

Table S4 Setting2 Top 100 Nodes

Node1	Node2	node1_accession_id	node2_accession_id	neighbo rho od_ on_c hro mos ome	gen e_ fu sion	phyloge netic_co occurren ce	homolo gy	coexpre ssion	experime ntally_de termined _interacti on	databas e_annot ated	automa ted_text mining	combine d_score
ENSPMAP00000007290	ENSPMAP00000002541	A0A2D0RJL9	A0A2D0TA85	0	0	0	0	0.292	0.997	0.915	0.74	0.999
ENSPMAP00000007734	ENSPMAP00000004806	E3TEE7	A0A2D0T9T5	0	0	0	0	0.321	0.999	0.978	0.997	0.999
ENSPMAP00000007734	ENSPMAP00000005091	E3TEE7	A0A2D0SUD6	0	0	0	0	0.259	0.998	0.844	0.995	0.999
ENSPMAP00000005743	MCM7	W5UKG3	A0A2D0PT24	0	0	0.261	0.166	0.998	0.999	0.978	0.993	0.999
ENSPMAP00000007734	ENSPMAP00000006932	E3TEE7	A0A2D0T9Y6	0	0	0	0	0.272	0.998	0.923	0.941	0.999
PSMA5	ENSPMAP00000008068	W5U919	A0A2D0S6L8	0	0	0.221	0	0.819	0.997	0.978	0.561	0.999
ENSPMAP00000001829	ENSPMAP00000008907	A0A2D0T0Y6	Q1WCJ2	0	0	0	0	0.288	0.999	0.818	0.49	0.999
ENSPMAP00000005170	ENSPMAP00000008907	W5U6X2	Q1WCJ2	0	0	0	0	0	0.999	0.816	0	0.999
ENSPMAP00000003650	ENSPMAP00000008907	A0A2D0SA67	Q1WCJ2	0	0	0	0	0	0.998	0.834	0	0.999
ENSPMAP00000008362	ENSPMAP00000009374	A0A2D0RSR0	E3TE89	0	0	0	0	0	0.992	0.812	0.559	0.999
MCM7	ENSPMAP00000009418	A0A2D0PT24	A0A2D0T7T5	0	0	0	0	0.406	0.903	0.978	0.81	0.999
ENSPMAP00000005743	ENSPMAP00000009418	W5UKG3	A0A2D0T7T5	0	0	0	0	0.633	0.987	0.978	0.776	0.999
ENSPMAP00000007942	ENSPMAP000000010591	A0A2D0Q7C3	W5UEH5	0	0	0	0	0.269	0.89	0.978	0.796	0.999
ENSPMAP00000005795	ENSPMAP00000006733	A0A2D0RR20	W5USQ0	0	0	0	0	0.125	0.978	0.798	0.223	0.997
ENSPMAP00000007432	ENSPMAP00000007135	A0A2D0RJY2	A0A2D0QWH	0	0	0	0	0.135	0	0.978	0.81	0.996
ENSPMAP00000007966	ENSPMAP00000001540	A0A2D0PW54	A0A2D0Q6H	0	0	0	0	0.355	0.42	0.92	0.841	0.995
ENSPMAP00000009520	ENSPMAP00000009374	A0A2D0QAU5	E3TE89	0	0	0	0	0	0.934	0.823	0.557	0.994
ENSPMAP00000002928	ENSPMAP00000008532	A0A2D0SX66	A0A2D0SM00	0	0	0	0	0.338	0.802	0.581	0.842	0.99
ENSPMAP00000005277	ENSPMAP00000001557	A0A2D0RP66	A0A2D0R4F7	0	0	0	0	0	0	0.978	0.467	0.988
ENSPMAP00000001829	ENSPMAP00000005170	A0A2D0T0Y6	W5U6X2	0	0	0	0	0.179	0.94	0.734	0.205	0.988
ENSPMAP00000007645	ENSPMAP00000004133	A0A2D0RMF5	A0A2D0RS49	0	0	0	0	0.353	0.801	0.809	0.466	0.985
ENSPMAP00000003650	ENSPMAP00000005170	A0A2D0SA67	W5U6X2	0	0	0	0	0.503	0.95	0	0.426	0.984
ENSPMAP00000001928	ENSPMAP00000001989	A0A2D0SP23	W5U6M2	0	0	0	0	0.499	0.28	0.816	0.683	0.976
