

Comparison of SGD Networks with STRING Networks

Physical Graph (139,463 edges)

STRING Network	STRING v9.1 Edges	Shared	Jaccard	STRING v12.0 Edges	Shared	Jaccard
Neighborhood	45,610	2,108	0.0115	147,874	4,578	0.0162
Fusion	1,361	153	0.0011	11,810	788	0.0052
Cooccurence	2,664	476	0.0034	11,115	1,005	0.0067
Coexpression	314,013	21,555	0.0499	1,002,538	69,946	0.0652
Experimental	219,995	59,886	0.1999	825,101	105,034	0.1222
Database	33,486	7,935	0.0481	73,818	11,230	0.0556
Combined	536,207	68,743	0.1133	1,298,235	106,455	0.0800

Regulatory Graph (9,745 edges)

STRING Network	STRING v9.1 Edges	Shared	Jaccard	STRING v12.0 Edges	Shared	Jaccard
Neighborhood	45,610	9	0.0002	147,874	27	0.0002
Fusion	1,361	1	0.0001	11,810	11	0.0005
Cooccurence	2,664	1	0.0001	11,115	37	0.0018
Coexpression	314,013	153	0.0005	1,002,538	1,050	0.0010
Experimental	219,995	489	0.0021	825,101	1,244	0.0015
Database	33,486	58	0.0013	73,818	65	0.0008
Combined	536,207	608	0.0011	1,298,235	1,514	0.0012

STRING Network Overlap Analysis

Number of Edges Appearing in Multiple Network Types

Number of Network Types	STRING v9.1	STRING v12.0
1 network	467,361	630,567
2 networks	58,079	572,039
3 networks	9,561	85,339
4 networks	1,115	9,900
5 networks	79	346
6 networks	12	44
Total unique edges	536,207	1,298,235

Pairwise Network Overlaps

Network Pair		STRING v9.1	STRING v12.0
Coexpression	Database	15,409	57,388
Coexpression	Experimental	34,806	557,632
Cooccurence	Coexpression	1,251	7,119
Cooccurence	Database	395	1,184
Cooccurence	Experimental	874	5,660
Experimental	Database	11,940	40,076
Fusion	Coexpression	482	8,601
Fusion	Cooccurence	77	318
Fusion	Database	243	876
Fusion	Experimental	345	5,960
Neighborhood	Coexpression	18,694	120,681
Neighborhood	Cooccurence	255	287
Neighborhood	Database	3,552	22,212
Neighborhood	Experimental	5,797	61,904
Neighborhood	Fusion	302	1,678