Analysis Summary: Please report in publication

Analysis Type: PANTHER Overrepresentation Test (Released 20210224)

Annotation Version and Release Date: PANTHER version 16.0 Released 2020-12-01

Analyzed List: allDEgenes.txt (Homo sapiens) Change

Reference List: Homo sapiens (all genes in database) Change

Annotation Data Set: PANTHER GO-Slim Biological Process

Test Type: Fisher's Exact Binomial

Correction: Calculate False Discovery Rate Use the Bonferroni correction for multiple testing No correction

Results

	Reference list	allDEgenes.txt
Uniquely Mapped IDS:	20595 out of 20595	361 out of 361
Unmapped IDs:	0	12
Multiple mapping information:	0	0

Export Table XML with user input ids JSON with user input ids View: -- Please select a chart to display --

Displaying only results for FDR P < 0.05, click here to display all results

	Homo sapiens (REF)	allDEgenes.txt (Hierarchy NEW!)					
PANTHER GO-Slim Biological Process	#	#	expected	Fold Enrichment	+/-	raw P value	FDR
skin development	7	3	.12	24.45	+	5.56E-04	1.78E-02
intermediate filament cytoskeleton organization	13	5	.23	21.94	+	1.05E-05	8.49E-04
↳cellular component organization	2624	79	45.99	1.72	+	1.67E-06	2.03E-04
↳cellular component organization or biogenesis	2750	79	48.20	1.64	+	1.15E-05	8.62E-04
positive regulation of axonogenesis	21	7	.37	19.02	+	3.68E-07	8.04E-05
↳regulation of axonogenesis	49	10	.86	11.64	+	6.03E-08	2.63E-05
↳regulation of neuron projection development	74	10	1.30	7.71	+	1.81E-06	2.08E-04
↳regulation of plasma membrane bounded cell projection organization	89	11	1.56	7.05	+	1.23E-06	1.67E-04
↳regulation of cell projection organization	91	11	1.60	6.90	+	1.50E-06	1.92E-04
↳regulation of cellular component organization	410	20	7.19	2.78	+	6.30E-05	3.12E-03
↳regulation of neuron differentiation	85	10	1.49	6.71	+	5.60E-06	4.89E-04
↳regulation of neurogenesis	108	10	1.89	5.28	+	3.81E-05	2.13E-03
↳regulation of cell development	121	10	2.12	4.71	+	9.26E-05	4.21E-03
↳regulation of cell differentiation	167	11	2.93	3.76	+	2.74E-04	1.11E-02
↳regulation of developmental process	241	15	4.22	3.55	+	4.11E-05	2.19E-03
↳regulation of nervous system development	118	10	2.07	4.83	+	7.62E-05	3.61E-03
↳regulation of multicellular organismal development	187	12	3.28	3.66	+	1.83E-04	7.84E-03
↳regulation of multicellular organismal process	329	16	5.77	2.77	+	3.48E-04	1.33E-02
↳regulation of cell morphogenesis involved in differentiation	65	10	1.14	8.78	+	6.23E-07	1.05E-04
↳regulation of cell morphogenesis	84	11	1.47	7.47	+	7.31E-07	1.14E-04
↳regulation of anatomical structure morphogenesis	117	13	2.05	6.34	+	4.04E-07	8.02E-05
↳positive regulation of neuron projection development	30	7	.53	13.31	+	2.80E-06	3.06E-04
↳positive regulation of neuron differentiation	33	7	.58	12.10	+	4.85E-06	4.81E-04

