	-0.1345	0.601	no change	no
A0A0R4J0E4	1.418	0.5039	0.6115	up	no
P24668	0.6336	-0.6584	0.2883	down	no
A0A0G2JGQ4	1.188	0.2485	0.582	no change	no
Q8C0S4	1.52	0.6041	0.2741	up	no
O70423	0.9991	-0.001299	0.9975	no change	no
E9Q4P1	0.7202	-0.4735	0.5006	down	no
Q8CDR2	0.8602	-0.2173	0.1018	no change	no
Q99L27	1.118	0.1609	0.7469	no change	no
A0A7N9VS49	1.144	0.1941	0.4158	no change	no
A3KGR9	1.205	0.269	0.791	up	no
E9QAT4	0.8368	-0.257	0.7438	no change	no
Q922B1	0.569	-0.8135	0.07696	down	no
Q6P5B0	0.9817	-0.02665	0.9733	no change	no
O08715	1.387	0.472	0.6738	up	no
E9PXG9	1.095	0.1309	0.8626	no change	no
A0A3Q4EHN7	0.8207	-0.2851	0.7391	down	no
Q3V0Q7	0.631	-0.6643	0.07498	down	no
A0A1W2P7Q6	0.8743	-0.1938	0.6095	no change	no
A0A0A6YXK7	1.003	0.004322	0.9902	no change	no
Q3UBB0	0.7139	-0.4862	0.3116	down	no
Q562E2	1.176	0.2339	0.3783	no change	no
Q66JW2	1.002	0.002883	0.9962	no change	no
Q8BYU6	0.834	-0.2619	0.3296	no change	no
Q501J7	0.4522	-1.145	0.05261	down	no
B2RWR8	1.035	0.04963	0.7931	no change	no
P57746	1.067	0.09356	0.8484	no change	no
Q3TMQ8	1.543	0.6257	0.1682	up	no

Q8R3F7	0.6904	-0.5345	0.266	down	no
Q3UUJ4	0.7845	-0.3502	0.3309	down	no
A0A140LIU9	1.108	0.148	0.8013	no change	no
Q9WV27	0.7289	-0.4562	0.1124	down	no
Q3TET5	1.412	0.4977	0.2167	up	no
Q99LI9	1.84	0.8797	0.0762	up	no
D3Z0P6	1.191	0.2522	0.2707	no change	no
D3Z710	1.377	0.4615	0.2633	up	no
Q8R3C0	0.7765	-0.3649	0.425	down	no
Q5ND04	2.246	1.167	0.2671	up	no
Q7TSD4	0.7111	-0.4919	0.2377	down	no
Q9D4H1	0.3412	-1.551	0.1877	down	no
Q8CIM8	0.807	-0.3094	0.5683	down	no
H7BX01	1.257	0.33	0.682	up	no
A0A0R4IZW7	0.5542	-0.8515	0.2526	down	no
Q91VJ2	1.29	0.3674	0.7889	up	no
Q9CZV9	1.265	0.3391	0.3557	up	no
Q99M51	0.8895	-0.1689	0.6338	no change	no
Q3TDN8	1.207	0.2714	0.4346	up	no
A0A0G2JF96	0.4981	-1.005	0.2687	down	no
B9EJ15	0.6776	-0.5615	0.05629	down	no
Q3U1Z8	0.7049	-0.5045	0.6339	down	no
Q9D2H5	0.7725	-0.3724	0.7615	down	no
A2A7S7	1.019	0.02715	0.8974	no change	no
F7DE82	1.554	0.636	0.1205	up	no
Q3V3R1	0.9435	-0.08391	0.3916	no change	no
Q8BX70	1.123	0.1674	0.7975	no change	no
F7B209	1.229	0.2975	0.6209	up	no
Q922Z5	0.9593	-0.05995	0.9348	no change	no
Q8BRF7	1.037	0.05242	0.7825	no change	no
E9Q8T7	0.9109	-0.1346	0.6451	no change	no
Q9Z2I0	0.9934	-0.009553	0.9681	no change	no
Q3TCJ1	0.6472	-0.6277	0.09765	down	no
Q6ZPJ3	0.8565	-0.2235	0.8815	no change	no
G3XA12	1.273	0.3482	0.6984	up	no
Q3UGR1	1.423	0.5089	0.5649	up	no
P58404	1.115	0.157	0.7545	no change	no
Q9DBX3	1.298	0.3763	0.3786	up	no
A0A0A0MQN1	1.143	0.1928	0.2296	no change	no
Q3TJN6	1.08	0.111	0.7699	no change	no
Q9D0S9	0.9202	-0.12	0.7249	no change	no
Q8CDZ5	1.232	0.301	0.7543	up	no
P49135	1.12	0.1635	0.7432	no change	no

A0A0A6YWM5	1.37	0.4542	0.2271	up	no
Q3UGE1	1.126	0.1712	0.8757	no change	no
A0A0J9YVJ6	1.412	0.4977	0.3403	up	no
D3Z3T5	0.5733	-0.8026	0.121	down	no
B7ZNJ3	0.4437	-1.172	0.4591	down	no
Q8VD62	0.7922	-0.3361	0.6877	down	no
P49282	1.067	0.09356	0.8084	no change	no
P70451	1.755	0.8115	0.4666	up	no
D3YUV1	0.7033	-0.5078	0.1159	down	no
A0A140LHL8	0.7354	-0.4434	0.135	down	no
A0A0A0MQH6	0.6989	-0.5168	0.138	down	no
B7ZP20	1.303	0.3818	0.2543	up	no
A0A1Y7VLZ7	0.4371	-1.194	0.1475	down	no
B7ZMW4	0.8585	-0.2201	0.5071	no change	no
B9EKI8	5.856	2.55	0.3843	up	no
D3Z1Y6	1.074	0.103	0.3802	no change	no
Q9Z1Q2	0.9822	-0.02591	0.9071	no change	no
Q8JZP9	1.266	0.3403	0.3254	up	no
Q9D3V1	0.6851	-0.5456	0.5557	down	no
A2AI52	0.9865	-0.01961	0.9521	no change	no
D3YUE6	1.303	0.3818	0.2545	up	no
D3YWJ9	1.121	0.1648	0.786	no change	no
Q80VD1	0.5584	-0.8406	0.1283	down	no
A0A0A6YXH3	1.016	0.0229	0.9215	no change	no
D3YVA9	0.7846	-0.35	0.1114	down	no
Q8C3X8	1.078	0.1084	0.7228	no change	no
A0A494BA44	1.238	0.308	0.6301	up	no
Q5RL55	1.007	0.01006	0.986	no change	no
Q3TMX7	1.073	0.1017	0.8555	no change	no
Q8CG72	0.7104	-0.4933	0.6542	down	no
Q9DBD5	0.9947	-0.007667	0.9698	no change	no
E9Q3Y4	0.931	-0.1031	0.6956	no change	no
P70206	89.96	6.491	0.1254	up	no
Q3TFE2	1.073	0.1017	0.8308	no change	no
Q9DB05	1.001	0.001442	0.9976	no change	no
Q8C7E9	1.418	0.5039	0.1806	up	no
E9Q6K1	0.7965	-0.3283	0.5195	down	no
A0A7D9N0L4	1.655	0.7268	0.4269	up	no
A0A087WP24	0.7418	-0.4309	0.06188	down	no
Q9D9D3	0.6576	-0.6047	0.09318	down	no
A0A1B0GRN6	0.9155	-0.1274	0.8195	no change	no
E9Q2E4	0.6384	-0.6475	0.6571	down	no
B7XG49	0.7054	-0.5035	0.1575	down	no

Q8VCS3	0.9603	-0.05844	0.9449	no change	no
E9PYF1	0.8477	-0.2384	0.8966	no change	no
P50427	1.148	0.1991	0.5947	no change	no
Q4FJZ3	0.1298	-2.946	0.3826	down	no
Q8BGF3	0.9218	-0.1175	0.7315	no change	no
D6REF7	0.9302	-0.1044	0.4662	no change	no
Q9DA11	0.8968	-0.1571	0.7333	no change	no
Q9CQA9	1.483	0.5685	0.2148	up	no
A0A087WRG0	1.397	0.4823	0.4027	up	no
Q9CYW4	2.015	1.011	0.06961	up	no
Q9DBR1	0.7078	-0.4986	0.3323	down	no
A0A0R4J1Y3	0.6291	-0.6686	0.1706	down	no
Q8BYA0	6.221	2.637	0.199	up	no
D3YZ20	0.9765	-0.03431	0.9051	no change	no
A2A9H6	0.7973	-0.3268	0.06655	down	no
A0A0A6YWX1	1.173	0.2302	0.08715	no change	no
Q8BH66	1.933	0.9508	0.06824	up	no
Q9Z2L6	0.951	-0.07248	0.6828	no change	no
Q8R0F8	0.8452	-0.2426	0.2242	no change	no
F6XU64	1.109	0.1493	0.2025	no change	no
Q9D485	0.8601	-0.2174	0.5109	no change	no
F6YRQ2	0.7386	-0.4371	0.2856	down	no
E9PWZ8	1.566	0.6471	0.4907	up	no
A0A338P6L5	0.648	-0.6259	0.5225	down	no
Q4QRK2	0.8234	-0.2803	0.2534	down	no
Q9D2C2	1.02	0.02857	0.9182	no change	no
Q8K2A8	0.6921	-0.5309	0.3865	down	no
F6SX81	2.359	1.238	0.3629	up	no
D3Z3T4	0.3749	-1.415	0.2641	down	no
E9QL65	0.4397	-1.185	0.3939	down	no
Q3UJX2	1.255	0.3277	0.2504	up	no
E9Q9D5	1.271	0.346	0.4537	up	no
Q3TMB3	1.106	0.1454	0.6056	no change	no
Q3TPN6	1.024	0.03422	0.9301	no change	no
Q8CBQ5	1.158	0.2116	0.5056	no change	no
G3UXA6	0.6719	-0.5737	0.334	down	no
A3KG93	0.8594	-0.2186	0.6685	no change	no
Q3V030	0.6562	-0.6078	0.3114	down	no
A0A0U1RNF2	0.7805	-0.3575	0.1936	down	no
A0A0G2JG69	0.8819	-0.1813	0.6095	no change	no
A0A338P6W1	1.265	0.3391	0.4439	up	no
P46061	1.135	0.1827	0.6839	no change	no
D6RFU9	1.063	0.08814	0.7286	no change	no

A0A0R4J233	1.094	0.1296	0.7136	no change	no
E9PZD8	1.201	0.2642	0.07017	up	no
Q9D832	0.6874	-0.5408	0.0754	down	no
Q3TZJ2	0.8793	-0.1856	0.7189	no change	no
Q80W54	0.5519	-0.8575	0.1904	down	no
Q8BFQ4	0.7647	-0.387	0.5247	down	no
Q0VBL3	0.9474	-0.07795	0.7442	no change	no
A0A0A0MQN4	0.8986	-0.1542	0.4116	no change	no
Q8K450	1.544	0.6267	0.07228	up	no
Q8VE80	1.186	0.2461	0.541	no change	no
Q8CFE2	0.77	-0.3771	0.4329	down	no
B0V2P5	0.7499	-0.4152	0.6119	down	no
Q9QXB9	0.6421	-0.6391	0.2322	down	no
O89020	1.195	0.257	0.5643	no change	no
B9EJU1	1.202	0.2654	0.4892	up	no
Q7TPV4	0.615	-0.7013	0.3073	down	no
A0A494BAW4	3.253	1.702	0.3715	up	no
Q9D9V3	1.402	0.4875	0.05576	up	no
A0PJK9	1.236	0.3057	0.7181	up	no
A0A0R4J0T8	0.6365	-0.6518	0.1162	down	no
H7BX22	0.9933	-0.009699	0.9878	no change	no
P55772	1.109	0.1493	0.4691	no change	no
Q5SW15	1.394	0.4792	0.2588	up	no
A0A1W2P729	0.9325	-0.1008	0.7049	no change	no
Q05CS7	0.5469	-0.8707	0.1476	down	no
Q920D3	1.513	0.5974	0.08821	up	no
Q3TSG4	1.164	0.2191	0.3799	no change	no
Q3U6Y0	1.722	0.7841	0.1183	up	no
Q8BTW3	1.315	0.3951	0.3686	up	no
P20918	2.714	1.44	0.3522	up	no
A0A1L1SV25	0.7413	-0.4319	0.1683	down	no
Q80XK6	1.229	0.2975	0.6075	up	no
A0A087WPV9	1.047	0.06626	0.7995	no change	no
Q9CPX7	1.228	0.2963	0.7708	up	no
Q9DBE8	1.394	0.4792	0.3039	up	no
Q3UJV1	1.041	0.05797	0.892	no change	no
A6X919	1.014	0.02006	0.9811	no change	no
O88668	0.7808	-0.357	0.08546	down	no
E9QNW6	1.247	0.3185	0.7489	up	no
Q6DVA0	0.9101	-0.1359	0.5368	no change	no
Q9CQ84	0.576	-0.7959	0.07631	down	no
Q9EPK2	0.7637	-0.3889	0.1059	down	no
A4Q9F3	1.112	0.1532	0.7829	no change	no

Q6A009	1.064	0.0895	0.9226	no change	no
A0A0R4J124	0.7581	-0.3995	0.5169	down	no
P32921	1.037	0.05242	0.9446	no change	no
A6H639	1.474	0.5597	0.3175	up	no
A0A0R4J0B1	1.731	0.7916	0.3541	up	no
Q8K411	1.13	0.1763	0.8013	no change	no
A0A0G2JH17	1.843	0.8821	0.2583	up	no
Q3TYS2	0.7033	-0.5078	0.352	down	no
Q3U8B3	0.9191	-0.1217	0.6228	no change	no
A2ALV3	1.034	0.04824	0.9596	no change	no
Q99M31	0.7085	-0.4972	0.1734	down	no
Q14BI7	1.429	0.515	0.229	up	no
A0A2R8VJW7	1.154	0.2066	0.4159	no change	no
Q9Z2D6	0.2967	-1.753	0.411	down	no
Q3UXU8	0.6359	-0.6531	0.3967	down	no
A0A2I3BPY7	0.4553	-1.135	0.1449	down	no
A0A0U1RP13	1.171	0.2277	0.5929	no change	no
E9Q9W4	2.33	1.22	0.07488	up	no
Q3THA0	0.9499	-0.07415	0.8407	no change	no
D3Z041	1	0	0.9995	no change	no
A0A1Y7VNZ6	0.7267	-0.4606	0.1379	down	no
Q6PB44	1.124	0.1686	0.5682	no change	no
A2ALU4	0.781	-0.3566	0.4337	down	no
Q8K412	0.7897	-0.3406	0.4738	down	no
A0A0R4J0M1	2.742	1.455	0.2122	up	no
Q8R3L0	1.016	0.0229	0.7969	no change	no
O09174	0.9238	-0.1143	0.7848	no change	no
A0A0U1RNT4	0.3817	-1.389	0.05258	down	no
Q91YP3	0.8432	-0.2461	0.1824	no change	no
Q6ZQM8	1.244	0.315	0.5526	up	no
B2RQ80	0.4601	-1.12	0.355	down	no
Q3U606	0.9193	-0.1214	0.8897	no change	no
Q3ULS2	0.9639	-0.05304	0.8352	no change	no
B2RQQ5	1.224	0.2916	0.6286	up	no
Q9D968	1.249	0.3208	0.3902	up	no
B2M0R9	0.9617	-0.05634	0.7102	no change	no
Q8R010	0.9133	-0.1308	0.7623	no change	no
A0A0A6YX73	1.054	0.07587	0.5787	no change	no
Q3UY32	0.6941	-0.5268	0.06057	down	no
Q3TZU7	0.8974	-0.1562	0.6283	no change	no
A0A286YCY6	0.7069	-0.5004	0.1418	down	no
Q9WVM1	0.6477	-0.6266	0.1305	down	no
F6ZFT1	0.6657	-0.5871	0.08364	down	no