ENSPMAP00000005170	ENSPMAP00000000284	W5U6X2	W5U6M9	0	0	0	0	0.487	0.719	0.809	0.208	0.975
ENSPMAP00000007966	ENSPMAP00000006932	A0A2D0PW54	A0A2D0T9Y6	0	0	0	0	0.289	0.768	0.818	0.277	0.975

ENSPMAP00000001540	ENSPMAP000000010591	A0A2D0Q6H0	W5UEH5	0	0	0	0	0.349	0.705	0.817	0.377	0.975
ENSPMAP00000003993	ENSPMAP000000007734	A0A2D0SE00	E3TEE7	0	0	0	0	0.27	0.732	0.814	0.365	0.974
ENSPMAP00000002362	ENSPMAP000000004180	W5UBR2	A0A2D0RT93	0	0	0	0	0.331	0.744	0.74	0.473	0.973
ENSPMAP00000005091	ENSPMAP000000009165	A0A2D0SUD6	A0A2D0QQI3	0	0	0	0	0	0.805	0.816	0.261	0.971
ENSPMAP00000008442	ENSPMAP000000010348	A0A2D0RKM8	A0A2D0QVE7	0	0	0.228	0.451	0.129	0.77	0.809	0.416	0.971
ENSPMAP000000001928	ENSPMAP000000004245	A0A2D0SP23	A0A2D0RSI3	0	0	0	0	0.139	0.191	0.818	0.786	0.969
ENSPMAP000000001829	ENSPMAP000000003650	A0A2D0TOY6	A0A2D0SA67	0	0	0	0	0.371	0.95	0	0	0.967
ENSPMAP000000003508	ENSPMAP000000005472	W5U6H6	W5U6I2	0	0	0	0	0.165	0.795	0.616	0.563	0.967
ENSPMAP000000001799	ENSPMAP000000005993	W5U9B8	E3TF29	0	0	0	0	0.135	0.618	0.85	0.418	0.967
ENSPMAP000000007734	ENSPMAP000000009165	E3TEE7	A0A2D0QQI3	0	0	0	0	0.243	0.732	0.817	0.215	0.967
ENSPMAP000000001829	ENSPMAP000000000284	A0A2D0TOY6	W5U6M9	0	0	0	0	0.292	0.732	0.797	0.206	0.965
ENSPMAP000000007734	ENSPMAP000000008068	E3TEE7	A0A2D0S6L8	0	0	0	0	0.451	0	0.93	0.168	0.965
PSMA5	ENSPMAP000000004806	W5U9I9	A0A2D0T9T5	0	0	0	0	0.355	0	0.927	0.264	0.962
ENSPMAP000000008068	ENSPMAP000000004806	A0A2D0S6L8	A0A2D0T9T5	0	0	0	0	0	0.288	0.92	0.346	0.959
ENSPMAP000000007645	ENSPMAP000000010136	A0A2D0RMF5	W5UKV5	0	0	0	0	0	0.691	0.817	0.332	0.959
ENSPMAP000000010862	ENSPMAP000000008472	A0A2D0RD02	A0A2D0RVL2	0	0	0	0	0.165	0.876	0.617	0	0.957
ENSPMAP000000008385	ENSPMAP000000001989	A0A2D0PZ24	W5U6M2	0	0	0	0	0.165	0.609	0.735	0.545	0.955
ENSPMAP000000003993	ENSPMAP000000004806	A0A2D0SE00	A0A2D0T9T5	0	0	0	0	0.19	0.8	0.545	0.419	0.951
ENSPMAP000000007645	ENSPMAP000000000168	A0A2D0RMF5	W5UBT5	0	0	0	0	0.284	0.711	0.616	0.446	0.95
ENSPMAP000000006478	ENSPMAP000000003736	A0A2D0REY6	A0A2D0SZC8	0	0	0	0	0	0.8	0.459	0.559	0.948
ENSPMAP000000004957	ENSPMAP000000004245	A0A2D0SP41	A0A2D0RSI3	0	0	0	0	0.4	0	0.814	0.572	0.948
ENSPMAP000000004133	ENSPMAP000000009431	A0A2D0RS49	A0A2D0SJ10	0	0	0	0	0	0.639	0.773	0.39	0.946
ENSPMAP000000008924	ENSPMAP000000009178	A0A2D0PSX8	A0A2D0SZV8	0	0	0	0	0.182	0.467	0.85	0.263	0.945
