

GeDiPNet Shared-Gene Disease Pairs

Similarity: Jaccard index on shared curated genes (disease_gdp). Significance: upper-tail hypergeometric test ($P(X \geq k)$), Benjamini-Hochberg FDR-corrected across all tested pairs. Corroborated Shared Genes: count of shared genes backed by ≥ 2 distinct disease_gdp.main_source values combined across both diseases (e.g. GWAS-backed for one, ClinVar-backed for the other still counts); Shared Gene Names lists each gene's own source count in parentheses. Overlap Coefficient: shared genes / MIN(each disease's own total gene count) -- complements the Jaccard-based Similarity Score by showing how much of the SMALLER disease's entire known gene-set is covered by this pair, which Jaccard (dividing by the union) can understate. Shared Cluster: cluster id if both diseases fall in the same label-propagation cluster (scripts/build_disease_clusters.php), blank otherwise. See scripts/build_related.php on gedipnet.bicnirrh.res.in. Data as of: 2026-10-21 12:58:11. Filters applied: disease name contains "Muscular dystrophy-dystroglycanopathy" (89 matching pairs). · Rows: 89 · Generated: 2026-10-21 12:59:28

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a13	Rheumatoid arthritis	1	1	B3GNT2 (4)	0.00151	0.50000	8.354e-2	8.451e-2	
Breast neoplasms	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a13	1	1	B4GAT1 (3)	0.00189	0.50000	6.677e-2	6.809e-2	
Gout	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b15	1	1	DPM3 (2)	0.00122	1.00000	5.282e-2	5.432e-2	
Cardiomyopathy	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b15	1	1	DPM3 (2)	0.00394	1.00000	1.634e-2	1.773e-2	
Graves disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a13	1	1	B3GNT2 (3)	0.00980	0.50000	1.287e-2	1.420e-2	
Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b15	Myopathy	1	1	DPM3 (2)	0.00826	1.00000	7.748e-3	8.873e-3	140
Congenital disorder of glycosylation	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b15	1	1	DPM3 (5)	0.00990	1.00000	6.457e-3	7.556e-3	
Limb-girdle muscular dystrophy	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a8	1	0	POMGNT2 (1)	0.02326	1.00000	2.712e-3	3.483e-3	
Limb-girdle muscular dystrophy	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a9	1	1	DAG1 (3)	0.02326	1.00000	2.712e-3	3.483e-3	
Limb-girdle muscular dystrophy	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b15	1	0	DPM3 (1)	0.02326	1.00000	2.712e-3	3.483e-3	140
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a13	Walker-warburg syndrome	1	1	B4GAT1 (5)	0.05556	0.50000	2.065e-3	2.786e-3	366
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a13	1	1	B4GAT1 (3)	0.05882	0.50000	1.936e-3	2.647e-3	366
Congenital muscular dystrophy	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a12	1	1	POMK (3)	0.04167	1.00000	1.485e-3	2.122e-3	
Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b3	Walker-warburg syndrome	1	1	POMGNT1 (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a4	Walker-warburg syndrome	1	1	FKTN (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a2	Walker-warburg syndrome	1	1	POMT2 (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b6	Walker-warburg syndrome	1	1	LARGE1 (4)	0.05882	1.00000	1.033e-3	1.574e-3	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a12	Walker-warburg syndrome	1	1	POMK (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a10	Walker-warburg syndrome	1	1	RXYLT1 (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b2	Walker-warburg syndrome	1	1	POMT2 (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a6	Walker-warburg syndrome	1	1	LARGE1 (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a9	Walker-warburg syndrome	1	1	DAG1 (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscular dystrophy-dystroglycanopathy (congenital without impaired intellectual development), type b4	Walker-warburg syndrome	1	1	FKTN (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a8	Walker-warburg syndrome	1	1	POMGNT2 (4)	0.05882	1.00000	1.033e-3	1.574e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a9	1	1	DAG1 (3)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a8	1	1	POMGNT2 (2)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a6	1	1	LARGE1 (3)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a2	1	1	POMT2 (4)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a4	1	1	FKTN (4)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b3	1	1	POMGNT1 (4)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital without impaired intellectual development), type b4	1	1	FKTN (4)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with or without impaired intellectual development), type b5	1	1	FKRP (4)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b6	1	1	LARGE1 (3)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a10	1	1	RXYLT1 (3)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b2	1	1	POMT2 (4)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a12	1	1	POMK (2)	0.06250	1.00000	9.685e-4	1.497e-3	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a1	Sensory neuropathy	1	1	POMT1 (2)	0.06667	1.00000	9.039e-4	1.411e-3	
Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b1	Sensory neuropathy	1	1	POMT1 (2)	0.06667	1.00000	9.039e-4	1.411e-3	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a1	Pyridoxine dependent epilepsy	1	1	POMT1 (2)	0.11111	1.00000	5.165e-4	9.126e-4	
Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b1	Pyridoxine dependent epilepsy	1	1	POMT1 (2)	0.11111	1.00000	5.165e-4	9.126e-4	
Congenital muscular dystrophy due to dystroglycanopathy	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b3	1	1	POMGNT1 (2)	0.12500	1.00000	4.520e-4	8.264e-4	
Congenital muscular dystrophy due to dystroglycanopathy	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b6	1	1	LARGE1 (2)	0.12500	1.00000	4.520e-4	8.264e-4	
Congenital muscular dystrophy due to dystroglycanopathy	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a6	1	1	LARGE1 (2)	0.12500	1.00000	4.520e-4	8.264e-4	
Congenital muscular dystrophy due to dystroglycanopathy	Muscular dystrophy-dystroglycanopathy (congenital with or without impaired intellectual development), type b5	1	1	FKRP (2)	0.12500	1.00000	4.520e-4	8.264e-4	
Kenny-caffey syndrome	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a11	1	1	B3GALNT2 (3)	0.20000	0.50000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a11	1	1	B3GALNT2 (2)	0.20000	0.50000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Myopathy caused by variation in POMT1	1	1	POMT1 (2)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Myopathy caused by variation in POMT2	1	1	POMT2 (2)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Myopathy caused by variation in POMGNT1	1	1	POMGNT1 (2)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Myopathy caused by variation in FKTN	1	1	FKTN (2)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Muscular dystrophy-dystroglycanopathy (congenital without impaired intellectual development), type b4	1	0	FKTN (1)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b1	1	0	POMT1 (1)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b3	1	0	POMGNT1 (1)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b2	1	0	POMT2 (1)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a9	1	0	DAG1 (1)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a1	1	0	POMT1 (1)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Neuromuscular disease caused by qualitative or quantitative defects of alpha-dystroglycan	1	1	DAG1 (2)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a4	1	0	FKTN (1)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a12	1	0	POMK (1)	0.14286	1.00000	3.874e-4	7.329e-4	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a2	1	0	POMT2 (1)	0.14286	1.00000	3.874e-4	7.329e-4	
Muscular dystrophy-dystroglycanopathy (congenital with or without impaired intellectual development), type b5	Paresthesia	1	1	FKRP (2)	0.16667	1.00000	3.228e-4	6.413e-4	
Muscular dystrophy-dystroglycanopathy	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b6	1	1	LARGE1 (2)	0.25000	1.00000	1.937e-4	4.415e-4	
Muscular dystrophy-dystroglycanopathy	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a6	1	1	LARGE1 (2)	0.25000	1.00000	1.937e-4	4.415e-4	
Muscular dystrophy-dystroglycanopathy	Myopathy caused by variation in GMPPB	1	1	GMPPB (2)	0.25000	1.00000	1.937e-4	4.415e-4	
Congenital muscular dystrophies	Muscular dystrophy-dystroglycanopathy	1	0	B3GALNT2 (1)	0.25000	1.00000	1.937e-4	4.415e-4	
Cobblestone lissencephaly	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a10	1	0	RXYLT1 (1)	0.25000	1.00000	1.937e-4	4.415e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a11	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a12	1	0	POMK (1)	0.33333	1.00000	1.291e-4	3.269e-4	
Congenital muscular dystrophies	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a11	1	1	B3GALNT2 (2)	0.33333	1.00000	1.291e-4	3.269e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a1	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b1	1	0	POMT1 (1)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with or without impaired intellectual development), type b5	Myopathy caused by variation in FKRP	1	1	FKRP (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital without impaired intellectual development), type b4	Myopathy caused by variation in FKTN	1	1	FKTN (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Congenital alpha-dystroglycanopathy with brain and eye anomalies	Muscular dystrophy-dystroglycanopathy (congenital with or without impaired intellectual development), type b5	1	0	FKRP (1)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a4	Myopathy caused by variation in FKTN	1	1	FKTN (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a8	Walker warberg spectrum disorder	1	0	POMGNT2 (1)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b1	Myopathy caused by variation in POMT1	1	1	POMT1 (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a8	Myopathy caused by variation in POMGNT2	1	1	POMGNT2 (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a6	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b6	1	0	LARGE1 (1)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a4	Muscular dystrophy-dystroglycanopathy (congenital without impaired intellectual development), type b4	1	0	FKTN (1)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a1	Myopathy caused by variation in POMT1	1	1	POMT1 (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a2	Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b2	1	0	POMT2 (1)	0.50000	1.00000	6.457e-5	1.985e-4	