F6SFF5	1.265	0.3391	0.5546	up	no
Q9CWF6	2.049	1.035	0.1934	up	no
A0A140LIA8	0.6278	-0.6716	0.4324	down	no
Q5EE38	1.445	0.5311	0.2267	up	no
A0A0U1RPL0	2.007	1.005	0.3419	up	no
E9PUE1	1.283	0.3595	0.5746	up	no
P31254	2.708	1.437	0.2474	up	no
Q8BZ14	0.5044	-0.9874	0.1601	down	no
A0A087WSD2	0.6124	-0.7075	0.4001	down	no
Q6J756	0.6492	-0.6233	0.3686	down	no
A0A1B0GRU8	0.6214	-0.6864	0.1671	down	no
Q9ER72	0.669	-0.5799	0.1661	down	no
BiognosysRT-Kit_WR_fusion	0.6165	-0.6978	0.101	down	no
D3Z2J6	0.9254	-0.1119	0.7042	no change	no
Q69Z43	0.5654	-0.8227	0.2867	down	no
Q8CBH7	0.7357	-0.4428	0.5261	down	no
B9EKJ7	1.062	0.08678	0.6601	no change	no
H7BX99	1.115	0.157	0.8718	no change	no
Q3UJY9	0.6651	-0.5884	0.5817	down	no
A2AEG3	1.118	0.1609	0.6671	no change	no
Q60823	0.5338	-0.9056	0.2179	down	no
Q3UDK1	0.799	-0.3237	0.4261	down	no
Q5SUF2	0.8969	-0.157	0.7533	no change	no
Q91WK1	1.868	0.9015	0.1444	up	no
Q8CFI7	0.9317	-0.1021	0.5891	no change	no
A0A0R4J195	0.7411	-0.4323	0.4051	down	no
Q91YJ5	0.636	-0.6529	0.2252	down	no
P07742	1.315	0.3951	0.1299	up	no
B2RXP7	0.8411	-0.2497	0.5058	no change	no
Q91XD6	0.7145	-0.485	0.2018	down	no
A0A494BB75	0.7844	-0.3503	0.554	down	no
A6H690	0.6314	-0.6634	0.229	down	no
A2AUC6	0.9234	-0.115	0.7314	no change	no
Q3U4P6	1.094	0.1296	0.5268	no change	no
E9Q6W2	1.184	0.2437	0.6065	no change	no
B1ATP7	1.408	0.4936	0.1496	up	no
Q3UT19	0.5574	-0.8432	0.3678	down	no
E9PUB2	0.7398	-0.4348	0.3332	down	no
E9Q2X6	0.7097	-0.4947	0.3972	down	no
A2ANY6	1.216	0.2821	0.2038	up	no
A0A0A0MQ76	1.424	0.5099	0.3102	up	no
B9EJ16	0.9209	-0.1189	0.8116	no change	no
H7BWY6	1.483	0.5685	0.2628	up	no

Q3TPD9	0.8145	-0.296	0.3356	down	no
E9PV12	2.839	1.505	0.2973	up	no
G3X9B5	0.9633	-0.05394	0.7715	no change	no
A0JLQ7	1.146	0.1966	0.7128	no change	no
A0A3Q4EBT8	1.755	0.8115	0.2713	up	no
Q3U643	0.835	-0.2602	0.5075	no change	no
Q3UZJ4	1.717	0.7799	0.5391	up	no
B1AZI6	0.9873	-0.01844	0.9688	no change	no
A0A1W6AWH1	0.907	-0.1408	0.5408	no change	no
P30415	0.8807	-0.1833	0.2384	no change	no
Q8BH73	1.175	0.2327	0.786	no change	no
Q149T7	1.296	0.3741	0.4144	up	no
A0A165ELP6	1.147	0.1979	0.5542	no change	no
B1AQF4	0.9529	-0.0696	0.9011	no change	no
E9Q743	0.8363	-0.2579	0.3976	no change	no
Q8K4I7	1.43	0.516	0.06446	up	no
A0A286YDU0	0.9182	-0.1231	0.5721	no change	no
Q9WTI7	0.4223	-1.244	0.1438	down	no
E9Q6D8	0.2132	-2.23	0.2827	down	no
Q62418	0.998	-0.002888	0.992	no change	no
Q3TUQ7	0.8087	-0.3063	0.469	down	no
Q9CXJ4	1.064	0.0895	0.874	no change	no
P05480	0.9416	-0.08681	0.7413	no change	no
A2AH98	1.105	0.144	0.7987	no change	no
P21447	2.291	1.196	0.1643	up	no
Q3UG63	0.7595	-0.3969	0.1099	down	no
E9Q2P5	0.9517	-0.07142	0.8264	no change	no
Q3UK41	1.917	0.9389	0.1174	up	no
B8JJC1	1.065	0.09085	0.9097	no change	no
Q3TW27	0.6703	-0.5771	0.1959	down	no
Q6PGF7	0.897	-0.1568	0.4709	no change	no
A0A087WQD8	0.4852	-1.043	0.0583	down	no
Q8VDC1	0.3644	-1.456	0.2999	down	no
A1L3C2	1.479	0.5646	0.1945	up	no
Q80ZQ7	2.263	1.178	0.4151	up	no
Q8R0F6	1.216	0.2821	0.339	up	no
A0A338P785	1.139	0.1878	0.6523	no change	no
P35235	1.893	0.9207	0.0936	up	no
B2RY30	1.9	0.926	0.3446	up	no
Q571M5	1.111	0.1519	0.7727	no change	no
Q9D0K1	1.372	0.4563	0.6393	up	no
Q9JK81	0.9276	-0.1084	0.8421	no change	no
Q3USH5	0.7967	-0.3279	0.4242	down	no

A0A338P6S3	1.37	0.4542	0.6032	up	no
P21614	0.6654	-0.5877	0.06226	down	no
A2A4X9	0.4795	-1.06	0.08606	down	no
D3YWL7	4.05	2.018	0.07124	up	no
A2ATR8	0.6567	-0.6067	0.4212	down	no
Q3TMV8	1.62	0.696	0.08046	up	no
Q76HL1	0.815	-0.2951	0.2728	down	no
Q3TPC5	1.131	0.1776	0.6986	no change	no
B1AT01	1.57	0.6508	0.2288	up	no
Q8BJW5	1.953	0.9657	0.5135	up	no
Q3UNZ8	1.618	0.6942	0.1096	up	no
Q9Z0E1	0.6403	-0.6432	0.264	down	no
A0A2X0SYS9	1.165	0.2203	0.5969	no change	no
P86049	2.159	1.11	0.4237	up	no
D4AFX7	0.9138	-0.13	0.6004	no change	no
Q3UHU8	1.372	0.4563	0.06745	up	no
Q78IK4	0.7354	-0.4434	0.2548	down	no
A0A1Y7VN36	1.941	0.9568	0.0821	up	no
O55229	0.7668	-0.3831	0.5642	down	no
Q3TZT4	1.162	0.2166	0.7751	no change	no
Q00493	2.462	1.3	0.27	up	no
P61963	0.9971	-0.00419	0.9958	no change	no
Q14DK4	3.176	1.667	0.4676	up	no
A0A1L1SQG7	0.978	-0.03209	0.9082	no change	no
P47809	0.7353	-0.4436	0.08632	down	no
B1B1A8	1.186	0.2461	0.1106	no change	no
P47713	0.5769	-0.7936	0.2777	down	no
B7ZCU0	0.7436	-0.4274	0.3333	down	no
Q8K3G5	0.8592	-0.2189	0.6599	no change	no
Q78JE5	1.576	0.6563	0.3772	up	no
A0A0R4J058	0.8053	-0.3124	0.1678	down	no
Q5VCS6	1.265	0.3391	0.3488	up	no
A0A0R4J0G0	3.972	1.99	0.1237	up	no
B2RXR2	2.096	1.068	0.08721	up	no
A0A0A6YWP2	0.7662	-0.3842	0.1447	down	no
O54692	0.5386	-0.8927	0.0834	down	no
Q3U186	0.4461	-1.165	0.3386	down	no
O88630	1.235	0.3045	0.2552	up	no
D3Z0T0	0.219	-2.191	0.326	down	no
O55222	0.6997	-0.5152	0.3155	down	no
O70481	1.408	0.4936	0.2687	up	no
Q91VE0	0.9272	-0.109	0.633	no change	no
Q9DBG7	1.245	0.3161	0.2401	up	no

A0A1L1SRY8	1.239	0.3092	0.5877	up	no
Q5SYL3	1.076	0.1057	0.6503	no change	no
E9PYU8	1.196	0.2582	0.4801	no change	no
F6V3Y9	1.179	0.2376	0.5094	no change	no
Q8K135	2.593	1.375	0.3365	up	no
Q3TJP6	0.7792	-0.3599	0.3804	down	no
Q8BMD8	1.233	0.3022	0.5996	up	no
B1AR74	1.333	0.4147	0.3259	up	no
B1AXP3	0.9495	-0.07476	0.9248	no change	no
A2AG36	1.349	0.4319	0.3105	up	no
Q99J95	1.568	0.6489	0.1268	up	no
B7ZCL7	1.511	0.5955	0.4244	up	no
Q9JIB0	0.3461	-1.531	0.07027	down	no
A0A2R8W6Q5	0.9541	-0.06779	0.8829	no change	no
Q9D529	0.7237	-0.4665	0.1796	down	no
A0A0A6YW57	1.469	0.5548	0.2864	up	no
Q8CHQ0	0.8571	-0.2225	0.8062	no change	no
Q9DBR7	1.499	0.584	0.1113	up	no
O08738	1.898	0.9245	0.1154	up	no
A6H5Y3	1.197	0.2594	0.4816	no change	no
Q9CQ85	2.046	1.033	0.05785	up	no
A0A0R4J1E8	0.3381	-1.564	0.1663	down	no
Q8BGP6	1.002	0.002883	0.9951	no change	no
G5E8R8	0.6361	-0.6527	0.4704	down	no
A0A140LI36	1.301	0.3796	0.517	up	no
A0A1B0GQY9	0.8012	-0.3198	0.3669	down	no
Q8BS45	0.8984	-0.1546	0.8021	no change	no
O35074	0.5756	-0.7969	0.2045	down	no
E9QLB2	1.106	0.1454	0.5844	no change	no
Q8K2Q0	0.6035	-0.7286	0.3049	down	no
A0A0N4SW77	1.38	0.4647	0.1852	up	no
A0A0R4J1T1	1.772	0.8254	0.1518	up	no
P70268	0.6145	-0.7025	0.458	down	no
A6H6E1	1.157	0.2104	0.6537	no change	no
F6S1I0	1.246	0.3173	0.4278	up	no
O88736	1.061	0.08542	0.8969	no change	no
E9PUF7	0.7063	-0.5016	0.5891	down	no
Q32M04	0.7209	-0.4721	0.1226	down	no
Q3U0P5	0.9544	-0.06733	0.8678	no change	no
Q8CAA7	0.6952	-0.5245	0.09882	down	no
Q3UG43	0.4234	-1.24	0.1085	down	no
A0A571BE63	0.9381	-0.09219	0.7464	no change	no
Q8VE91	0.8733	-0.1955	0.5805	no change	no

Q6P6J0	1.057	0.07998	0.8287	no change	no
Q8BYY4	0.9336	-0.09912	0.7864	no change	no
Q8BLY2	1.107	0.1467	0.8905	no change	no
Q8CC88	0.5057	-0.9836	0.2747	down	no
F6SQM4	2.461	1.299	0.11	up	no
Q3TCH7	0.6045	-0.7262	0.2642	down	no
Q8BTW1	0.7942	-0.3324	0.4258	down	no
Q9CXT7	0.9721	-0.04082	0.8786	no change	no
Q9DAJ5	1.041	0.05797	0.9285	no change	no
A0A1S6GWJ6	1.018	0.02574	0.9324	no change	no
A0JLN1	1.776	0.8286	0.1664	up	no
A0A668KLC6	1.421	0.5069	0.1579	up	no
Q6PAV2	0.7517	-0.4118	0.6813	down	no
A2RRJ4	1.066	0.09221	0.7365	no change	no
A0A2R8VHT1	1.006	0.00863	0.9816	no change	no
F6XC25	1.017	0.02432	0.9349	no change	no
Q04735	0.7597	-0.3965	0.4756	down	no
Q8K396	0.5328	-0.9083	0.4904	down	no
B2RXC1	0.7532	-0.4089	0.4534	down	no
Q3TN29	0.2709	-1.884	0.3307	down	no
Q9EQH2	1.155	0.2079	0.4333	no change	no
Q8BFP9	0.7191	-0.4757	0.3791	down	no
Q3UIH7	1.138	0.1865	0.7972	no change	no
Q8BND5	1.096	0.1322	0.7487	no change	no
O35382	1.125	0.1699	0.7918	no change	no
Q99J38	0.7014	-0.5117	0.5905	down	no
A4FUU3	1.137	0.1852	0.6545	no change	no
A0A087WSN7	0.8944	-0.161	0.6439	no change	no
A0JP43	1.383	0.4678	0.6005	up	no
A2ARZ7	0.7564	-0.4028	0.5529	down	no
Q8BML1	0.8948	-0.1604	0.8801	no change	no
P98191	11.6	3.536	0.364	up	no
O55082	0.4873	-1.037	0.2856	down	no
E9PWG6	0.4998	-1.001	0.48	down	no
Q8C7S2	1.373	0.4573	0.6741	up	no
A0A0R4J0L7	0.7377	-0.4389	0.4976	down	no
O35943	1.216	0.2821	0.5085	up	no
G3X8X7	0.6446	-0.6335	0.3034	down	no
A2AR02	1.63	0.7049	0.3276	up	no
Q0VGR5	0.9775	-0.03283	0.863	no change	no
Q3U417	0.3041	-1.717	0.1289	down	no
Q3U480	0.6098	-0.7136	0.4209	down	no
A2RSG8	1.521	0.605	0.2157	up	no

A0A494B9Q5	0.7978	-0.3259	0.5807	down	no
B1AUX2	1.222	0.2892	0.3124	up	no
Q9D454	1.42	0.5059	0.05306	up	no
A0A2K6EDJ7	1.405	0.4906	0.2691	up	no
Q9DCC4	4.943	2.305	0.2709	up	no
E9QK48	1.143	0.1928	0.7015	no change	no
A0A571BEE2	1.712	0.7757	0.2341	up	no
D3Z2H2	1.11	0.1506	0.7174	no change	no
Q9QY84	1.186	0.2461	0.7861	no change	no
E9Q3H7	0.6545	-0.6115	0.05208	down	no
Q3TAL5	1.016	0.0229	0.9326	no change	no
P51949	1.654	0.726	0.1389	up	no
J3QNW0	0.9464	-0.07948	0.8714	no change	no
F6R3V4	1.125	0.1699	0.687	no change	no
A0A1B0GR41	0.7622	-0.3918	0.5318	down	no
D3YYT0	1.34	0.4222	0.359	up	no
A0A1S6GWH6	0.2027	-2.303	0.3376	down	no
A0A087WQT6	2.369	1.244	0.05414	up	no
P22907	0.7319	-0.4503	0.3774	down	no
Q8BWF0	2	1	0.4965	up	no
Q8VHI7	0.6328	-0.6602	0.06099	down	no
Q80Y98	1.704	0.7689	0.1674	up	no
Q9JI90	0.8347	-0.2607	0.6332	no change	no
Q8C804	1.793	0.8424	0.2868	up	no
F2Z3X6	1.507	0.5917	0.2737	up	no
Q3UJU9	1.253	0.3254	0.283	up	no
P33611	0.6901	-0.5351	0.2565	down	no
Q3TK27	0.6767	-0.5634	0.1027	down	no
O08529	0.8012	-0.3198	0.5081	down	no
F7ACR9	1.121	0.1648	0.6916	no change	no
Q4TVN0	0.8509	-0.2329	0.3364	no change	no
D3Z079	0.9461	-0.07994	0.8639	no change	no
E9Q3G8	1.046	0.06488	0.9411	no change	no
Q6PE54	0.7188	-0.4763	0.5028	down	no
Q99KQ9	0.9244	-0.1134	0.7529	no change	no
E9QL80	1.023	0.03281	0.933	no change	no
A0A286YDB3	0.6271	-0.6732	0.06646	down	no
F8WHM5	1.063	0.08814	0.9009	no change	no
Q9D9I1	0.8344	-0.2612	0.5939	no change	no
A0A0R4J205	1.175	0.2327	0.7782	no change	no
Q8K3W3	0.6764	-0.5641	0.6255	down	no
Q9D0J4	0.9025	-0.148	0.75	no change	no
A0A140T8I9	0.7964	-0.3284	0.1559	down	no

