

<b>Gene</b>	<b>Neighbor Node ID</b>	<b>Importance Score</b>	<b>Distance (10 kb)</b>	<b>Hi-C Counts</b>
TOP2B	51819	4.3	13	186
	51820	3.0	14	116
	51821	2.5	15	97
	51822	6.9	16	87
	51823	4.5	17	105
	51824	10.0	18	120
	51829	3.5	23	101
	51830	6.8	24	54
	51831	5.3	25	47
	51832	1.0	26	34
SIDT1	60557	5.7	4	155
	60558	6.6	3	171
	60559	10.0	2	413
	60560	1.3	1	316
	60562	2.7	1	603
	60563	1.6	2	287
	60564	1.0	3	182
	60565	4.7	4	162
	60566	2.9	5	88
60582	5.6	21	70	
LAPTM5	3119	7.9	4	459
	3120	1.0	3	513
	3124	3.0	1	812
	3125	2.0	2	391
	3137	3.2	14	101
	3138	7.8	15	145
	3139	5.1	16	99
	3140	10.0	17	86
AKR1B1	136734	2.5	2	191
	136738	7.7	2	118
	136739	2.5	3	65
	136740	1.0	4	78
	136741	2.8	5	145
	136744	2.4	8	63
	136746	5.0	10	53
	136747	4.0	11	66
	136750	7.7	14	73
	136751	10.0	15	90
BAX	264946	3.9	10	38
	264947	4.6	9	45
	264948	8.4	8	61
	264949	3.5	7	69
	264950	3.0	6	55

	264951	10.0	5	79
	264952	1.0	4	103
	264954	3.3	2	152
	264955	7.4	1	265
	264957	6.7	1	153
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	200464	4.8	6	44
	200468	1.6	2	67
	200471	6.6	1	83
	200473	10.0	3	27
HNRNPA1	200474	1.1	4	79
	200475	5.8	5	77
	200476	1.0	6	48
	200477	3.3	7	37
	200478	3.9	8	79
	200479	7.6	9	49
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	261291	1.0	11	34
	261292	3.3	10	44
	261294	4.8	8	57
	261295	3.6	7	47
PRDX2	261297	4.5	5	36
	261298	5.2	4	70
	261299	10.0	3	79
	261304	8.1	2	116
	261305	5.7	3	117
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	261308	5.5	8	47
	261310	9.8	6	90
	261311	7.6	5	62
	261313	4.9	3	32
RAD23A	261314	1.0	2	73
	261315	10.0	1	162
	261317	4.3	1	122
	261331	2.8	15	32
	261332	5.7	16	20
	261333	8.1	17	26

Table S7: **Relationships among node importance scores, distance from target gene, and Hi-C counts.** For each exemplar gene, the the node IDs of its neighbors are shown (second column) along with their importance scores (third column), distances from the target gene node (fourth column), and normalized Hi-C frequency counts (fifth column).