ENSPMAP000000008907	ENSPMAP000000000284	Q1WCJ2	W5U6M9	0	0	0	0	0.28	0.724	0.74	0	0.944
ENSPMAP000000001502	ENSPMAP000000003777	A0A2D0QR45	Q2I171	0	0	0	0	0.348	0	0.863	0.418	0.943
ENSPMAP000000000589	ENSPMAP000000003777	A0A2D0QA32	Q2I171	0	0	0	0	0.28	0.387	0.809	0.407	0.943
ENSPMAP000000004135	ENSPMAP000000008442	A0A2D0SCZ1	A0A2D0RKM	0	0	0	0	0	0.65	0.738	0.416	0.942
ENSPMAP000000001107	ENSPMAP000000001695	A0A2D0PN16	A0A2D0SC55	0	0	0	0	0.265	0.661	0.599	0.476	0.941
ENSPMAP000000001107	ENSPMAP000000009360	A0A2D0PN16	A0A2D0PKY9	0	0	0	0	0.575	0	0.599	0.68	0.941
ENSPMAP000000007645	EPS15L1	A0A2D0RMF5	A0A2D0RUC3	0	0	0	0.285	0.096	0.671	0.744	0.415	0.94
ENSPMAP000000009431	ENSPMAP000000008924	A0A2D0SJ10	A0A2D0PSX8	0	0	0	0	0.167	0.63	0.741	0.337	0.94
TOMM40L	ENSPMAP000000006645	A0A2D0S1W0	A0A2D0SSL4	0	0	0	0	0.383	0	0.574	0.788	0.939
ENSPMAP000000007432	ENSPMAP000000001149	A0A2D0RJY2	A0A2D0QU1	0	0	0	0	0.286	0	0.863	0.407	0.937

PSMA5	ENSPMAP00000007734	W5U919	E3TEE7	0	0	0	0	0.618	0	0.842	0	0.937
MCM7	ENSPMAP00000006989	A0A2D0PT24	A0A2D0PMA	0	0	0.242	0	0.725	0	0.614	0.302	0.936
EPS15L1	ENSPMAP000000010136	A0A2D0RUC3	W5UKV5	0	0	0	0	0.076	0.624	0.756	0.312	0.934
ENSPMAP00000003032	ENSPMAP000000010818	A0A2D0PP22	A0A2D0R3S8	0	0	0	0.376	0.293	0	0.814	0.813	0.932
ENSPMAP00000004117	ENSPMAP00000001989	A0A2D0PRG6	W5U6M2	0	0	0	0	0.133	0.527	0	0.844	0.93
ENSPMAP00000006844	ENSPMAP00000002563	Q2EGP9	A0A2D0RNH	0	0	0	0	0.279	0	0.902	0	0.926
ENSPMAP00000000168	ENSPMAP000000010136	W5UBT5	W5UKV5	0	0	0	0	0	0.282	0.86	0.303	0.924
ENSPMAP00000005795	ENSPMAP000000010567	A0A2D0RR20	A0A2D0QZJ3	0	0	0	0	0.292	0	0.869	0.201	0.919
ENSPMAP00000006645	ENSPMAP00000003231	A0A2D0SSL4	W5UC97	0	0	0	0	0.271	0.84	0	0.325	0.914
ENSPMAP00000004133	ENSPMAP000000010348	A0A2D0RS49	A0A2D0QVE7	0	0	0	0	0.281	0	0.844	0.283	0.913
ENSPMAP00000005743	ENSPMAP00000006989	W5UKG3	A0A2D0PMA	0	0	0.206	0	0.792	0	0	0.503	0.911
ENSPMAP00000007966	ENSPMAP00000009833	A0A2D0PW54	W5UA49	0	0	0	0	0	0	0.819	0.491	0.904
ENSPMAP00000007966	ENSPMAP00000002362	A0A2D0PW54	W5UBR2	0	0	0	0	0.269	0.397	0.755	0.209	0.903
ENSPMAP00000007966	ENSPMAP00000005472	A0A2D0PW54	W5U6I2	0	0	0	0	0.291	0.778	0	0.435	0.903
ENSPMAP00000005734	ENSPMAP00000001604	A0A2D0PNA8	A0A2D0SJZ4	0	0	0	0	0.145	0	0.85	0.3	0.902
ENSPMAP00000008719	ENSPMAP00000009360	A0A2D0QRJ5	A0A2D0PKY9	0	0	0.235	0	0.275	0.803	0	0.211	0.902