Q9QZD8	1.171	0.2277	0.1835	no change	no
A0A1B0GSX7	0.1359	-2.879	0.1754	down	no
E9Q7N5	36.47	5.189	0.1337	up	no
Q3UGQ2	0.7456	-0.4235	0.1458	down	no
A0A1D5RLG3	1.702	0.7672	0.09809	up	no
F2Z455	1.265	0.3391	0.5872	up	no
G3UXT7	1.12	0.1635	0.6569	no change	no
Q3UBT6	0.6161	-0.6988	0.1745	down	no
A0A0G2JGD2	1.239	0.3092	0.2731	up	no
O70579	1.082	0.1137	0.7115	no change	no
A0A286YDG0	0.839	-0.2533	0.6174	no change	no
Q9DAD0	0.749	-0.417	0.3448	down	no
E9Q5W2	0.7301	-0.4538	0.3844	down	no
Q571A2	0.9545	-0.06718	0.8685	no change	no
A0A2X0SG17	1.556	0.6378	0.3181	up	no
Q8QZS3	1.221	0.2881	0.7477	up	no
A0A2C9F2D2	0.5222	-0.9373	0.2178	down	no
P97363	0.5837	-0.7767	0.06486	down	no
Q91YJ3	1.239	0.3092	0.531	up	no
D3YVU0	0.6828	-0.5505	0.1514	down	no
Q99PP2	1.113	0.1545	0.867	no change	no
B7ZWI4	1.248	0.3196	0.6983	up	no
Q3U5P4	1.852	0.8891	0.07988	up	no
F7BJB9	1.22	0.2869	0.4251	up	no
E9QA57	0.713	-0.488	0.3539	down	no
Q6PGC1	0.6948	-0.5253	0.615	down	no
Q60996	0.7761	-0.3657	0.6242	down	no
A0A1D5RLF1	1.331	0.4125	0.288	up	no
A0A5F8MPG6	1.716	0.779	0.3748	up	no
E9Q6J5	1.753	0.8098	0.1143	up	no
B2RXQ4	0.4953	-1.014	0.05359	down	no
A0A0R4J260	0.5141	-0.9599	0.5161	down	no
B7XGA6	0.9483	-0.07658	0.9022	no change	no
Q3UHE0	1.108	0.148	0.7479	no change	no
K0J1C6	1.094	0.1296	0.8071	no change	no
A0A0G2JGS4	0.3887	-1.363	0.3521	down	no
A0A0J9YV30	0.6873	-0.541	0.5411	down	no
Q9JJ28	0.8704	-0.2002	0.1454	no change	no
A0A2I3BQF0	1.063	0.08814	0.8809	no change	no
A0A0R4J008	1.318	0.3984	0.3009	up	no
A0A087WNW8	1.477	0.5627	0.1768	up	no
P59017	1.976	0.9826	0.1578	up	no
Q9DC22	2.412	1.27	0.0535	up	no

Q99LX3	1.829	0.8711	0.1848	up	no
A0A2R8VHX5	0.9737	-0.03845	0.8802	no change	no
Q99KR8	1.349	0.4319	0.6642	up	no
Q8K057	1.18	0.2388	0.7371	no change	no
Q5S003	1.143	0.1928	0.7293	no change	no
A0JNY3	0.5437	-0.8791	0.1603	down	no
Q9DC29	1.069	0.09626	0.8356	no change	no
E9QME5	3.866	1.951	0.2335	up	no
D3Z2E3	1.048	0.06764	0.7024	no change	no
B7ZWC4	2.428	1.28	0.1931	up	no
D3Z600	0.5518	-0.8578	0.1322	down	no
A0A2I3BRK6	1.56	0.6415	0.4262	up	no
Q80YS9	0.9053	-0.1435	0.7218	no change	no
Q8K2V6	2.012	1.009	0.2033	up	no
Q8CGW4	0.3358	-1.574	0.102	down	no
O54804	0.8392	-0.2529	0.692	no change	no
Q61216	1.191	0.2522	0.6775	no change	no
Q9D289	1.333	0.4147	0.176	up	no
A0A0R4J1W7	0.7862	-0.347	0.3566	down	no
Q812F3	1.006	0.00863	0.9665	no change	no
Q9JKY0	0.8572	-0.2223	0.7324	no change	no
Q8K2T8	1.295	0.373	0.5295	up	no
P51163	1.323	0.4038	0.1873	up	no
A0A0R4J005	1.094	0.1296	0.5551	no change	no
Q3TIU4	0.8361	-0.2583	0.4297	no change	no
Q9JLN9	0.8362	-0.2581	0.61	no change	no
D3Z6V5	1.014	0.02006	0.9151	no change	no
G3UWC2	1.231	0.2998	0.3354	up	no
A2APB8	0.9743	-0.03756	0.9113	no change	no
A0A1B0GR60	0.3233	-1.629	0.2391	down	no
E9PX68	1.224	0.2916	0.646	up	no
A2A7A7	1.168	0.224	0.4843	no change	no
O88811	0.785	-0.3492	0.3421	down	no
Q9CYA0	0.5983	-0.7411	0.3262	down	no
E9QP09	0.7512	-0.4127	0.7099	down	no
Q14CH7	0.6505	-0.6204	0.1765	down	no
E9PYy5	0.6958	-0.5233	0.2653	down	no
Q9CXF7	0.7638	-0.3887	0.4386	down	no
D3Z1I2	0.623	-0.6827	0.2654	down	no
B1AT82	0.6725	-0.5724	0.5186	down	no
I7HIQ5	0.6064	-0.7217	0.1434	down	no
Q8K3S0	1.018	0.02574	0.8688	no change	no
Q3UM18	1.022	0.0314	0.9486	no change	no

Q9JHH6	1.478	0.5636	0.2713	up	no
Q6TCG2	5.927	2.567	0.4106	up	no
P70410	1.684	0.7519	0.3564	up	no
Q5F2C3	1.119	0.1622	0.9154	no change	no
Q80WT5	0.7891	-0.3417	0.6002	down	no
F7ARZ1	1.295	0.373	0.4743	up	no
A0A067XG46	0.534	-0.9051	0.4963	down	no
G3X9K3	2.709	1.438	0.3645	up	no
A0A338P6F2	1.137	0.1852	0.5859	no change	no
Q8BT63	1.101	0.1388	0.7966	no change	no
Q9CPR1	1.118	0.1609	0.3367	no change	no
Q8R4R6	0.6415	-0.6405	0.272	down	no
Q8R123	1.146	0.1966	0.8837	no change	no
B2RUG7	1.742	0.8007	0.4406	up	no
D3YYQ8	0.7224	-0.4691	0.1416	down	no
E0CZ22	0.9754	-0.03593	0.8927	no change	no
A0A0N4SWA2	0.7052	-0.5039	0.1178	down	no
A0A0R4J0B4	0.384	-1.381	0.06407	down	no
A0A0R4J047	0.5509	-0.8601	0.2259	down	no
Q80X85	1.774	0.827	0.07883	up	no
Q8VDF2	1.292	0.3696	0.1677	up	no
P97376	0.5897	-0.7619	0.3155	down	no
A2AFQ9	0.1257	-2.992	0.05906	down	no
A0A0R4J0X8	0.8048	-0.3133	0.2814	down	no
Q8C1C8	1.268	0.3426	0.3366	up	no
Q9CR58	1.619	0.6951	0.2885	up	no
O88840	0.06106	-4.034	0.3549	down	no
H3BK16	3.641	1.864	0.05112	up	no
A0A286YDC5	0.903	-0.1472	0.5625	no change	no
Q5SPV6	0.8059	-0.3113	0.2774	down	no
D3YZ54	2.033	1.024	0.4504	up	no
F8VPK0	3.154	1.657	0.1043	up	no
E9Q811	2.322	1.215	0.4495	up	no
Q9CQ29	1.866	0.8999	0.4019	up	no
Q8VCF0	1.5	0.585	0.3498	up	no
Q3TGM7	0.829	-0.2706	0.4894	down	no
Q8CGC6	0.8899	-0.1683	0.7363	no change	no
Q80U44	1.454	0.54	0.4086	up	no
E9Q7L1	1.807	0.8536	0.08701	up	no
Q8BWR4	1.329	0.4103	0.627	up	no
G3X963	1.021	0.02998	0.9677	no change	no
G3UYQ4	0.6534	-0.614	0.2976	down	no
Q3U484	0.6515	-0.6182	0.3008	down	no

G5E8P1	0.7975	-0.3264	0.3642	down	no
Q99JX4	0.4939	-1.018	0.1181	down	no
A2A8U2	0.853	-0.2294	0.6375	no change	no
Q3TWH4	0.9671	-0.04826	0.9193	no change	no
Q80W93	0.8125	-0.2996	0.2348	down	no
Q8CDM8	0.6816	-0.553	0.6816	down	no
G3X9U9	1.113	0.1545	0.7932	no change	no
A2AAN0	1.874	0.9061	0.057	up	no
Q3UNC0	0.9575	-0.06266	0.8792	no change	no
Q3UXD9	2.766	1.468	0.1458	up	no
A2AUR7	1.345	0.4276	0.5876	up	no
A2CG35	0.5917	-0.7571	0.2899	down	no
E9Q5D6	0.7248	-0.4643	0.404	down	no
Q9EPE9	0.6132	-0.7056	0.2789	down	no
A2AJP9	0.3921	-1.351	0.2735	down	no
A0A494B9H1	1.397	0.4823	0.1587	up	no
Q80SY5	1.693	0.7596	0.1657	up	no
A2AWA9	1.14	0.189	0.8146	no change	no
Q5SFM8	1.031	0.04404	0.8816	no change	no
A2APR8	1.476	0.5617	0.4335	up	no
B7ZC23	0.9141	-0.1296	0.9108	no change	no
D3YWX2	1.203	0.2666	0.2993	up	no
Q5ND50	0.8497	-0.235	0.6407	no change	no
Q921I9	1.386	0.4709	0.05294	up	no
A0A0R4J032	1.985	0.9891	0.3266	up	no
A0A075B5P4	0.2682	-1.899	0.1701	down	no
Q9CSH3	1.145	0.1953	0.2821	no change	no
Q3U661	1.798	0.8464	0.3214	up	no
Q64669	1.172	0.229	0.7501	no change	no
Q3TX51	0.525	-0.9296	0.0712	down	no
Q91W96	1.907	0.9313	0.1593	up	no
P16015	1.761	0.8164	0.1349	up	no
Q3UAT2	0.5862	-0.7705	0.3631	down	no
A0A1D5RLL3	1.349	0.4319	0.2819	up	no
Q3U3Y0	0.8257	-0.2763	0.6702	down	no
P70202	1.835	0.8758	0.4747	up	no
E0CXR5	0.634	-0.6574	0.3154	down	no
E9QM77	1.277	0.3528	0.7341	up	no
D3YWN7	0.2903	-1.784	0.3383	down	no
A0A3B2WD26	1.587	0.6663	0.4032	up	no
E9Q7G0	1.057	0.07998	0.6059	no change	no
E9Q9C5	1.048	0.06764	0.792	no change	no
A0A338P7L8	1.034	0.04824	0.9566	no change	no

D3YUJ1	2.361	1.239	0.08117	up	no
A6H649	0.4292	-1.22	0.5194	down	no
Q9D180	0.4654	-1.103	0.1644	down	no
A0A1W2P733	0.8381	-0.2548	0.3641	no change	no
Q05DE0	1.452	0.538	0.2185	up	no
D3YVM2	0.7586	-0.3986	0.288	down	no
E0CXE7	2.499	1.321	0.3558	up	no
D3Z4K0	1.048	0.06764	0.9027	no change	no
Q9JI48	1.22	0.2869	0.239	up	no
D3YYU6	0.5989	-0.7396	0.1168	down	no
F8WIE5	1.267	0.3414	0.6209	up	no
Q14DT8	0.9523	-0.07051	0.9113	no change	no
Q3KNK3	0.6619	-0.5953	0.153	down	no
Q91VR8	1.299	0.3774	0.3188	up	no
Q9CPS7	0.3329	-1.587	0.1305	down	no
A0A494BAF9	1.088	0.1217	0.7993	no change	no
D3YWG8	1.399	0.4844	0.534	up	no
Q8C761	1.506	0.5907	0.246	up	no
Q8BSE0	1.235	0.3045	0.5485	up	no
A6H6T7	1.172	0.229	0.4274	no change	no
Q6P8K2	0.845	-0.243	0.4537	no change	no
A0A075B5J9	1.377	0.4615	0.5152	up	no
Q8CCH2	9.681	3.275	0.4073	up	no
Q91WC0	0.8235	-0.2802	0.3025	down	no
Q3ULP8	1.456	0.542	0.2921	up	no
Q8BTS4	0.4736	-1.078	0.2642	down	no
A6H8H2	0.1373	-2.865	0.3865	down	no
A3K MJ8	1.616	0.6924	0.1141	up	no
Q3URX8	2.347	1.231	0.137	up	no
G3X9H5	1.18	0.2388	0.5189	no change	no
Q8C3Y4	1.002	0.002883	0.9936	no change	no
B2RY56	1.455	0.541	0.3394	up	no
Q3UQV5	1.226	0.294	0.5615	up	no
Q8R2R1	0.8682	-0.2039	0.557	no change	no
A0A1W2P711	0.8181	-0.2897	0.6418	down	no
Q8C547	0.5221	-0.9376	0.1828	down	no
A0A0R4J1P4	1.6	0.6781	0.1676	up	no
D3YY S6	0.5687	-0.8143	0.175	down	no
Q3TJQ7	6.692	2.742	0.139	up	no
E9QLR3	0.9988	-0.001732	0.9951	no change	no
E9Q481	0.532	-0.9105	0.1198	down	no
D6RGQ0	2.522	1.335	0.2576	up	no
P61406	0.8421	-0.2479	0.4751	no change	no

Q60675	1.125	0.1699	0.7785	no change	no
Q80Y73	0.4792	-1.061	0.08575	down	no
Q3TR89	0.9132	-0.131	0.4862	no change	no
Q3TEA8	1.491	0.5763	0.5618	up	no
Q9CWA5	0.4284	-1.223	0.2771	down	no
F6UP77	0.5214	-0.9395	0.5138	down	no
Q9DAH2	0.9903	-0.01406	0.9045	no change	no
A0A1L1SRH8	0.4874	-1.037	0.18	down	no
Q8BLF1	0.3587	-1.479	0.07516	down	no
Q68FD6	1.675	0.7442	0.4109	up	no
G5E8J9	1.018	0.02574	0.977	no change	no
E0CXK5	0.7899	-0.3403	0.3281	down	no
Q3U0C4	1.384	0.4688	0.3369	up	no
A0A0R4J2A7	0.5047	-0.9865	0.2474	down	no
Q571M0	0.9169	-0.1252	0.3545	no change	no
F8WHU9	0.85	-0.2345	0.6843	no change	no
Q3TTY0	1.533	0.6164	0.1802	up	no
E9PVM9	0.7226	-0.4687	0.409	down	no
A0A5F8MPV5	0.8626	-0.2132	0.1438	no change	no
B2RWV7	0.8113	-0.3017	0.413	down	no
A0A0G2JDV6	0.8558	-0.2247	0.4811	no change	no
G3X9B1	1.363	0.4468	0.4797	up	no
Q3MSC8	2.21	1.144	0.3405	up	no
D6RI86	0.4993	-1.002	0.2141	down	no
E9Q640	2.085	1.06	0.1539	up	no
Q8BK37	0.9971	-0.00419	0.9916	no change	no
E9PUR0	3.194	1.675	0.2523	up	no
Q9D270	1.447	0.5331	0.3519	up	no
E9Q0U7	0.98	-0.02915	0.9253	no change	no
Q05AC5	1.677	0.7459	0.216	up	no
Q91WG4	1.278	0.3539	0.5116	up	no
A0A0R4J0B8	1.783	0.8343	0.1351	up	no
E9Q4M2	0.3889	-1.363	0.1906	down	no
Q9D9Z7	0.8597	-0.2181	0.7448	no change	no
Q80X56	2.344	1.229	0.2364	up	no
Q2TPA8	0.7681	-0.3806	0.5324	down	no
A2AG41	0.5889	-0.7639	0.08726	down	no
B1AV36	1.864	0.8984	0.2329	up	no
A0A0R4J0H7	1.226	0.294	0.5271	up	no
Q9D7N9	0.4471	-1.161	0.1258	down	no
P51141	0.898	-0.1552	0.699	no change	no
Q99KP3	1.176	0.2339	0.7299	no change	no
Q6P3A8	1.746	0.8041	0.1327	up	no

