

GeDiPNet Cluster 303 -- Enriched GO Terms (Biological Process)

GO term enrichment: Biological Process terms (gene2go, human/tax_id=9606 only), upper-tail hypergeometric test, fold enrichment = (overlap / cluster gene count) / (term gene count / universe size), Benjamini-Hochberg FDR-corrected. Top 15 terms per cluster by q-value. See scripts/build_cluster_go_enrichment.php on gedipnet.bicnirrh.res.in. Data as of: 2026-10-08 03:23:04. · Rows: 15 · Generated: 2026-10-08 17:01:47

GO Term	GO ID	Overlap Genes	Overlap Gene Names	Term Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
melanin biosynthetic process	GO:0042438	7	OCA2, SLC24A5, TYR, MC1R, TYRP1, SLC45A2, DCT	14	30	311.45	4.397e-17	4.217e-14
melanin biosynthetic process from tyrosine	GO:0006583	4	OCA2, TYR, SLC45A2, DCT	4	30	622.90	5.395e-12	2.102e-9
pigmentation	GO:0043473	6	OCA2, TYR, MC1R, TYRP1, DCT, MITF	39	30	95.83	3.161e-11	1.022e-8
melanocyte differentiation	GO:0030318	4	OCA2, TYRP1, LRMDA, MITF	21	30	118.65	3.169e-8	4.583e-6
developmental pigmentation	GO:0048066	3	OCA2, SLC45A2, DCT	14	30	133.48	1.343e-6	1.061e-4
response to blue light	GO:0009637	2	TYR, DCT	5	30	249.16	2.484e-5	1.072e-3
lysosomal lumen pH elevation	GO:0035752	2	OCA2, SLC45A2	6	30	207.63	3.722e-5	1.466e-3
sodium ion transmembrane transport	GO:0035725	4	TPCN2, SLC12A1, SLC24A5, SLC24A4	134	30	18.59	5.994e-5	2.099e-3
positive regulation of melanin biosynthetic process	GO:0048023	2	RAB38, TYRP1	10	30	124.58	1.112e-4	3.342e-3
transmembrane transport	GO:0055085	6	TPCN2, OCA2, SLC12A1, SLC24A5, SLC45A2, SLC24A4	557	30	6.71	2.202e-4	5.502e-3
response to vitamin D	GO:0033280	2	TPCN2, TYR	21	30	59.32	5.134e-4	9.912e-3
melanosome organization	GO:0032438	2	RAB38, TYRP1	25	30	49.83	7.305e-4	1.264e-2
intracellular calcium ion homeostasis	GO:0006874	3	TPCN2, SLC24A5, SLC24A4	113	30	16.54	7.760e-4	1.316e-2
negative regulation of cAMP/PKA signal transduction	GO:0141162	2	PDE3A, PDE6B	28	30	44.49	9.177e-4	1.466e-2
protein localization to membrane	GO:0072657	2	RAB38, ZDHHC15	33	30	37.75	1.275e-3	1.789e-2