

GeDiPNet Cluster 3 -- Enriched Pathways

Pathway enrichment: KEGG + Reactome, upper-tail hypergeometric test, Benjamini-Hochberg FDR-corrected. Fold enrichment = (overlap / cluster gene count) / (pathway gene count / universe size). Top 15 pathways per cluster by q-value. See scripts/build_cluster_enrichment.php on gedipnet.bicnirrh.res.in. Data as of: 2026-10-07 03:30:09. · Rows: 15 · Generated: 2026-10-07 14:35:55

Pathway	Source	Overlap Genes	Overlap Gene Names	Pathway Gene Count	Cluster Gene Count	Fold Enrichment	P-value	FDR Q-value
Cytoskeleton in muscle cells	KEGG	74	ANKRD1, FLNC, LMNA, PKP2, DES, DSC2, DSG2, DSP, JUP, LDB3, MYBPC3, MYH7	232	797	4.81	9.525e-32	3.094e-28
Hypertrophic cardiomyopathy	KEGG	39	ACE, AGT, CACNA1C, EDN1, LMNA, RYR2, DES, MYBPC3, MYH7, MYL3, TGFB3, TTN	99	797	5.94	5.609e-21	5.206e-18
Dilated cardiomyopathy	KEGG	37	AGT, CACNA1C, LMNA, PLN, RYR2, DES, MYBPC3, MYH7, MYL3, TGFB3, TTN, ACTC1	105	797	5.31	4.798e-18	2.803e-15
Adrenergic signaling in cardiomyocytes	KEGG	45	AGT, CACNA1C, CALM1, CALM2, CALM3, KCNQ1, PLN, PPP1R1A, RYR2, SCN5A, MYH7, MYL3	154	797	4.40	5.165e-18	2.956e-15
Proteoglycans in cancer	KEGG	48	ANK2, CAV1, CDKN1A, PTK2, WNT8A, CAMK2D, CAV3, PRKCA, SOS1, TNF, CAV2, RAF1	204	797	3.55	5.188e-15	1.736e-12
Oxytocin signaling pathway	KEGG	41	CACNA1C, CALM1, CALM2, CALM3, KCNJ2, PTGS2, RYR2, CACNB2, RYR1, PRKAG2, CDKN1A, KCNJ5	154	797	4.01	5.757e-15	1.921e-12
Striated Muscle Contraction	Reactome	20	DES, MYBPC3, MYL3, TTN, ACTC1, ACTN2, DMD, MYH6, MYL2, TNNC1, TNNI3, TNNT2	36	797	8.37	5.783e-15	1.924e-12
Arrhythmogenic right ventricular cardiomyopathy	KEGG	30	CACNA1C, GJA1, LMNA, PKP2, RYR2, CDH2, CTNNA3, DES, DSC2, DSG2, DSP, JUP	86	797	5.26	9.686e-15	3.039e-12
cGMP-PKG signaling pathway	KEGG	42	CACNA1C, CALM1, CALM2, CALM3, KNG1, PLN, MYH7, MYH6, GNAI2, GATA4, KCNJ8, INS	166	797	3.81	1.858e-14	5.473e-12
Phase 0 - rapid depolarisation	Reactome	19	CACNA1C, CALM1, CALM2, CALM3, SCN5A, CACNB2, SCN10A, CACNA2D1, CAMK2D, RANGRF, SCN1B, SCN2B	44	797	6.51	9.718e-12	1.748e-9
Calcium signaling pathway	KEGG	48	CACNA1C, CALM1, CALM2, CALM3, CASQ2, HTR4, PLN, RYR2, TRDN, RYR1, TNNC1, FGF5	254	797	2.85	2.818e-11	4.570e-9
Lipid and atherosclerosis	KEGG	43	CALM1, CALM2, CALM3, PTK2, CAMK2D, PRKCA, TNF, AKT1, CYP2C9, FAS, FASLG, HSPD1	216	797	3.00	5.424e-11	8.251e-9
Cardiac muscle contraction	KEGG	25	CACNA1C, CASQ2, RYR2, TRDN, MYH7, MYL3, ACTC1, CACNB2, MYH6, MYL2, TNNC1, TNNI3	87	797	4.33	2.036e-10	2.736e-8
Renin secretion	KEGG	22	ACE, AGT, CACNA1C, CALM1, CALM2, CALM3, EDN1, KCNJ2, GNAI2, ADCY5, ADCYAP1, ADRB2	69	797	4.80	2.705e-10	3.531e-8
Glioma	KEGG	23	CALM1, CALM2, CALM3, CDK6, CDKN1A, CAMK2D, PRKCA, SOS1, RAF1, AKT1, MAPK1, MAPK3	76	797	4.56	3.448e-10	4.397e-8