Q9DBG5	1.117	0.1596	0.8076	no change	no
B9EKJ3	0.5998	-0.7374	0.1938	down	no
B0QZT2	0.2086	-2.261	0.3144	down	no
A0A1D5RLG0	1.88	0.9107	0.361	up	no
D3YY36	0.771	-0.3752	0.77	down	no
Q9CX80	0.9861	-0.02019	0.95	no change	no
Q9JM13	1.187	0.2473	0.5161	no change	no
D3YUN1	1.31	0.3896	0.315	up	no
Q9ET22	1.086	0.119	0.8943	no change	no
Q6P5C1	0.7741	-0.3694	0.7178	down	no
A0A140LIT2	1.397	0.4823	0.1456	up	no
Q8CI43	1.275	0.3505	0.1187	up	no
D3Z0M6	1.036	0.05102	0.9145	no change	no
B2RWV8	0.3508	-1.511	0.0522	down	no
E9PY58	0.7353	-0.4436	0.4048	down	no
P59016	0.6418	-0.6398	0.4012	down	no
Q8CDL9	1.375	0.4594	0.556	up	no
C4P6S0	1.153	0.2054	0.8276	no change	no
Q920I9	1.087	0.1204	0.5529	no change	no
Q3ULI5	1.449	0.5351	0.3393	up	no
P99024	0.7587	-0.3984	0.5748	down	no
Q6KCD5	1.745	0.8032	0.6409	up	no
A8C756	0.000264	-11.88	0.2302	down	no
Q8C8R9	1.907	0.9313	0.3642	up	no
A2APV2	0.862	-0.2142	0.7097	no change	no
Q99LG2	0.5238	-0.9329	0.3844	down	no
Q8R3N6	0.7509	-0.4133	0.2628	down	no
Q8BKG3	0.1327	-2.914	0.3979	down	no
Q8C013	0.6995	-0.5156	0.2098	down	no
P97480	0.9356	-0.09604	0.8707	no change	no
P52431	1.035	0.04963	0.6529	no change	no
Q3TR67	0.7598	-0.3963	0.6925	down	no
O35239	1.548	0.6304	0.1775	up	no
P21956	1.131	0.1776	0.755	no change	no
F6QCI0	1.101	0.1388	0.8736	no change	no
Q8C3I8	0.9368	-0.09419	0.7878	no change	no
Q8K4P0	1.642	0.7155	0.1189	up	no
Q04447	0.8856	-0.1753	0.6817	no change	no
Q8C108	1.832	0.8734	0.072	up	no
Q9CZP5	0.8811	-0.1826	0.5224	no change	no
D3Z7E5	0.9325	-0.1008	0.9021	no change	no
Q0P557	0.3214	-1.638	0.2461	down	no
E9Q9V1	2.455	1.296	0.3537	up	no

A0A1S6GWI6	1.318	0.3984	0.4173	up	no
Q9WUB3	0.7933	-0.3341	0.7491	down	no
A0A0G2JGQ3	0.389	-1.362	0.1049	down	no
P54276	1.096	0.1322	0.8646	no change	no
G5DDB7	1.222	0.2892	0.07795	up	no
Q920F6	0.6349	-0.6554	0.4397	down	no
Q8BFQ8	1.362	0.4457	0.4098	up	no
A0A571BEK9	0.4319	-1.211	0.2106	down	no
Q3UUI3	0.8715	-0.1984	0.6213	no change	no
A0A3B2WAS6	1.512	0.5965	0.5018	up	no
D3YTR7	1.355	0.4383	0.5144	up	no
A2AKA9	1.303	0.3818	0.1899	up	no
Q99J39	7.498	2.907	0.3478	up	no
Q8BFY6	1.081	0.1124	0.8839	no change	no
Q6IMH0	0.8262	-0.2754	0.5327	down	no
Q01279	0.8168	-0.2919	0.692	down	no
Q3UYV8	2.62	1.39	0.201	up	no
Q6NXL1	0.8455	-0.2421	0.7986	no change	no
Q3U7R1	1.564	0.6452	0.3022	up	no
Q3USS3	0.6904	-0.5345	0.3561	down	no
D6MZJ6	0.4768	-1.069	0.1081	down	no
Q8CHG0	1.149	0.2004	0.09099	no change	no
P26231	0.9421	-0.08605	0.8526	no change	no
B7ZC18	1.405	0.4906	0.4629	up	no
Q5I1X5	0.9811	-0.02753	0.986	no change	no
Q6K1E7	2.486	1.314	0.1019	up	no
Q7TT37	1.563	0.6443	0.6056	up	no
A0A1D5RM94	1.045	0.0635	0.9267	no change	no
G3UY62	1.048	0.06764	0.9137	no change	no
F6WJB7	0.8906	-0.1672	0.6433	no change	no
O08601	1.583	0.6627	0.3301	up	no
A0A1S6GWG5	1.948	0.962	0.1578	up	no
Q9D7M1	0.887	-0.173	0.4722	no change	no
Q6PAR5	0.8504	-0.2338	0.7395	no change	no
D1FNM9	0.7329	-0.4483	0.5782	down	no
Q8CAK1	1.634	0.7084	0.2582	up	no
O88845	1.166	0.2216	0.7949	no change	no
Q8R480	0.5504	-0.8614	0.4841	down	no
A0A0R4IZY9	1.525	0.6088	0.4603	up	no
A0A0R4J1R1	2.685	1.425	0.22	up	no
A0A2I3BQ30	0.6079	-0.7181	0.1064	down	no
P23780	1.033	0.04684	0.9692	no change	no
F6T2H5	1.623	0.6987	0.35	up	no

Q6A0A9	1.507	0.5917	0.4801	up	no
P97452	0.8937	-0.1621	0.6558	no change	no
Q4FZG7	1.094	0.1296	0.8058	no change	no
Q80ZX0	0.4841	-1.047	0.4141	down	no
P47811	1.939	0.9553	0.2069	up	no
A2AKX3	0.6968	-0.5212	0.4121	down	no
Q99K70	1.086	0.119	0.7758	no change	no
E9QAB8	1.465	0.5509	0.4181	up	no
Q8CD15	0.001138	-9.779	0.07725	down	no
B7ZNX2	2.927	1.549	0.2998	up	no
Q05CA9	1.168	0.224	0.8142	no change	no
Q80TE0	1.219	0.2857	0.8258	up	no
E9Q411	1.082	0.1137	0.583	no change	no
E9Q9X1	0.8903	-0.1676	0.7197	no change	no
Q80T69	1.432	0.518	0.3724	up	no
Q8BU33	0.803	-0.3165	0.6189	down	no
A8Y5J3	0.3437	-1.541	0.1207	down	no
A0A087WP54	1.586	0.6654	0.3787	up	no
P29788	0.5676	-0.8171	0.3176	down	no
Q8C1Y8	0.9425	-0.08544	0.9477	no change	no
A2A716	1.945	0.9598	0.2174	up	no
A0A0N4SWH5	1.666	0.7364	0.2855	up	no
Q3UXK4	1.011	0.01578	0.9702	no change	no
A0A338P7D2	1.753	0.8098	0.3821	up	no
A0A0A6YW77	0.6596	-0.6003	0.1373	down	no
A0A0A0MQ89	2.134	1.094	0.4663	up	no
Q9DA73	1.847	0.8852	0.1225	up	no
A0A338P6U4	0.8156	-0.2941	0.6128	down	no
A0A1L1SQR4	0.056	-4.158	0.3392	down	no
P15920	0.6061	-0.7224	0.3391	down	no
Q80TD9	0.9727	-0.03993	0.8725	no change	no
Q8K124	0.5984	-0.7408	0.1841	down	no
Q3T993	0.9335	-0.09928	0.8419	no change	no
Q9CQ54	0.3696	-1.436	0.151	down	no
Q8BGB5	1.651	0.7233	0.3455	up	no
Q9Z247	0.8892	-0.1694	0.8077	no change	no
Q3U7U3	0.3108	-1.686	0.1182	down	no
Q3TP92	0.6447	-0.6333	0.212	down	no
Q32NY8	0.8676	-0.2049	0.7501	no change	no
Q60520	3.637	1.863	0.235	up	no
A2RTF1	0.5387	-0.8924	0.2598	down	no
Q6P069	0.6152	-0.7009	0.5248	down	no
E9Q1D5	4.05	2.018	0.3321	up	no

A0A2I3BPM0	1.33	0.4114	0.5835	up	no
A0A571BD95	0.7249	-0.4641	0.08963	down	no
P97313	0.7422	-0.4301	0.6989	down	no
O08759	0.8141	-0.2967	0.5574	down	no
A0A1L1STC6	0.4975	-1.007	0.3181	down	no
Q8VC60	0.6909	-0.5335	0.1085	down	no
A0A140LIY9	1.022	0.0314	0.9381	no change	no
A0PJN6	0.7154	-0.4832	0.5183	down	no
Q9D1M7	0.8796	-0.1851	0.7688	no change	no
Q05CH9	0.8111	-0.302	0.2845	down	no
Q99J79	0.5247	-0.9304	0.284	down	no
O54863	0.274	-1.868	0.06214	down	no
Q8R3D1	0.99	-0.0145	0.9832	no change	no
D3YWS8	1.438	0.5241	0.2308	up	no
Q6NZN9	1.861	0.8961	0.1906	up	no
Q99MW5	1.671	0.7407	0.1549	up	no
Q6ZPU9	0.9259	-0.1111	0.7782	no change	no
A0A0F7IQ06	1.104	0.1427	0.644	no change	no
Q06BK5	1.161	0.2154	0.7497	no change	no
Q8VD72	0.8807	-0.1833	0.7684	no change	no
Q8K0D5	1.16	0.2141	0.5802	no change	no
E9PU96	0.6405	-0.6427	0.4816	down	no
G3X9Z0	1.209	0.2738	0.4013	up	no
Q61771	0.4749	-1.074	0.2997	down	no
Q80XN0	1.128	0.1738	0.7909	no change	no
Q8R5H1	0.4967	-1.01	0.4573	down	no
A0A140LIF0	1.25	0.3219	0.7029	up	no
Q60771	0.5737	-0.8016	0.2047	down	no
A2CF80	0.1972	-2.342	0.2922	down	no
A8Y5L4	0.7012	-0.5121	0.3353	down	no
Q3UQ71	0.6277	-0.6719	0.2664	down	no
Q6A0A2	1.277	0.3528	0.7003	up	no
B7FAU5	3.528	1.819	0.2011	up	no
H3BJ02	1.034	0.04824	0.9299	no change	no
Q05DI0	1.81	0.856	0.2876	up	no
A0A1Y7VLT3	1.175	0.2327	0.7257	no change	no
Q3U523	0.4956	-1.013	0.1895	down	no
O89053	0.5145	-0.9588	0.06242	down	no
Q9JK83	1.07	0.09761	0.8423	no change	no
B1AZ46	0.6395	-0.645	0.3827	down	no
A0A0R4IZZ6	1.23	0.2987	0.4411	up	no
D3YXF5	0.4395	-1.186	0.2651	down	no
B1AVH5	0.7755	-0.3668	0.6729	down	no

E0CZE0	0.5482	-0.8672	0.06411	down	no
Q64511	1.564	0.6452	0.1011	up	no
F8WH41	0.7127	-0.4886	0.2884	down	no
Q3UVL4	0.747	-0.4208	0.3991	down	no
Q3THL5	1.419	0.5049	0.3205	up	no
Q9CWU2	1.864	0.8984	0.2744	up	no
A0A1D5RLT6	1.039	0.0552	0.9383	no change	no
O88799	0.8559	-0.2245	0.7585	no change	no
Q8R1K1	2.308	1.207	0.2009	up	no
G3UWD6	0.6776	-0.5615	0.2432	down	no
Q3TZZ7	0.7771	-0.3638	0.6052	down	no
Q9D2N9	0.8019	-0.3185	0.5802	down	no
O09159	1.229	0.2975	0.7897	up	no
D3YZC7	0.8806	-0.1834	0.8041	no change	no
Q9CU65	4.657	2.219	0.1778	up	no
Q924W5	0.482	-1.053	0.2563	down	no
G5E8J3	0.8483	-0.2374	0.5617	no change	no
B1ARW8	0.4967	-1.01	0.332	down	no
A0A2I3BQS6	0.8242	-0.2789	0.6955	down	no
A0A087WR50	1.165	0.2203	0.7983	no change	no
D3YW25	0.8533	-0.2289	0.4926	no change	no
Q7M6U3	0.6994	-0.5158	0.1841	down	no
Q8VEH8	0.6532	-0.6144	0.2099	down	no
A0A286YCX6	1.083	0.115	0.7051	no change	no
Q4VAE3	1.404	0.4895	0.09012	up	no
A2AUF7	0.9305	-0.1039	0.8298	no change	no
Q9CWW6	1.807	0.8536	0.07353	up	no
Q8BI71	2.234	1.16	0.4803	up	no
Q3TUH8	1.839	0.8789	0.1705	up	no
D3Z3A8	1.351	0.434	0.5778	up	no
E9Q2S9	1.505	0.5898	0.5748	up	no
P18293	1.8	0.848	0.2015	up	no
A0A3Q4EC50	1.197	0.2594	0.626	no change	no
Q64127	0.7137	-0.4866	0.5193	down	no
Q05CJ7	0.4922	-1.023	0.2185	down	no
A2AJB1	0.4887	-1.033	0.1502	down	no
F6Y247	1.444	0.5301	0.1894	up	no
Q8BXC6	1.233	0.3022	0.688	up	no
Q8BKX6	1.315	0.3951	0.7338	up	no
Q6NS46	1.171	0.2277	0.7493	no change	no
Q9DB16	0.7827	-0.3535	0.7	down	no
Q3U0D9	0.3331	-1.586	0.068	down	no
A2RRR3	1.436	0.5221	0.2168	up	no

A0A0U1RNK7	1.746	0.8041	0.1749	up	no
P05063	1.006	0.00863	0.9898	no change	no
C0HKD1	0.5755	-0.7971	0.05836	down	no
Q9D1N9	0.7721	-0.3731	0.6027	down	no
P31001	0.3047	-1.715	0.082	down	no
Q8CGN5	1.72	0.7824	0.5011	up	no
A0A140LJB8	3.011	1.59	0.1308	up	no
Q8CE96	1.287	0.364	0.6715	up	no
B2RV46	1.67	0.7398	0.3306	up	no
A0A1Y7VNM3	2.396	1.261	0.1431	up	no
Q05DI2	1.68	0.7485	0.4578	up	no
A0A385JBX3	0.5197	-0.9442	0.0666	down	no
A0A0R4J0G7	1.658	0.7294	0.234	up	no
P62915	1.045	0.0635	0.8908	no change	no
O35654	1.323	0.4038	0.5641	up	no
Q80U56	1.53	0.6135	0.1575	up	no
Q91YM4	0.5019	-0.9945	0.186	down	no
P62960	3.376	1.755	0.4403	up	no
A0A571BD48	0.4703	-1.088	0.2291	down	no
Q3V068	0.7714	-0.3744	0.6406	down	no
E9PUZ5	0.7683	-0.3803	0.4953	down	no
P17809	0.4267	-1.229	0.08631	down	no
P97390	0.6	-0.737	0.3325	down	no
D3Z5H3	1.848	0.886	0.3067	up	no
A0A217FL69	0.9147	-0.1286	0.8413	no change	no
A0A0N4SVQ0	1.123	0.1674	0.5915	no change	no
P04919	1.076	0.1057	0.8604	no change	no
E9QN31	1.042	0.05936	0.894	no change	no
Q8R2P1	0.9619	-0.05604	0.9126	no change	no
P41209	0.6887	-0.5381	0.1194	down	no
Q6PJN8	0.572	-0.8059	0.3874	down	no
Q6KAR6	0.8152	-0.2948	0.5299	down	no
A0A3B2W837	0.87	-0.2009	0.8119	no change	no
Q3U912	0.9047	-0.1445	0.8076	no change	no
Q9DC48	3.018	1.594	0.2388	up	no
Q3TKL5	0.9502	-0.0737	0.8499	no change	no
Q9D2E2	1.125	0.1699	0.8505	no change	no
F6S4B9	0.9857	-0.02078	0.9745	no change	no
F7B1B6	1.313	0.3929	0.1978	up	no
A0A3Q4EHZ1	4.763	2.252	0.173	up	no
Q6PAL7	1.751	0.8082	0.2286	up	no
A0A140T8M2	0.9295	-0.1055	0.8832	no change	no
Q9D2H8	5.507	2.461	0.2017	up	no

A0A0J9YU92	1.207	0.2714	0.6842	up	no
Q80X95	1.643	0.7163	0.2998	up	no
D3Z7B5	0.6944	-0.5262	0.2989	down	no
A0A023ZT56	6.883	2.783	0.3561	up	no
A0A087WSS1	1.056	0.07861	0.8998	no change	no
A0A0R4J101	0.6375	-0.6495	0.3887	down	no
Q8BPC6	0.493	-1.02	0.4008	down	no
A0A1S6GWJ4	1.136	0.184	0.7346	no change	no
B9EKL9	1.143	0.1928	0.7251	no change	no
A0A0R4J0F6	0.7118	-0.4905	0.1374	down	no
Q3TEL5	0.5455	-0.8743	0.3499	down	no
Q9D0C4	0.249	-2.006	0.2245	down	no
A5YBK2	1.44	0.5261	0.4093	up	no
Q9DAI5	0.3739	-1.419	0.1439	down	no
Q6NVE9	0.6094	-0.7145	0.1638	down	no
A0A0R4J139	6.821	2.77	0.3045	up	no
Q6P6M7	6.072	2.602	0.2303	up	no
Q8BHX1	0.5907	-0.7595	0.2383	down	no
A0A1L1SS60	0.8021	-0.3181	0.4098	down	no
D3YU89	0.8268	-0.2744	0.7641	down	no
A4FUU9	0.5846	-0.7745	0.3251	down	no
Q3U2F2	1.3	0.3785	0.6983	up	no
P49182	1.329	0.4103	0.2758	up	no
A1L0U6	0.8148	-0.2955	0.6723	down	no
A0A1Z4EAV4	0.7605	-0.395	0.5558	down	no
Q8BH89	0.7529	-0.4095	0.6719	down	no
Q9Z1W9	0.3372	-1.568	0.408	down	no
Q571D6	1.119	0.1622	0.7391	no change	no
A2A9P6	0.7001	-0.5144	0.3761	down	no
Q8CHR6	1.969	0.9775	0.153	up	no
Q5QNQ6	0.8245	-0.2784	0.6499	down	no
Q6KAQ0	1.396	0.4813	0.4862	up	no
B2RQC7	2.112	1.079	0.3058	up	no
Q8CIA5	1.586	0.6654	0.3813	up	no
A0A0R4J1H8	1.513	0.5974	0.5651	up	no
Q8C398	1.069	0.09626	0.9125	no change	no
A0A1S6GWK5	0.4993	-1.002	0.2233	down	no
E9QLK3	1.436	0.5221	0.3465	up	no
B2RUJ5	0.9802	-0.02885	0.9633	no change	no
B2RQS6	0.8454	-0.2423	0.8218	no change	no
Q3TM09	2.4	1.263	0.05993	up	no
F7C2Y9	0.7434	-0.4278	0.423	down	no
A0A3B2WAQ7	2.128	1.089	0.09979	up	no