↳positive regulation of neurogenesis	39	7	.68	10.24	+	1.28E-05	8.98E-04
↳positive regulation of cell development	46	7	.81	8.68	+	3.31E-05	1.90E-03
↳positive regulation of cell differentiation	67	7	1.17	5.96	+	2.84E-04	1.13E-02
↳positive regulation of cellular process	1295	40	22.70	1.76	+	6.62E-04	2.06E-02
↳positive regulation of biological process	1455	44	25.50	1.73	+	5.92E-04	1.87E-02
↳positive regulation of developmental process	92	9	1.61	5.58	+	6.27E-05	3.26E-03
↳positive regulation of nervous system development	43	7	.75	9.29	+	2.24E-05	1.40E-03
↳positive regulation of multicellular organismal process	118	9	2.07	4.35	+	3.60E-04	1.33E-02
↳positive regulation of cell projection organization	38	8	.67	12.01	+	1.06E-06	1.54E-04
↳positive regulation of cellular component organization	139	14	2.44	5.75	+	4.35E-07	7.90E-05
regulation of cell shape	27	8	.47	16.90	+	1.13E-07	3.07E-05
attachment of spindle microtubules to kinetochore	11	3	.19	15.56	+	1.60E-03	4.73E-02
negative regulation of cell adhesion	32	7	.56	12.48	+	4.06E-06	4.22E-04
↳regulation of cell adhesion	68	7	1.19	5.87	+	3.09E-04	1.20E-02
response to virus	40	5	.70	7.13	+	1.02E-03	3.15E-02
cell-cell junction assembly	52	6	.91	6.58	+	4.77E-04	1.58E-02
↳cell-cell junction organization	64	6	1.12	5.35	+	1.30E-03	3.94E-02
axon guidance	104	11	1.82	6.03	+	4.90E-06	4.65E-04
↳axonogenesis	140	11	2.45	4.48	+	6.38E-05	3.09E-03
↳neuron projection morphogenesis	177	11	3.10	3.55	+	4.36E-04	1.51E-02
↳plasma membrane bounded cell projection morphogenesis	178	11	3.12	3.53	+	4.56E-04	1.53E-02
↳cell projection morphogenesis	178	11	3.12	3.53	+	4.56E-04	1.55E-02
↳cell part morphogenesis	180	11	3.16	3.49	+	4.98E-04	1.62E-02
↳cellular component morphogenesis	204	11	3.58	3.08	+	1.32E-03	3.93E-02
↳anatomical structure morphogenesis	492	21	8.62	2.44	+	3.66E-04	1.33E-02
↳cell morphogenesis	241	16	4.22	3.79	+	1.08E-05	8.44E-04
↳axon development	143	11	2.51	4.39	+	7.62E-05	3.54E-03
↳cell morphogenesis involved in neuron differentiation	158	11	2.77	3.97	+	1.74E-04	7.60E-03
↳cell morphogenesis involved in differentiation	178	13	3.12	4.17	+	2.87E-05	1.69E-03
↳neuron projection guidance	104	11	1.82	6.03	+	4.90E-06	4.45E-04
↳chemotaxis	176	11	3.09	3.57	+	4.17E-04	1.47E-02
↳taxis	176	11	3.09	3.57	+	4.17E-04	1.49E-02
↳locomotion	384	24	6.73	3.57	+	1.96E-07	4.76E-05
↳movement of cell or subcellular component	595	32	10.43	3.07	+	4.92E-08	2.68E-05
regulation of cell migration	111	11	1.95	5.65	+	8.68E-06	7.29E-04
↳regulation of cell motility	118	11	2.07	5.32	+	1.48E-05	9.78E-04
↳regulation of locomotion	123	11	2.16	5.10	+	2.12E-05	1.36E-03
↳regulation of cellular component movement	125	11	2.19	5.02	+	2.43E-05	1.47E-03
↳regulation of localization	422	19	7.40	2.57	+	2.55E-04	1.05E-02
extracellular matrix organization	116	11	2.03	5.41	+	1.27E-05	9.27E-04
↳extracellular structure organization	117	11	2.05	5.36	+	1.37E-05	9.36E-04
cell migration	263	23	4.61	4.99	+	1.07E-09	2.35E-06
↳cell motility	304	23	5.33	4.32	+	1.39E-08	1.01E-05
↳localization of cell	304	23	5.33	4.32	+	1.39E-08	1.51E-05
tissue development	157	12	2.75	4.36	+	3.84E-05	2.09E-03
regulation of GTPase activity	118	9	2.07	4.35	+	3.60E-04	1.35E-02
↳regulation of hydrolase activity	280	15	4.91	3.06	+	2.00E-04	8.38E-03
↳regulation of catalytic activity	646	26	11.32	2.30	+	1.21E-04	5.40E-03
↳regulation of molecular function	806	31	14.13	2.19	+	6.28E-05	3.19E-03
cell adhesion	366	24	6.42	3.74	+	8.53E-08	3.10E-05
↳biological adhesion	366	24	6.42	3.74	+	8.53E-08	2.66E-05