ENSPMAP00000006856	ENSPMAP00000003508	A0A2D0PSK8	W5U6H6	0	0	0	0	0.26	0	0.797	0.38	0.899
ENSPMAP00000007125	ENSPMAP00000003737	E3TE71	A0A2D0RG57	0	0	0	0	0.129	0.876	0	0.138	0.899
ENSPMAP00000001989	ENSPMAP00000006828	W5U6M2	A0A2D0RCN6	0	0	0.219	0.838	0.292	0.445	0.744	0.338	0.899
ENSPMAP00000000441	ENSPMAP00000006407	A0A2D0SW18	A0A2D0RLM8	0	0	0	0	0	0	0	0.897	0.897
PSMA5	ENSPMAP000000010145	W5U919	A0A2D0SWZ	0	0	0	0	0.197	0.876	0	0	0.896
ENSPMAP00000001288	ENSPMAP00000001540	A0A2D0RLC7	A0A2D0Q6H	0	0	0	0	0.359	0.45	0	0.726	0.895
ENSPMAP00000001502	ENSPMAP00000006478	A0A2D0QR45	A0A2D0REY6	0	0	0	0	0.297	0	0.817	0.23	0.892
ENSPMAP00000007650	ENSPMAP00000005795	A0A2D0RD20	A0A2D0RR20	0	0	0	0	0.136	0.876	0	0	0.888
ENSPMAP00000001502	ENSPMAP00000006523	A0A2D0QR45	A0A2D0QGD	0	0	0	0.51	0	0	0.85	0.542	0.888
ENSPMAP00000008068	ENSPMAP00000001150	A0A2D0S6L8	W5UD75	0	0	0	0	0	0.833	0	0.349	0.887
ENSPMAP00000009937	ENSPMAP00000005472	A0A2D0S415	W5U6I2	0	0	0	0	0.133	0	0.815	0.337	0.884
ENSPMAP00000004133	ENSPMAP00000009178	A0A2D0RS49	A0A2D0SZV8	0	0	0	0	0	0.608	0.541	0.403	0.883
ENSPMAP00000006989	ENSPMAP00000007734	A0A2D0PMA3	E3TEE7	0	0	0	0	0.292	0	0.815	0.166	0.881
ENSPMAP00000004806	ENSPMAP00000009165	A0A2D0T9T5	A0A2D0QQI3	0	0	0	0	0.169	0.592	0.612	0.19	0.879
ENSPMAP00000008924	PTPN12	A0A2D0PSX8	A0A2D0SCY0	0	0	0	0	0	0.57	0	0.727	0.878
ENSPMAP00000006478	ENSPMAP000000010862	A0A2D0REY6	A0A2D0RD02	0	0	0	0	0.291	0.802	0	0.204	0.878
ENSPMAP00000000168	EPS15L1	W5UBT5	A0A2D0RUC3	0	0	0	0	0.27	0.59	0.531	0.227	0.877

ENSPMAP00000002141	ENSPMAP000000007436	A0A2D0RBZ2	A0A2D0RXZ9	0	0	0	0	0.27	0	0.816	0.147	0.875
ENSPMAP000000007734	ENSPMAP000000007966	E3TEE7	A0A2D0PW5	0	0	0	0	0.354	0	0.814	0	0.875
ENSPMAP000000001540	ENSPMAP000000003128	A0A2D0Q6H0	A0A2D0QZ81	0	0	0	0	0.344	0.719	0	0.368	0.873
ENSPMAP000000005100	ENSPMAP000000008907	W5UDM0	Q1WCJ2	0	0	0	0	0.341	0	0.814	0	0.872
ENSPMAP000000004237	ENSPMAP000000008321	A0A2D0QLG0	A0A2D0QKS2	0	0	0	0	0.169	0.591	0	0.643	0.868
ENSPMAP000000011206	ENSPMAP000000009045	A0A2D0QHS7	A0A2D0Q739	0	0	0	0	0	0	0	0.867	0.867
ENSPMAP000000000168	BIN1	W5UBT5	A0A2D0RYW	0	0	0	0	0	0.446	0.698	0.264	0.866
ENSPMAP000000007966	ENSPMAP000000001288	A0A2D0PW54	A0A2D0RLC7	0	0	0	0	0.181	0.458	0.545	0.405	0.864
ENSPMAP000000001502	ENSPMAP000000001799	A0A2D0QR45	W5U9B8	0	0	0	0	0	0	0.735	0.494	0.86