B2RU67	0.7661	-0.3844	0.4646	down	no
O88623	1.054	0.07587	0.8529	no change	no
C6EQH2	0.6973	-0.5201	0.4794	down	no
E9QNL5	1.135	0.1827	0.7046	no change	no
Q99LJ6	0.768	-0.3808	0.4653	down	no
Q8BZY3	0.4991	-1.003	0.2277	down	no
A2AR60	0.6741	-0.569	0.3225	down	no
A0A494BAY2	0.4409	-1.181	0.3108	down	no
E9Q7F8	1.673	0.7424	0.2164	up	no
P48379	1.082	0.1137	0.8591	no change	no
B1AXZ0	0.6586	-0.6025	0.3153	down	no
Q9D5U0	0.2566	-1.962	0.07543	down	no
Q14BL3	1.074	0.103	0.8674	no change	no
A0A0R4J2D3	0.6556	-0.6091	0.5392	down	no
Q3UF10	6.696	2.743	0.1608	up	no
Q9D7A8	5.952	2.573	0.1398	up	no
O89017	1.135	0.1827	0.7671	no change	no
Q8CCX9	0.679	-0.5585	0.4383	down	no
Q3TJQ2	0.8597	-0.2181	0.6561	no change	no
P46412	1.805	0.852	0.4278	up	no
H3BIX9	0.5945	-0.7503	0.4661	down	no
D3YWJ4	0.8593	-0.2188	0.8067	no change	no
D3Z136	3.353	1.745	0.08772	up	no
Q9DC77	1.152	0.2041	0.7562	no change	no
Q9CPN8	1.865	0.8992	0.3684	up	no
G5E897	1.298	0.3763	0.3501	up	no
A0A087WNY2	0.4978	-1.006	0.2379	down	no
A0A0R4J131	1.086	0.119	0.7224	no change	no
Q9CQ24	1.023	0.03281	0.983	no change	no
P52479	0.5997	-0.7377	0.4347	down	no
I7HJQ9	1.77	0.8237	0.3802	up	no
Q80Y55	0.6041	-0.7271	0.2384	down	no
A6H685	0.5497	-0.8633	0.1708	down	no
A0A1W2P7X0	2.13	1.091	0.4232	up	no
A0A2R8W6F3	4.362	2.125	0.1714	up	no
E9Q284	0.6905	-0.5343	0.5699	down	no
Q3URQ0	0.8035	-0.3156	0.2253	down	no
A0A087WQS1	0.9206	-0.1194	0.8905	no change	no
P37913	1.182	0.2412	0.769	no change	no
P19426	0.5932	-0.7534	0.1943	down	no
A0A1Y7VLD1	1.736	0.7958	0.06396	up	no
D3Z667	0.8077	-0.3081	0.6794	down	no
P97506	1.474	0.5597	0.2797	up	no

Q9CQA5	0.9191	-0.1217	0.8516	no change	no
Q3U1H7	0.4515	-1.147	0.3029	down	no
Q3TA68	0.766	-0.3846	0.1382	down	no
Q4VA55	1.131	0.1776	0.8522	no change	no
P11881	1.649	0.7216	0.4693	up	no
D3Z3B8	0.5648	-0.8242	0.302	down	no
Q7JJ13	1.481	0.5666	0.4161	up	no
P97427	0.287	-1.801	0.1899	down	no
A0A3S8V2A4	0.8919	-0.165	0.8479	no change	no
B2RWX2	0.8498	-0.2348	0.8533	no change	no
E9QMJ1	1.214	0.2798	0.8026	up	no
Q3TLK9	1.473	0.5588	0.5657	up	no
Q3U3X7	0.5043	-0.9876	0.3563	down	no
Q60848	0.5702	-0.8105	0.4944	down	no
Q3TKI8	0.9669	-0.04856	0.9667	no change	no
A0A1L1SRC3	1.929	0.9479	0.2733	up	no
A0A0J9YTV6	0.8823	-0.1807	0.8252	no change	no
A2ATU0	1.661	0.7321	0.4862	up	no
Q8BHC7	0.4636	-1.109	0.1588	down	no
Q64324	0.286	-1.806	0.1075	down	no
Q3UK85	4.457	2.156	0.154	up	no
F6VYQ6	2.237	1.162	0.1014	up	no
F7A465	0.3328	-1.587	0.1423	down	no
Q9JLI6	0.6576	-0.6047	0.5177	down	no
S4R209	3.011	1.59	0.2518	up	no
Q5SU47	1.462	0.5479	0.6242	up	no
Q3TPU3	0.5836	-0.7769	0.5992	down	no
Q8C4J7	0.4289	-1.221	0.1967	down	no
A2AA71	0.08004	-3.643	0.2383	down	no
E9PWY6	1.354	0.4372	0.7439	up	no
A0A0R4J138	0.4611	-1.117	0.1384	down	no
Q80VC9	0.6809	-0.5545	0.5171	down	no
Q61586	3.29	1.718	0.1028	up	no
Q8CDV3	2.5	1.322	0.5086	up	no
F8VPY2	3.259	1.704	0.2552	up	no
A0A0N4SV23	0.3665	-1.448	0.07675	down	no
Q3TXR6	1.213	0.2786	0.8291	up	no
A0A494BA97	0.6075	-0.719	0.3999	down	no
Q8VBZ0	0.508	-0.9771	0.4639	down	no
P70340	0.8646	-0.2099	0.7829	no change	no
Q60770	0.7146	-0.4848	0.5014	down	no
Q9EQQ9	0.5842	-0.7755	0.4692	down	no
Q3V0N4	4.442	2.151	0.4513	up	no

D3YW40	1.222	0.2892	0.6308	up	no
Q80VP1	1.688	0.7553	0.5942	up	no
Q8R2S9	0.6072	-0.7198	0.3416	down	no
Q8K0P3	251.6	7.975	0.1332	up	no
Q3UM12	2.124	1.087	0.4543	up	no
A0A0A0MQG7	0.1471	-2.765	0.2107	down	no
Q3V036	0.3267	-1.614	0.1266	down	no
Q3T9T2	1.827	0.8695	0.354	up	no
Q69ZP3	3.247	1.699	0.4853	up	no
E9PV87	1.669	0.739	0.2809	up	no
Q3TZM9	0.007444	-7.07	0.1246	down	no
Q3TJJ5	105.4	6.72	0.1265	up	no
A1A553	0.01108	-6.496	0.1431	down	no
Q99MH5	24.7	4.626	0.3754	up	no
F6RL86	1.335	0.4168	0.3739	up	no
Q80TA9	1.053	0.07451	0.3739	no change	no
P51912	1	0	0.3737	no change	no
A0A068BD58	0	0	1	down	no
B1AS15	0	0	1	down	no
B1AUE5	0	0	1	down	no
B1AW21	0	0	1	down	no
B1AXR3	0	0	1	down	no
B1B0S0	0	0	1	down	no
B2RPV4	0	0	1	down	no
B2RQ18	0	0	1	down	no
B2RQE0	0	0	1	down	no
B2RQG2	0	0	1	down	no
B2RWS7	0	0	1	down	no
B2RWW2	0	0	1	down	no
B2RY71	0	0	1	down	no
C6EQH5	0	0	1	down	no
D3YTR4	0	0	1	down	no
D3YUJ3	0	0	1	down	no
D3YV21	0	0	1	down	no
A0A0G2JDC3	0	0	1	down	no
D3YX43	0	0	1	down	no
D3YXU7	0	0	1	down	no
A0A0G2JDP0	0	0	1	down	no
A0A0G2JDU7	0	0	1	down	no
D3YZJ1	0	0	1	down	no
D3Z161	0	0	1	down	no
D3Z479	0	0	1	down	no
D3Z4N9	0	0	1	down	no

D6RCU5	0	0	1	down	no
D6REI9	0	0	1	down	no
D6RH70	0	0	1	down	no
E0CX39	0	0	1	down	no
E0CYZ4	0	0	1	down	no
E0CZ26	0	0	1	down	no
E9PV68	0	0	1	down	no
E9PX30	0	0	1	down	no
E9PX70	0	0	1	down	no
A0A068BIT8	0	0	1	down	no
E9Q1K1	0	0	1	down	no
E9Q2A6	0	0	1	down	no
E9Q2B0	0	0	1	down	no
E9Q3Q6	0	0	1	down	no
E9Q9F6	0	0	1	down	no
A0A0G2JGK0	0	0	1	down	no
E9Q9U8	0	0	1	down	no
E9QA46	0	0	1	down	no
A0A0G2JGK7	0	0	1	down	no
E9QKK8	0	0	1	down	no
F6RV41	0	0	1	down	no
A0A0G2LB92	0	0	1	down	no
F6UT94	0	0	1	down	no
F6YFR7	0	0	1	down	no
A0A0J9YKD4	0	0	1	down	no
F7BAT9	0	0	1	down	no
G3UX80	0	0	1	down	no
G3UYC6	0	0	1	down	no
G3UZ04	0	0	1	down	no
G3X8P9	0	0	1	down	no
G3X983	0	0	1	down	no
A0A0J9YVH4	0	0	1	down	no
O09107	0	0	1	down	no
A0A0N4SV10	0	0	1	down	no
O88520	0	0	1	down	no
A0A023J5X8	0	0	1	down	no
A0A0N4SVK2	0	0	1	down	no
P08207	0	0	1	down	no
P11688	0	0	1	down	no
P28653	0	0	1	down	no
P39039	0	0	1	down	no
P39429	0	0	1	down	no
P51432	0	0	1	down	no

P51569	0	0	1	down	no
P54320	0	0	1	down	no
P83870	0	0	1	down	no
P97872	0	0	1	down	no
Q02614	0	0	1	down	no
Q06770	0	0	1	down	no
Q0VF52	0	0	1	down	no
A0A0R4J0G6	0	0	1	down	no
Q2TK26	0	0	1	down	no
Q3KNL4	0	0	1	down	no
Q3TRG2	0	0	1	down	no
Q3TSZ4	0	0	1	down	no
Q3TTE4	0	0	1	down	no
Q3TVI8	0	0	1	down	no
Q3U0S4	0	0	1	down	no
Q3U6E9	0	0	1	down	no
A0A087WNZ5	0	0	1	down	no
Q3UFK8	0	0	1	down	no
Q3UFS0	0	0	1	down	no
Q3UGL8	0	0	1	down	no
Q3URT5	0	0	1	down	no
Q3V2J1	0	0	1	down	no
Q4KKZ1	0	0	1	down	no
Q4VAE8	0	0	1	down	no
Q5EBG8	0	0	1	down	no
Q5EBI7	0	0	1	down	no
Q5M9P2	0	0	1	down	no
Q5RL20	0	0	1	down	no
A0A0R4J1T3	0	0	1	down	no
Q62000	0	0	1	down	no
Q68ED7	0	0	1	down	no
Q6A058	0	0	1	down	no
A0A0R4J1Y9	0	0	1	down	no
Q6NS52	0	0	1	down	no
Q6N WV4	0	0	1	down	no
Q6PB51	0	0	1	down	no
Q6PE87	0	0	1	down	no
Q6RI63	0	0	1	down	no
Q6TDU8	0	0	1	down	no
Q71FD5	0	0	1	down	no
Q7TMX6	0	0	1	down	no
Q7TNG8	0	0	1	down	no
Q7TNL7	0	0	1	down	no

Q80ZS3	0	0	1	down	no
A0A0U1RNQ7	0	0	1	down	no
Q8BH35	0	0	1	down	no
Q8BHB4	0	0	1	down	no
Q8BHK9	0	0	1	down	no
Q8BHX3	0	0	1	down	no
Q8BJT9	0	0	1	down	no
A0A0U1RPD8	0	0	1	down	no
A0A0U1RPL2	0	0	1	down	no
Q8BX02	0	0	1	down	no
Q8BY98	0	0	1	down	no
Q8C0J6	0	0	1	down	no
A0A0U1RQ74	0	0	1	down	no
Q8C0X7	0	0	1	down	no
Q8C134	0	0	1	down	no
Q8C586	0	0	1	down	no
Q8C7H1	0	0	1	down	no
Q8CDU5	0	0	1	down	no
A0A140LHU0	0	0	1	down	no
Q8CFJ9	0	0	1	down	no
A0A140LIA4	0	0	1	down	no
Q8K0V2	0	0	1	down	no
Q8K2Q9	0	0	1	down	no
A0A140LIV1	0	0	1	down	no
A0A140LJ30	0	0	1	down	no
Q8R349	0	0	1	down	no
Q8R5A6	0	0	1	down	no
Q8VEH5	0	0	1	down	no
Q91X88	0	0	1	down	no
Q91XD2	0	0	1	down	no
Q920A7	0	0	1	down	no
A0A171EBL2	0	0	1	down	no
Q99JG3	0	0	1	down	no
Q99KR6	0	0	1	down	no
Q99MQ4	0	0	1	down	no
A0A1B0GR19	0	0	1	down	no
Q9CPZ6	0	0	1	down	no
Q9CQD4	0	0	1	down	no
Q9CQL2	0	0	1	down	no
Q9CQN7	0	0	1	down	no
Q9CTE8	0	0	1	down	no
Q9CXW2	0	0	1	down	no
A0A1B0GRP8	0	0	1	down	no

Q9CYV5	0	0	1	down	no
Q9CZJ2	0	0	1	down	no
Q9D0G0	0	0	1	down	no
Q9D2R8	0	0	1	down	no
Q9D853	0	0	1	down	no
Q9D9D8	0	0	1	down	no
Q9D9S2	0	0	1	down	no
Q9DA83	0	0	1	down	no
Q9DBN9	0	0	1	down	no
Q9ERZ0	0	0	1	down	no
Q9JJ59	0	0	1	down	no
Q9QZN4	0	0	1	down	no
Q9R0M5	0	0	1	down	no
A0A1D5RLG4	0	0	1	down	no
Q9Z0E0	0	0	1	down	no
Q9Z0H6	0	0	1	down	no
Q9Z0L0	0	0	1	down	no
A0A1D5RLM8	0	0	1	down	no
Q9Z268	0	0	1	down	no
A0A1L1SRJ2	0	0	1	down	no
A0A1L1SRM3	0	0	1	down	no
A0A1L1SRV0	0	0	1	down	no
A0A1W2P7Q1	0	0	1	down	no
A0A1X7SB53	0	0	1	down	no
A0A1Y7VJE6	0	0	1	down	no
A0A1Y7VLX4	0	0	1	down	no
A0A1Y7VMZ0	0	0	1	down	no
A0A1Y7VN19	0	0	1	down	no
A0A286YCZ3	0	0	1	down	no
A0A2I3BPE9	0	0	1	down	no
A0A2I3BQL4	0	0	1	down	no
A0A2I3BRQ3	0	0	1	down	no
A0A087WSM1	0	0	1	down	no
A0A338P7C9	0	0	1	down	no
A0A3B2WB73	0	0	1	down	no
A0A494B923	0	0	1	down	no
A0A494B9H5	0	0	1	down	no
A0A571BDG0	0	0	1	down	no
A0A571BE60	0	0	1	down	no
A0A5F8MPP6	0	0	1	down	no
A0A6I8MX08	0	0	1	down	no
A1L366	0	0	1	down	no
A2ABQ5	0	0	1	down	no

A2ADB0	0	0	1	down	no
A2AJL3	0	0	1	down	no
A2AJP5	0	0	1	down	no
A2AKQ8	0	0	1	down	no
A2AKW0	0	0	1	down	no
A2AQJ8	0	0	1	down	no
A2RRY8	0	0	1	down	no
A6PWR1	0	0	1	down	no

Table S2: The Detailed Functional Annotation of the Proteins in C1

In order to comprehensively investigate the differences in protein expression across the three groups, we carried out a hierarchical cluster analysis based on the data from three groups (Fig. 5D). According to the data, all of the DEPs were divided into five separate clusters based on their expression patterns (Fig. 5E). Proteins in clusters 4 (C4) were up-regulated in the Que group compared to the CP group, but down-regulated in the CP group when compared to the Ctrl group. Additionally, proteins in C1 were down-regulat-

ed in the Que group compared to the CP group, but down-regulated in the CP group when compared to the Ctrl group. The total number of proteins that belonged into the C1 and C4 categories was 129, and 342 respectively. (Table S3). All of these results suggested that the quercetin's ability to upregulate protein expression in C1 while downregulating expression in C4 in the testis would allow for the variation of these two protein clusters to restore testis injury induced by CP.