Disease A	Disease B	Shared Genes	Corroborated Shared Genes	Shared Gene Names	Similarity Score	Overlap Coefficient	P-value	FDR Q-value	Shared Cluster
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a2	Myopathy caused by variation in POMT2	1	1	POMT2 (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b2	Myopathy caused by variation in POMT2	1	1	POMT2 (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with impaired intellectual development), type b3	Myopathy caused by variation in POMGNT1	1	1	POMGNT1 (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a9	Neuromuscular disease caused by qualitative or quantitative defects of alpha-dystroglycan	1	1	DAG1 (2)	0.50000	1.00000	6.457e-5	1.985e-4	
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a11	2	2	B3GALNT2 (5), POMK (2)	0.12500	1.00000	8.755e-7	5.368e-6	
Congenital muscular dystrophy due to dystroglycanopathy	Muscular dystrophy-dystroglycanopathy	3	3	GMPPB (2), LARGE1 (3), B3GALNT2 (2)	0.37500	1.00000	5.654e-11	5.397e-10	
Congenital muscular dystrophy	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	5	5	POMT1 (4), POMT2 (4), POMGNT1 (4), FKTN (4), POMK (3)	0.20000	0.83333	2.718e-14	3.183e-13	366
Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	Walker-warburg syndrome	6	6	DAG1 (4), POMT1 (4), POMT2 (4), POMGNT1 (4), FKTN (4), POMK (4)	0.35294	1.00000	4.181e-19	5.928e-18	366
Muscle eye brain disease	Muscular dystrophy-dystroglycanopathy (congenital with brain and eye anomalies), type a	6	6	DAG1 (3), POMT1 (4), POMT2 (4), POMGNT1 (4), FKTN (4), POMK (2)	0.37500	1.00000	2.613e-19	3.724e-18	366