Subcluster 4			
Accession	Con	Mod	Que
A0A0N4SV29	1.122802682	-1.306039242	0.183236559
Q6NSR5	0.06252857	-1.254811437	1.192282867
A0A0N4SV23	0.223118456	-1.320965535	1.097847079
Q8K0Z7	0.495872859	-1.394924913	0.899052054
A0A087WPF9	0.28522945	-1.34219095	1.056961501
A0A494BAX5	1.020073078	-1.358321978	0.3382489
A0A1B0GR60	0.251438548	-1.330951199	1.079512651
D3YWB8	0.831909124	-1.406381443	0.574472319
Q9CVB6	1.066382153	-1.337629905	0.271247752
P52019	0.826370783	-1.407083524	0.580712741
Q6PJN8	0.964998511	-1.377811159	0.412812648
A0A338P7I7	0.579045118	-1.406898979	0.82785386
Q9D9D8	0.279093878	-1.340205073	1.061111196
Q9CWA5	0.227699193	-1.322615417	1.094916224
Q810Q5	0.266312433	-1.335989649	1.069677216
O88987	1.092321077	-1.324058988	0.231737911
Q922B1	0.521991527	-1.399259193	0.877267666
Q9WTI7	1.241864379	-1.206875573	-0.034988807
A0A0U1RNK6	1.281967604	-1.158109798	-0.123857806
A0A3Q4EG54	1.233810786	-1.215473024	-0.018337762
Q06770	0.78294384	-1.411397999	0.628454159
H9LAN6	0.917702372	-1.390713175	0.473010803
Q3TIU7	1.325095856	-1.090438954	-0.234656902
Q9CZX0	0.212495655	-1.317088113	1.104592458

Q9CZX7	1.270719403	-1.172904257	-0.097815145
E9Q3Q6	0.134674127	-1.286515951	1.151841824
Q91X88	0.536907971	-1.40150181	0.864593839
Q99KR6	0.91993353	-1.390177346	0.470243816
A0A338P6B7	0.304422033	-1.348244218	1.043822185
D3YXD2	0.811326264	-1.408814302	0.597488038
A0A0G2JGN6	0.017834457	-1.233564708	1.215730251
A3KGU5	0.417494475	-1.378906959	0.961412483
A0A217FL49	0.815233839	-1.408389292	0.593155452
Q9JLB9	0.207585819	-1.315271797	1.107685978
Q3THH1	1.310908961	-1.114952329	-0.195956632
A0A6I8MWZ8	0.279862865	-1.340455311	1.060592446
Q8R5A6	0.733294078	-1.413886193	0.680592116
E9QK36	1.104214314	-1.317308478	0.213094164
Q99JG3	0.745628309	-1.41350086	0.667872551
P16460	0.073174778	-1.259691673	1.186516895
B2RWW2	0.745475016	-1.413506575	0.668031559
A2AL85	0.234297414	-1.324968454	1.09067104
A2ACG7	1.236088003	-1.213077476	-0.023010527
E9PZM4	0.516865145	-1.398449159	0.881584014
A0A1B0GRP8	0.685034396	-1.41398624	0.728951843
F8VQ03	0.943597817	-1.384058395	0.440460577
B1AY13	1.237329112	-1.211760249	-0.025568863
A0A1L7NR63	0.829324787	-1.40671345	0.577388663
A0A1Y7VIW8	1.006712516	-1.363529167	0.35681665
D3Z6P9	1.359307489	-1.01760694	-0.341700549
Q00422	0.048605484	-1.248324037	1.199718553
A0A494BBL5	0.965672365	-1.377603003	0.411930638
Q9CZC8	0.42415262	-1.380438804	0.956286183
Q8VCU0	0.865645684	-1.401323313	0.535677629
A2ALR9	0.531397561	-1.400693263	0.869295702
A0A0G2JFU3	1.310387407	-1.11580594	-0.194581467
P27048	1.254352281	-1.192817606	-0.061534675
Q5SWT3	0.390027947	-1.372260188	0.982232241
A0A140LIU8	0.692505788	-1.414113747	0.721607958
P24668	0.133709694	-1.286113346	1.152403652
Q5M8S2	1.01957729	-1.358521001	0.338943712
Q99JF5	0.501278004	-1.395863989	0.894585986
E9PUA2	0.296523756	-1.345782336	1.04925858
E9PX70	0.401602895	-1.375125226	0.973522331
A0A1S6GWG7	1.309522798	-1.117214134	-0.192308664
E9Q3A0	0.848912544	-1.404002401	0.555089857
F6R587	0.85399002	-1.403225405	0.549235385

Q3URM4	0.807605415	-1.409203185	0.60159777
E9QLE5	1.358068999	-1.020701656	-0.337367343
Q8K3I8	1.006278045	-1.36369313	0.357415085
F8QZ85	1.05659776	-1.3423633	0.28576554
A0A0N4SWA2	0.054054366	-1.25087709	1.196822724
P63085	0.829798878	-1.406653121	0.576854243
A0A1B0GRU3	0.830861455	-1.406516966	0.575655511
Q99JP7	1.218114779	-1.231269	0.013154221
Q91YJ5	0.192174679	-1.309471726	1.117297047
Q3UGP8	0.438940681	-1.383729035	0.944788355
B2RX00	0.271529443	-1.337723049	1.066193606
Q99LZ3	0.767902697	-1.41241821	0.644515513
Q8CGW4	0.944442022	-1.383825064	0.439383042
Q61391	0.576372366	-1.406598527	0.830226162
A0A0G2JFT8	0.868645403	-1.400806728	0.532161325
Q8K4K6	0.652192141	-1.412826975	0.760634834
Q7TSG5	1.327476606	-1.086058555	-0.241418051
Q5SWU9	0.768845922	-1.41236117	0.643515248
B1ATV4	1.15194175	-1.286444417	0.134502666
Q922S5	1.185855901	-1.260242971	0.07438707
A0A0R4J047	0.129713829	-1.284439114	1.154725286
A0A1S6GWH1	0.827267705	-1.406972218	0.579704513
Q3U7G3	1.05352676	-1.343807457	0.290280697
Q5SSW2	1.28295148	-1.156768496	-0.126182984
Q8QZV7	1.025440557	-1.356138175	0.330697619
Q80Y84	0.627187484	-1.411308138	0.784120654
Q3TC98	0.781611529	-1.411497963	0.629886434
Q8C9M6	1.02870238	-1.354784745	0.326082365
A0A087WRM2	0.652528852	-1.412843725	0.760314873
P62267	0.518647493	-1.39873306	0.880085567
G3UVV4	1.366068598	-0.999881959	-0.366186638
Q3TN29	1.317005909	-1.104733362	-0.212272547
A0A338P6G0	1.159347234	-1.28105475	0.121707516
Q921M7	0.590346376	-1.408105516	0.817759141
D3YWF8	0.382161927	-1.370260422	0.988098496
B1AR39	1.151987729	-1.286411491	0.134423763
B1AU43	1.322020381	-1.095977527	-0.226042855
A2AI92	1.059814323	-1.3408296	0.281015277
B1AT32	0.067072837	-1.256903054	1.189830218
Q9D9V9	1.33575722	-1.070140324	-0.265616896
Q3UVG3	0.567532856	-1.405564023	0.838031167
A0A0J9YTV5	0.850205566	-1.403807474	0.553601908
P17809	0.846727617	-1.404327242	0.557599624

Q922F4	0.654211021	-1.412925917	0.758714896
P12970	-0.10494727	-1.168894268	1.273841537
O09130	1.28881428	-1.148607808	-0.140206473
O35344	0.334063659	-1.357116324	1.023052665
O35345	1.088317865	-1.326254303	0.237936439
Q9D1E5	0.355685557	-1.3632186	1.007533043
A2AQJ8	-0.003127142	-1.223178306	1.226305448
Q91YD3	0.882554817	-1.398263692	0.515708875
A0A3Q4EGC9	0.078519983	-1.262115649	1.183595666
Q9JJB1	1.269042576	-1.175028647	-0.094013929
Q3UGR5	0.020431165	-1.234832635	1.21440147
Q80SY6	0.800168865	-1.40993459	0.609765726
P70190	1.354037463	-1.030482891	-0.323554572
O88792	-0.071448335	-1.187456666	1.258905001
Q4KKZ1	0.969241987	-1.376488404	0.407246417
F6UP77	-0.142224505	-1.147423402	1.289647908
P24270	0.911017136	-1.392277394	0.481260258
A0A1B0GSM1	1.03894051	-1.350404646	0.311464137
Q60692	0.460736937	-1.388293814	0.927556877
A0A0R4J0B2	1.370854192	-0.986374082	-0.384480111
A0A0R4J0B4	0.468438439	-1.38982472	0.92138628
Q9QZ59	1.314227177	-1.109446646	-0.204780531
Q62348	0.897256149	-1.395305714	0.498049565
A2AG22	0.786641329	-1.411110704	0.624469375
A0A2I3BS41	0.631286806	-1.411594007	0.780307201
B2RWE8	0.021051223	-1.235134788	1.214083565
E0CX19	1.211327737	-1.237734937	0.0264072
G5E885	0.665202682	-1.413401528	0.748198846
F6S1B5	1.298403906	-1.134599185	-0.163804721
Q9D898	0.585745966	-1.407626879	0.821880912
A0A1L1SS02	0.698283148	-1.414177012	0.715893864
A0A1W2P6X8	0.930615103	-1.387515038	0.456899935
D3Z0X3	0.890617047	-1.396676463	0.506059416
G3X9W3	1.3182135	-1.102654805	-0.215558695
A2AT02	0.423736165	-1.380343905	0.95660774
A0A1L1SST5	0.65439743	-1.412934872	0.758537442
A0A0N5E9G7	1.051003819	-1.344979322	0.293975503
Q91Y44	0.932360098	-1.38706467	0.454704573
A0A494BAJ6	1.022802733	-1.357218088	0.334415355
P70296	1.319748991	-1.099984654	-0.219764337
G3X937	1.34437443	-1.052309621	-0.29206481
P62340	0.887357066	-1.397328405	0.509971339
B2RRE2	0.593962071	-1.408469584	0.814507513

Q9DAA4	1.275939711	-1.166158638	-0.109781073
E9Q586	0.259202384	-1.333598947	1.074396563
P50543	0.295156358	-1.345351965	1.050195608
E9QLT0	0.684258761	-1.413970069	0.729711308
Q9DBY8	1.333659633	-1.074277957	-0.259381677
Q9D9W0	0.480564622	-1.392147422	0.9115828
Q8CHH7	0.182019948	-1.305568146	1.123548198
A0A1Y7VMZ0	0.001859958	-1.225673791	1.223813833
A0A1S6GWK0	0.357191921	-1.363632014	1.006440093
Q80ZU5	1.279477998	-1.161468852	-0.118009147
Q6ZQF0	1.144459766	-1.291715035	0.147255269
A0A494BA20	0.361394722	-1.364777338	1.003382615
D3Z184	1.283372426	-1.156192201	-0.127180225
Q9JJ94	0.989307764	-1.369841068	0.380533304
B2RY71	0.658009882	-1.413102375	0.755092493
B9EI20	1.295894864	-1.138347653	-0.157547211
Q3TN15	0.655076586	-1.41296724	0.757890654
Q9Z2L7	0.590354186	-1.408106314	0.817752128
D3Z6W7	1.010960225	-1.361908491	0.350948267
Q9D3S3	0.525270156	-1.399766754	0.874496598
P55096	1.283860415	-1.155522289	-0.128338126
Q7TPS3	0.374328498	-1.36822675	0.993898252
Q569U9	1.285856442	-1.152761437	-0.133095005
D3Z030	1.293498609	-1.141871524	-0.151627085
Q9D9S2	0.306348342	-1.34883843	1.042490088
B2CSK2	0.74789117	-1.413413766	0.665522596
A0A1D5RMD1	1.169197738	-1.273607205	0.104409468
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P52795	0.997880354	-1.366797366	0.368917012
A0A1D5RLL5	0.932717687	-1.386971839	0.454254152
Q80VT5	1.266491155	-1.178222747	-0.088268408
F8WIB1	1.31843286	-1.102275225	-0.216157635
Q3UDK1	-0.058387414	-1.194506903	1.252894317
Q80TR8	0.972408979	-1.375482614	0.403073636
P32037	1.366234722	-0.999427358	-0.366807364
A2A4A6	0.753388464	-1.413180781	0.659792318
Q9D4H1	0.11387542	-1.277705621	1.163830201
A2AKH7	0.953332291	-1.381303176	0.427970886
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Q99KG3	0.821062649	-1.40772343	0.586660781
E9PUB7	1.26516736	-1.179862095	-0.085305266
G3UXZ2	0.734447928	-1.413856507	0.67940858
P62137	0.837842949	-1.405589805	0.567746856

P70670	0.372161086	-1.367656649	0.995495564
Q3UEG9	1.152644965	-1.285940118	0.133295153
A2AQAA7	0.992236739	-1.368815161	0.376578423
Q9ERZ0	-0.013074152	-1.218155457	1.231229609
Q6X6Z7	0.950788168	-1.38203701	0.431248841
A0A1D5RLK4	1.080516097	-1.330424944	0.249908847
P21614	-0.127946623	-1.155748889	1.283695512
Q8C165	1.194514302	-1.252887906	0.058373604
Q6RI63	0.630371348	-1.41153141	0.781160062
D3Z6J3	1.047632956	-1.346524745	0.298891788
A0A0G2JEG0	0.756961813	-1.41301298	0.656051167
Q8R059	-0.074016209	-1.186058207	1.260074415
Q3UZQ3	0.313864939	-1.351133709	1.03726877
Q8BHB4	0.160139767	-1.296937354	1.136797587
Q9D6S7	0.707571933	-1.41421346	0.706641527
Q8C4J7	1.027625557	-1.355233771	0.327608214
Q9D2E9	0.289792442	-1.343651932	1.05385949
Q9D4I8	1.100064008	-1.319703612	0.219639603
A0A171EBK9	1.018668388	-1.358884685	0.340216297
P48722	1.01090496	-1.361929784	0.351024824
E9QNV2	1.352914919	-1.033130862	-0.319784057
Q8BZY3	0.229544772	-1.323276378	1.093731606
Q91W18	0.428837035	-1.38149782	0.952660785
P09411	1.300357596	-1.131637614	-0.168719982
P59235	1.255042885	-1.192012822	-0.063030063
E9Q4U7	0.750985291	-1.413286372	0.662301081
A0A0H2UH22	0.316433071	-1.35190937	1.0354763
F8WIT2	0.438084702	-1.383542821	0.945458119
A0A494BAQ9	1.349442978	-1.041126643	-0.308316336
G3X8P9	0.410046592	-1.377156541	0.967109949
P67778	0.704689691	-1.414210811	0.709521121
Q8BHA3	0.052443406	-1.250124178	1.197680771
A0A571BEG0	0.625462143	-1.411183542	0.7857214
C6EQH5	0.174366019	-1.302583096	1.128217076
A0A0R4J0X4	0.668055828	-1.413507445	0.745451618
A0A087WQF7	0.783116058	-1.411384941	0.628268883
P62331	1.303589593	-1.126653333	-0.17693626
Q8C586	0.712546222	-1.414199579	0.701653356
A0A171KXD3	0.125092665	-1.28249054	1.157397875
A0A2X0SFE2	0.999893956	-1.366064209	0.366170253
Q9DAS2	1.352570596	-1.033936786	-0.318633811
Q9CQ65	1.101471351	-1.318896236	0.217424885
Q8C0Y0	0.952852849	-1.381442218	0.428589369

Q3TW96	0.886393055	-1.397518546	0.511125491
A0A1W2P756	0.873646662	-1.399920487	0.526273826
A0A1L1SV25	0.351994276	-1.36219907	1.010204793
A0A0B4J1E9	0.896354834	-1.395495214	0.49914038
A2AE98	0.138042181	-1.287917422	1.149875241
G3UYX5	0.978327461	-1.373559872	0.39523241
Q925E7	0.911757154	-1.392107272	0.480350118
Q8BGR9	1.131844671	-1.300221819	0.168377148
Q80SW1	0.569612241	-1.405812999	0.836200758
Q8VCS6	0.776018498	-1.411897167	0.635878668
A0A1B0GRA5	1.175177388	-1.268924573	0.093747185
D3Z1F2	0.982488109	-1.372174152	0.389686044
B2RT02	1.356658383	-1.024173846	-0.332484537
A0A5F8MPP6	0.52488122	-1.399706972	0.874825752
Q3V030	0.450026094	-1.386093314	0.93606722
Q9D024	0.862161709	-1.40190931	0.539747601
Q3TZ32	-0.02296032	-1.213103287	1.236063606
Q3TI61	1.360763992	-1.013910134	-0.346853858
Q8BVN8	1.030935248	-1.353846647	0.322911398
A0A3B2WB73	0.604224763	-1.409444458	0.805219694
Q3TDF8	0.945911788	-1.383416309	0.437504521
F6TVP2	0.216541018	-1.318573153	1.102032136
A2RRK3	0.658812214	-1.413138016	0.754325802
E9Q717	0.886234484	-1.397549707	0.511315223
Q8C134	0.253087485	-1.331516789	1.078429305
Q8R3F5	1.285801299	-1.15283816	-0.132963139
D3YV99	0.5112353	-1.397536584	0.886301284
A0A2R8VHH1	1.189004912	-1.257601611	0.0685967
A0A1W2P7J9	-0.021971518	-1.213611293	1.235582811
Q80SX7	0.709294521	-1.414211304	0.704916783
Q80U19	1.18409197	-1.261706089	0.077614118
Q9WV55	0.529804727	-1.400455186	0.870650459
F8VPP8	0.545447669	-1.402708405	0.857260736
Q9QZN4	0.64424633	-1.412402946	0.768156615
Q8C2E7	0.513910066	-1.397973145	0.88406308
Q9DAP0	0.094481995	-1.269249534	1.17476754
A0A087WRE9	0.191291091	-1.309134643	1.117843552
Q14CH7	0.022014883	-1.235603909	1.213589026
A0A3B2W8B4	1.363770109	-1.00607376	-0.357696349
A0A1L1ST33	0.607851963	-1.409768192	0.801916228
B0R029	1.088929613	-1.325921282	0.23699167
Q9CYJ6	0.37890582	-1.369420191	0.990514371
A0A140LJ55	1.281459176	-1.158799839	-0.122659337

P31230	0.61082151	-1.410025082	0.799203573
D3YWN5	1.239798558	-1.209114563	-0.030683995
A0A140LHL5	0.580144724	-1.407020917	0.826876193
A2A9H6	0.425019192	-1.38063588	0.955616688
Q6ZPE2	0.880759799	-1.398605673	0.517845873
E5RKB6	1.006145091	-1.363743239	0.357598148
B1AWG4	1.32851733	-1.084117305	-0.244400026
Q8BPS4	0.99915575	-1.366333804	0.367178055
P62918	-0.115158127	-1.163098598	1.278256726
A1A540	0.947702011	-1.38291408	0.43521207
Q6PE84	0.920968235	-1.389926495	0.46895826
A0A571BF43	0.98712268	-1.370597035	0.383474355
O88502	0.770206157	-1.412277288	0.642071131
O89053	0.017369996	-1.233337485	1.215967488
P18654	1.30060939	-1.131253145	-0.169356245
F6X4L9	0.741637162	-1.413642027	0.672004865
A7VL18	-0.093144409	-1.175513345	1.268657754
Q8C7H1	0.641097414	-1.41221971	0.771122297
Q2TK26	0.67220693	-1.413648537	0.741441607
A2AJP5	0.513156137	-1.397850641	0.884694504
Q6PCM2	0.869404273	-1.400674267	0.531269995
A0A1X7SB53	0.523489533	-1.399492116	0.876002583
A0A1Y7VLP0	1.020677339	-1.358078799	0.33740146
A4FUU4	0.833011578	-1.406237461	0.573225883
A0A1Y7VNZ6	0.063313197	-1.255173488	1.191860291
F6TCV0	1.290502975	-1.146202138	-0.144300837
P11440	0.700132289	-1.414190707	0.714058418
A0A1B0GS10	1.127104524	-1.303299884	0.176195359
Q14CG3	1.112593214	-1.312340425	0.199747212
Q3TBV3	0.820136885	-1.40783175	0.587694865
A0A075B5P5	1.084458372	-1.328335114	0.243876742
Q8BH35	0.167827328	-1.300003912	1.132176584
Q8K2Q9	0.552850765	-1.40370841	0.850857645
Q69Z43	0.227641279	-1.322594641	1.094953362
Q80YT3	1.135238979	-1.297978542	0.162739564
A2AVJ7	0.47581754	-1.391250979	0.915433439
Q3TL58	0.707613198	-1.414213442	0.706600243
A0A0R4J0J5	1.185359062	-1.260656268	0.075297206
A3KGW0	1.142171581	-1.293292866	0.151121285
B8JJB2	-0.054170985	-1.196760547	1.250931532
Q3U896	1.026927214	-1.355523803	0.328596589
A0A068BD58	0.663254552	-1.413325039	0.750070487
A0A0U1RPF2	0.180111954	-1.304827463	1.124715509

Q5XK33	0.167280433	-1.299786977	1.132506544
A0A0G2JEL6	1.203090144	-1.2453079	0.042217756
F8VPR1	0.393715486	-1.37318299	0.979467504
P58389	0.636686245	-1.411948613	0.775262368
E0CZE0	0.212225923	-1.316988727	1.104762803
E0CX98	-0.064314364	-1.191320544	1.255634908
A0A0R4J140	0.698438527	-1.414178285	0.715739758
Q8VEH6	1.272422949	-1.170725159	-0.101697791
H7BX88	1.038473578	-1.35060883	0.312135253
P97434	0.740797175	-1.413669722	0.672872546
A0A0J9YU88	0.368862051	-1.366782746	0.997920695
Q80W93	-0.00958743	-1.219923012	1.229510442
B2KF24	0.919248014	-1.390342717	0.471094703
A0A140LHG8	0.021989217	-1.235591422	1.213602205
G3UW57	1.254119978	-1.193087648	-0.06103233
A0A140LHG7	-0.010877642	-1.219269821	1.230147463
A0A1B0GRR3	0.369026914	-1.366826593	0.997799679
Subcluster 1			
Accession	Con	Mod	Que
Q8C0S4	0.307004159	1.042036015	-1.349040174
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Q922B5	-0.253014256	1.331491709	-1.078477453
Q78PG9	0.085968968	1.179495374	-1.265464342
A0A0R4J048	-0.443026623	1.38461071	-0.941584087
Q8C8R9	0.199736987	1.112599589	-1.312336576
Q3TBZ6	0.277699826	1.062050626	-1.339750452
A2RSG8	0.28053199	1.06014075	-1.340672739
O35490	-0.044945366	1.246598876	-1.20165351
A0A1L1SRC3	0.244390984	1.0841232	-1.328514183
G3X9Z0	0.376365965	0.992393781	-1.368759746
Q14DK4	0.110752798	1.16560696	-1.276359758
E9QLK3	0.318319847	1.034156613	-1.35247646
Q9D4R2	-0.027637313	1.238329634	-1.210692321
Q8C8M9	-0.118109536	1.27952091	-1.161411374
Q6ZWY7	0.23992837	1.087026197	-1.326954567
Q3URN2	0.237167999	1.088815481	-1.32598348
Q8JZP9	0.044280196	1.202004276	-1.246284472
Q0EEE2	0.187025408	1.120474991	-1.307500398
A0A0N4SW77	0.326345986	1.028516448	-1.354862434
A0A0A0MQ89	0.219631185	1.100069364	-1.319700549
Q91X72	0.040139302	1.204181805	-1.244321107
A0A0G2JGQ4	0.30375729	1.044281308	-1.348038597
Q8CGF7	0.276172231	1.0630786	-1.339250831

P17918	-0.01658394	1.232952629	-1.216368689
A0A213BQV5	-0.17305926	1.302069786	-1.129010525
A0A0G2JDE8	0.07872869	1.183481248	-1.262209938
Q8JZS2	0.069629062	1.188444986	-1.258074048
A0A455R725	0.197724985	1.1138529	-1.311577885
Q05BY0	0.06785439	1.189407116	-1.257261506
Q06138	0.215419738	1.102742837	-1.318162574
B1AR28	-0.518853962	1.398765791	-0.879911829
G3X8X0	-0.096531571	1.270154177	-1.173622606
A0A1L1SQA8	0.293879788	1.051069289	-1.344949077
A0A0J9YVG0	0.00382296	1.222828917	-1.226651876
Q8C2C6	0.132399879	1.153165758	-1.285565637
Q3TFA9	-0.518995096	1.398788147	-0.87979305
Q3U7M5	-0.139196776	1.288396235	-1.14919946
D9J2Z9	-0.544973424	1.402642885	-0.857669461
E9Q5L3	-0.533298183	1.400974788	-0.867676605
A0A1S6GWI6	0.139045173	1.14928824	-1.288333413
Q3TFP0	0.244723632	1.083906296	-1.328629928
Q91ZA3	0.312346672	1.03832642	-1.350673092
B2RUG3	-0.221244631	1.320286777	-1.099042147
O35125	-0.446316585	1.385311953	-0.938995368
P51150	-0.036844285	1.242751295	-1.20590701
Q05DI7	0.075861659	1.185050673	-1.260912333
A2BFF5	0.128207421	1.155597951	-1.283805372
Q8K4I7	-0.401372882	1.375069197	-0.973696315
Q9CQJ2	0.057067484	1.195213567	-1.252281051
A0A1S6GWJ8	-0.341766474	1.359326234	-1.017559761
Q6NWV5	0.033449021	1.207677741	-1.241126761
P16381	-0.090118009	1.26731473	-1.177196721
O55023	-0.009076962	1.229258125	-1.220181163
O35945	-0.007510023	1.228482614	-1.220972591
A0A1W2P7H9	0.014277438	1.217543736	-1.231821174
A2AVQ9	-0.022704283	1.235939168	-1.213234886
Q99MW5	-0.257406445	1.332989917	-1.075583472
Q7TPD5	-0.154830655	1.294798012	-1.139967357
Q9QYF1	0.075817977	1.185074546	-1.260892523
B2RUF0	-0.445641934	1.385168785	-0.939526851
A0A338P7C0	0.212210828	1.104772335	-1.316983163
Q61586	-0.167695537	1.299951652	-1.132256115
Q3TRW3	0.325388871	1.029191282	-1.354580152
A0A1L1SRK1	-0.375028609	1.368410217	-0.993381608
D3YXB7	0.001430722	1.224028884	-1.225459606
Q62210	-0.216781707	1.318661182	-1.101879476

A0A0G2JGF7	0.172877284	1.129120934	-1.301998218
A0A286YDT6	-0.513494353	1.39790565	-0.884411297
P35564	0.119091152	1.160849021	-1.279940173
O70493	-0.124913388	1.282414678	-1.157501291
Q9D2H8	-0.040245386	1.244371537	-1.204126151
A0A3B2WCD8	0.030462878	1.209229263	-1.23969214
Q69ZR9	-0.038418822	1.243502266	-1.205083445
G3UXH4	0.154447622	1.140195365	-1.294642987
Q8CHX7	0.198180418	1.113569426	-1.311749845
A0A286YD22	-0.487069166	1.393348794	-0.906279628
D3YZ06	0.044043592	1.20212898	-1.246172572
Q05CL8	0.178341871	1.125796403	-1.304138274
Q9QZM0	-0.27290197	1.338176156	-1.065274186
Q8CDV3	0.201094256	1.11175268	-1.312846936
Q8K410	0.053066526	1.197349067	-1.250415593
Q9DBG7	-0.238573653	1.326478592	-1.087904939
Q9JM62	-0.273267455	1.338296606	-1.065029151
E9PYH2	0.222483689	1.098252164	-1.320735853
Q9D8B3	-0.389263782	1.372067784	-0.982804001
Q91VZ1	0.078740015	1.183475039	-1.262215054
D3Z125	0.002404061	1.223541071	-1.225945132
Q3UDM0	0.279182027	1.061051751	-1.340233777
Q8C297	-0.429820285	1.381718135	-0.95189785
P97351	0.370673784	0.996589802	-1.367263586
Q9EQH2	0.381141095	0.988856686	-1.369997781
Q8K1S6	-0.278679384	1.340070033	-1.061390649
Q80UW8	-0.116359932	1.278772148	-1.162412216
H3BLJ6	-0.162071466	1.29771138	-1.135639914
P00015	-0.30782315	1.349291716	-1.041468566
Q8K297	-0.122607078	1.281436986	-1.158829908
Q8VGK8	-0.574509421	1.40638571	-0.831876289
Q9CQ75	0.391989813	0.980762499	-1.372752311
A0A0G2JGT5	-0.156454046	1.295454035	-1.138999989
A0A087WSP5	-0.420750262	1.379659918	-0.958909656
A0A3B2W887	0.073237125	1.186482923	-1.259720048
O08582	-0.494778582	1.394732141	-0.899953559
Q8CIA5	-0.108678012	1.275462185	-1.166784173
A0A1B0GX81	-0.00434018	1.226909194	-1.222569014
E9QAQ5	-0.336565383	1.35783841	-1.021273027
Q45VK7	-0.29864434	1.346447338	-1.047802998
Q6PER3	-0.554681007	1.403949014	-0.849268007
Q9CRB2	-0.24004311	1.326994827	-1.086951717
Q8BWE1	0.308575592	1.040946837	-1.349522429

Q61646	-0.326925531	1.355033063	-1.028107532
B2RUN1	0.072022102	1.187144545	-1.259166647
Q3V016	0.09867589	1.172421975	-1.271097865
A0A0J9YUD5	0.016772608	1.216272428	-1.233045036
A0A087WR97	0.245253366	1.083560736	-1.328814102
A0A1W2P7G8	0.32935074	1.026393926	-1.355744666
Q9D5A0	0.206835175	1.108157589	-1.314992764
Q8CBQ5	0.251793776	1.079279415	-1.331073191
Q8BG40	-0.123671732	1.281888724	-1.158216992
Q6TEK5	0.197173594	1.114195925	-1.311369519
Q7TSC1	-0.157651588	1.295936916	-1.138285328
A0A0R4J0V4	-0.412534971	1.377745686	-0.965210715
A0A286YDL9	0.36976517	0.997257546	-1.367022716
E9QAS8	-0.040780139	1.244625641	-1.203845502
Q9D0T1	0.309881345	1.040040567	-1.349921913
Q8K0T2	0.233633187	1.09109965	-1.324732837
P48794	-0.244861578	1.328677905	-1.083816327
P62257	-0.084996991	1.265029327	-1.180032336
Q3TF87	-0.506632815	1.396772744	-0.890139929

Table S3: The Detailed Functional Annotation of the Proteins in C4

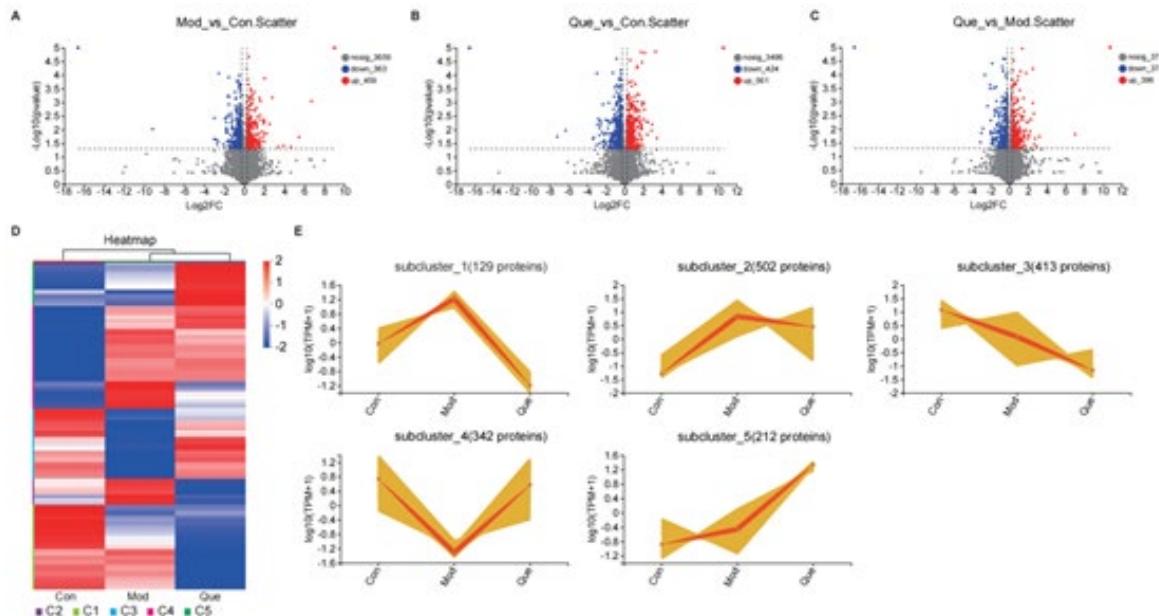


Figure 5: Changes in the Expression Profiles of Genes in the Testis of Ctrl, Mod, and Que Groups

(A) Volcano map showing the DEGs of “Mod vs. Con”. (B) Volcano map showing the DEGs of “Que vs. Con”. (C) Volcano map showing the DEGs of “Que vs. Mod”. (D) The heat map of DEPs in three groups. (E) The sub cluster trend graph of DEPs.

3.5 Functional Annotation Analysis of DEPs from Ctrl, CP, and Que Mice's Testis

In order to understand the molecular basis of quercetin relieving testis injury caused by CP in mice, the GO annotation and KEGG enrichment in C1 and C4 were examined. For the annotation of C1, the main significantly enriched GO terms of the biological process (BP) included cell differentiation, lipid metabolic process, RNA splicing, regulation of cell cycle, mRNA processing, intracellular signal transduction, proteolysis, cell cycle, cytoplasm, nucleus, cytosol, nucleoplasm, and mitochondrion were the main enriched GO terms of molecular function (MF). Moreover, the main representative GO terms of the cellular component (CC) were protein binding, identical protein binding, RNA bind-

ing, hydrolase activity, and nucleotide binding (Fig. 6A). For the annotation of C4, protein binding, identical protein binding, RNA binding, hydrolase activity, nucleotide binding were the most enriched GO terms (Fig. 6B).

The enriched KEGG pathways in C1 involved in Apoptosis - multiple species, Apoptosis - multiple species, Metabolic pathways, Hippo signaling pathway, mTOR signaling pathway, and Necroptosis (Fig. 6C). KEGG pathway annotation indicated that proteins in C4 were mostly involved in Protein processing in endoplasmic reticulum, Metabolic pathways, Proteasome, Nucleocytoplasmonic transport, and HIF-1 signaling pathway (Fig. 6D).

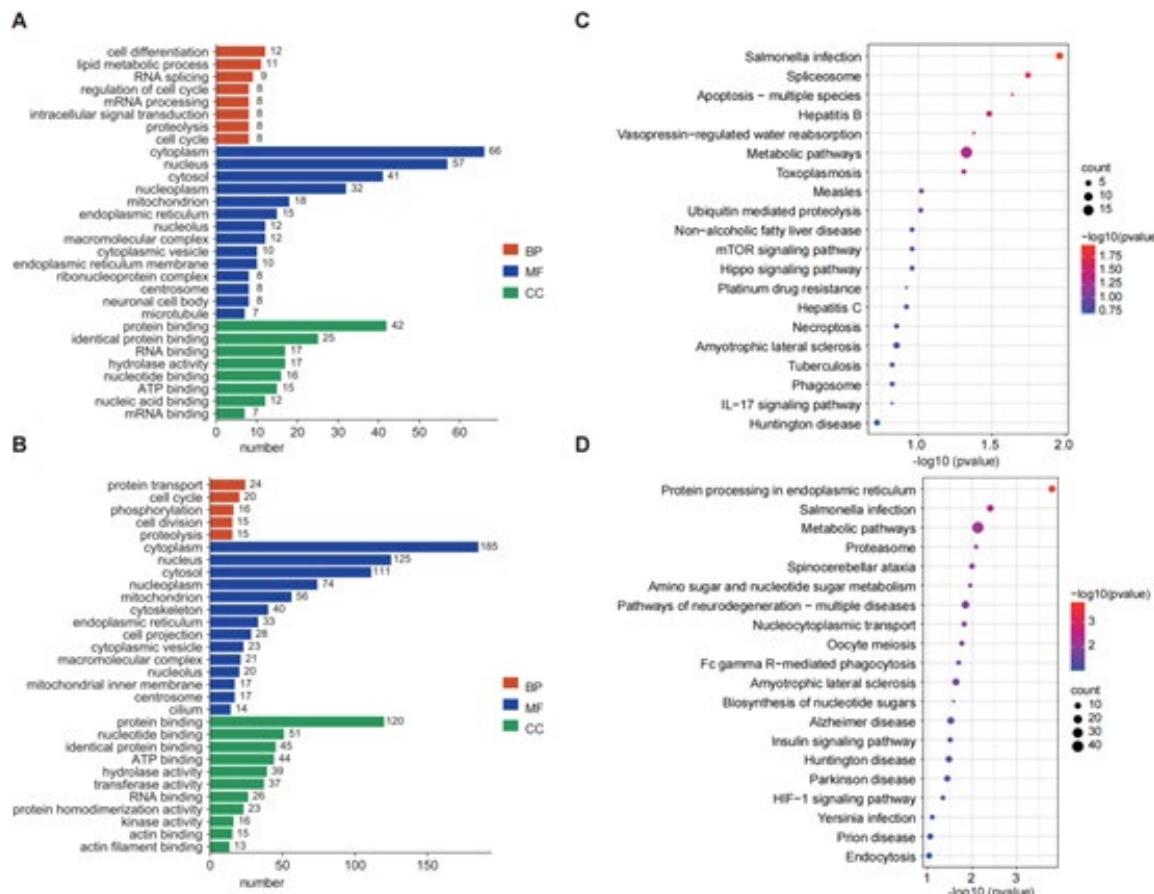


Figure 6: Gene Ontology (GO) Annotation and Kyoto Encyclopedia of Genes and Genomes (KEGG) Pathway Enrichment Analysis (A) The GO annotation of C1. (B) The GO annotation of C4. (C) The KEGG pathway enrichment analysis of C1. (D) The KEGG pathway enrichment analysis of C4.

3.6 Protein-Protein Interaction (PPI) Network of the DEPs in C1, and C4

To further, recognize the hub proteins, modulated by CP and quercetin in the mouse testis, DEPs of C1 and C4 in the mouse testis were analyzed to create PPI (protein-protein interacted) networks using STRING database. The results showed that the PPI enrichment p-value in C1 and C4 were 0.00344 and 0.000559, respectively. The average local clustering coefficient in C1 and C4 were 0.388 and 0.343 respectively, indicating that these DEPs had sig-

nificant interaction connections. A total of 58 nodes and 72 edges were obtained in C1 (Fig. 7A). Using the MCC algorithm in Cytoscape software's CytoHubba plugin to screen out the top 10 nodes, namely potentially hub genes, which are Gsk3b, Eif4e, Hspb1, Casp8, Hnrnppm, Tardbp, Xpo7, Polr2e, Rps6ka2, and Erh (Fig. 7A, Table 1). Then, KEGG function enrichment analysis showed that mTOR signaling pathway was the most enrichment, which the corresponding genes were Gsk3b, Eif4e, and Rps6ka2 (Fig. 7B). Moreover, there were 165 nodes and 260 edges in C4, and

10 genes (*Rps23*, *Rpl8*, *Rps11*, *Mrps35*, *Mrrf*, *Hspbp1*, *Mrpl46*, *Mtif2*, *Mrps27*, and *Mrps17*) were selected as potentially key genes using CytoHubba (Fig. 7C, Table 2). KEGG pathway analysis revealed that Ribosome was the top signaling pathways with

high enrichment scores, mapping the gene of *Rps23*, *Rpl8*, *Rps11*, and *Mrps17* (Fig. 7D). Thus, quercetin exerted a testicular protective effect via down-regulating mTOR signaling pathway and up-regulating Ribosome.

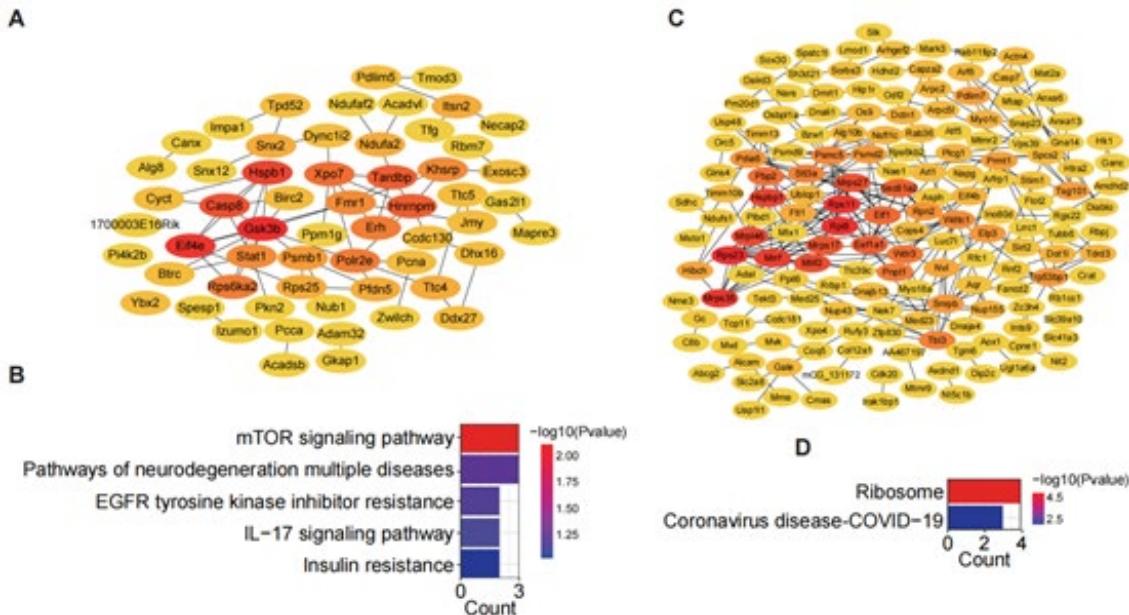


Figure 7: Selection of Hub DEPs and Pathways

(A) The PPI network of DEPs in C1. (B)The KEGG pathway enrichment analysis of hub genes in C1. (C) The PPI network analysis of DEPs in C4. (D) The KEGG pathway enrichment analysis of hub genes in C4.

4. Discussion

Cyclophosphamide was a prescription medication primarily used to treat cancer in patients [24]. Nevertheless, its widespread utilization is hampered by the significant toxicity and side effects it produces, such as reproduction toxicity in male [25,26]. The flavonoid quercetin, which is found in high concentrations in many of the fruits and vegetables that are ingested on a regular basis, is known to have a wide range of biological effects, some of which include immunoregulatory, anti-inflammatory, and antiviral qualities [27-29]. In addition to this, it prevents the oxidation of lipids, which shields cells from oxidative damage and ultimately death [30]. In the current study, adult male rats were subjected to cyclophosphamide exposure, which led to reproductive toxicity and damage to their testicles. We found that quercetin might be used as a therapy to combat these consequences caused by cyclophosphamide in the testis of mice. In addition, the expression of testicular proteins in the Ctrl group, CP group and Que group were examined using LC-MS/MS. Here, we uncovered the potential pathways and hub genes for quercetin relieving testicular injury caused by CP. Previous research has indicated that CP can cause considerable damage to the testes, resulting in decreased testicular production, lowered sperm functional competence, and impaired fertility [31-33]. Our findings corroborate those of previous studies showing that CP treatment reduces body weight, testis and epididymis index, and serum testosterone, histological evidence of injury to

the testicles, apoptosis of spermatogonia in mice. The quercetin mitigated certain CP effects, preventing changes in body weight, and the content of testosterone, and partially ameliorating relative testicular weight loss, histological damage, and reducing spermatogonia apoptosis. All these data indicate that quercetin modulates the testicular damage caused by CP in mice.

We isolated and characterized 4,485 proteins belonging to the Ctrl, CP, and Que groups, and detected 1598 DEPs among the three groups in testis. Based on cluster analysis, all DEPs were classified into five categories, two of which (C1 and C4) were regulated by cyclophosphamide and quercetin. The proteins in C1 were up regulated in the CP group when compared to the Ctrl group, but down regulated in Que group when compared to the CP group. KEGG analysis of C1 showed that these proteins were concentrated in Apoptosis - multiple species, Apoptosis - multiple species, Metabolic pathways, Hippo signaling pathway, mTOR signaling pathway, and Necroptosis. Results from the DEPs' PPI network in C1 demonstrated that *Gsk3b*, *Eif4e*, *Hspbp1*, *Casp8*, *Hnrnppm*, *Tardbp*, *Xpo7*, *Polr2e*, *Rps6ka2*, and *Erh* were the potential hub genes. Then, KEGG function enrichment analysis of these hub genes showed that mTOR signaling pathway was the most enrichment, which the corresponding genes were *Gsk3b*, *Eif4e*, and *Rps6ka2*. The mTOR signaling pathway is an extremely conserved signaling pathway that governs several physiological functions, including

cell survival, cell proliferation, autophagy and proliferation [34-37]. Precious research have highlighted that the aberrant expression of mTOR signaling pathway influenced the proliferation of spermatogonial stem cells [38]. The protein Gsk3b is crucial to male reproduction [39]. GSK3b gene is expressed in spermatids, meiotic cells, and Sertoli cells, disruption of the GSK3 gene resulting male mice infertile [40]. Researchers investigated the role of Eif4e in the development of the testes and the generation of mature sperm, which is necessary in spermatocytes for chromosomal condensation and cytokinesis throughout the meiotic stages [41]. Rps6ka2 has been linked to cell cycle progression, functioning upstream or inside many processes such as cell apoptosis, and gene expression regulation [42]. Accordingly, we speculated that quercetin protects testis injury caused by CP by inhibiting the mTOR signaling pathway via downregulation the expression of Gsk3b, Eif4e, and Rps6ka2 genes.

When compared to the Ctrl group, the level of expression of the C4 proteins was lower in the CP group, whereas in the Que group, the level of expression of the C4 proteins was higher in the CP group. KEGG analysis of C4 showed that these proteins were concentrated in Protein processing in endoplasmic reticulum, metabolic pathways, Proteasome, Nucleocytoplasmic transport, and HIF-1 signaling pathway. According to the findings of the PPI network of the differential proteins in C4, the possible hub genes include Rps23, Rpl8, Rps11, Mrps35, Mrrf, Hspbp1, Mrpl46, Mtif2, Mrps27, and Mrps17. Then, the KEGG function enrichment analysis of these hub genes revealed that the Proteasome was the most enriched, with Rps23, Rpl8, Rps11, and Mrps17 being the corresponding genes. The Proteasome is a protein-degrading machine involved in numerous key physiological activities, antigen processing for optimal immunological responses, including cell differentiation, cell cycle regulation, signal transduction pathways, apoptosis, stress signaling, and inflammatory responses. Most substrate proteins are changed by ubiquitin before being degraded by the Proteasome and it is capable of quickly and efficiently destroying a range of cellular proteins. The Proteasome is a huge protein complex that is comprised of a proteolytic core that is referred to as the 20S particle and auxiliary components that modulate its activity in a number of different ways. Previous studies have shown that acetylation of histones must be degraded during spermatogenesis, and this can only be accomplished by the Proteasome [43]. Furthermore, the testis-specific Proteasome subunit α 4s is specifically expressed in testicular tissue [44]. Thus, we suggested that quercetin slows down CP-induced testis damage by activating the Proteasome via upregulation the expression of Rps23, Rpl8, Rps11, and Mrps17 genes.

In conclusion, we used proteomic analysis to investigate the pharmacodynamic properties of quercetin in alleviating CP-induced testis injury. The main finding of this study is that quercetin protects against testis toxicity by inhibiting the expression of Gsk3b, Eif4e, and Rps6ka2 proteins in CP-induced testis damage in mice via the pathways of mTOR signaling. In contrast side, in CP-in-

duced testis injury in mice, quercetin alleviates testis toxicity via stimulating the production of Rps23, Rpl8, Rps11, and Mrps17 proteins via Proteasome pathways. These data provide credence to the hypothesis that quercetin may be beneficial in treating the testicular dysfunction caused by CP. Furthermore, our findings also have implications for future studies on the molecular mechanisms behind the use of quercetin in the treatment of male testicular dysfunction brought on by CP.

Funding

This research was funded by the Sichuan Science and Technology Program [2023NSFSC1766, 2023NSFSC1077].

Acknowledgements

Not applicable

Competing Interests

The authors declare no competing financial interests.

Data Availability Statement

The data that support the findings of this study are available in the methods and/or supplementary material of this article.

Authors' Contributions

Chunyan Fang and Yulong Ye performed the data analysis; Yadong You and Yifeng Shen performed the formal analysis; Jingyi Zhang performed the validation; Chunyan Fang and Xujun Yu wrote the manuscript.

Ethics Approval and Consent to Participate

All experimental designs and protocols involving animals were approved the Animal Care Committee at Chengdu University of Traditional Chinese Medicine. (Ethics committee approval document number: 20211204A).

Patient Consent for Publication

This study does not involve human participants.

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