Appendix

This section supplements the incomplete tables in this paper, such as Tables 1, 2, 3 and 4.

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
1	P53_HUMAN	866	575	1441
2	MYC_HUMAN	371	79	450
3	RL40_HUMAN	193	179	372
4	RS27A_HUMAN	193	179	372
5	UBB_HUMAN	193	179	372
6	UBC_HUMAN	193	179	372
7	BRCA1_HUMAN	273	95	368
8	MDM2_HUMAN	187	176	363
9	RARA_HUMAN	199	163	362
10	ESR1_HUMAN	217	98	315
11	TRI25_HUMAN	280	30	310
12	EP300_HUMAN	145	133	278
13	NPM_HUMAN	148	114	262
14	HS90A_HUMAN	144	113	257
15	CSN5_HUMAN	210	46	256
16	ELAV1_HUMAN	204	45	249
17	LARP7_HUMAN	225	23	248
18	HDAC1_HUMAN	124	119	243
19	TERA_HUMAN	153	81	234
20	PHB_HUMAN	195	36	231
21	CDK2_HUMAN	187	41	228
22	EGFR_HUMAN	185	33	218
23	HSP7C_HUMAN	100	117	217
24	HEXI1_HUMAN	203	9	212
25	CHD3_HUMAN	156	48	204
26	CUL7_HUMAN	183	18	201
27	RING2_HUMAN	165	35	200
28	PML_HUMAN	100	100	200
29	EGLN3_HUMAN	191	9	200

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
30	CBP_HUMAN	101	96	197
31	HIF1A_HUMAN	118	78	196
32	RS6_HUMAN	78	113	191
33	UBC9_HUMAN	113	78	191
34	CDK9_HUMAN	156	33	189
35	PRKN_HUMAN	149	40	189
36	CYLD_HUMAN	166	19	185
37	TF65_HUMAN	89	90	179
38	HUWE1_HUMAN	135	43	178
39	ANDR_HUMAN	91	85	176
40	CUL4B_HUMAN	138	36	174
41	SIR7_HUMAN	168	5	173
42	AKT1_HUMAN	81	90	171
43	OBSL1_HUMAN	161	10	171
44	ROA1_HUMAN	97	73	170
45	VHL_HUMAN	112	58	170
46	CSK21_HUMAN	99	70	169
47	HNRPL_HUMAN	126	41	167
48	RS3_HUMAN	50	117	167
49	SNAI1_HUMAN	146	20	166
50	NUCL_HUMAN	87	77	164
51	CHIP_HUMAN	79	85	164
52	UBC12_HUMAN	144	19	163
53	RFA1_HUMAN	115	47	162
54	RS2_HUMAN	60	98	158
55	HDAC2_HUMAN	60	98	158
56	RS8_HUMAN	47	111	158
57	EF1A1_HUMAN	63	94	157
58	HNRPU_HUMAN	72	84	156
59	CDN1A_HUMAN	99	57	156
60	MOV10_HUMAN	129	25	154
61	AURKA_HUMAN	110	43	153
62	SNW1_HUMAN	113	38	151
63	H2AX_HUMAN	106	43	149

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
64	PARP1_HUMAN	59	88	147
65	RFA2_HUMAN	116	31	147
66	CFTR_HUMAN	138	9	147
67	RB_HUMAN	64	82	146
68	RBX1_HUMAN	104	42	146
69	RL5_HUMAN	57	89	146
70	PAN2_HUMAN	143	3	146
71	SP1_HUMAN	81	63	144
72	RL6_HUMAN	60	83	143
73	CDN2A_HUMAN	75	68	143
74	HSP74_HUMAN	34	109	143
75	ARF_HUMAN	75	68	143
76	SMUF1_HUMAN	119	24	143
77	PCNA_HUMAN	59	83	142
78	HS90B_HUMAN	53	88	141
79	UBP7_HUMAN	62	79	141
80	SMAD3_HUMAN	79	61	140
81	RL4_HUMAN	51	86	137
82	RS3A_HUMAN	37	99	136
83	RS13_HUMAN	53	83	136
84	RLA0_HUMAN	57	79	136
85	BIP_HUMAN	50	85	135
86	PCBP1_HUMAN	94	40	134
87	RL10A_HUMAN	47	87	134
88	RS14_HUMAN	47	86	133
89	RL14_HUMAN	61	72	133
90	RL11_HUMAN	57	75	132
91	CCDC8_HUMAN	123	9	132
92	RL18_HUMAN	66	65	131
93	LMNA_HUMAN	89	41	130
94	RL13_HUMAN	53	77	130
95	TIF1B_HUMAN	44	84	128
96	RL7_HUMAN	40	87	127
97	TP53B_HUMAN	96	30	126

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
98	RS16_HUMAN	38	87	125
99	RS4X_HUMAN	24	101	125
100	HDAC5_HUMAN	110	15	125
101	P73_HUMAN	66	58	124
102	XRCC6_HUMAN	31	93	124
103	SIR1_HUMAN	68	56	124
104	TBA1B_HUMAN	50	73	123
105	DDB1_HUMAN	45	78	123
106	TBA1A_HUMAN	50	73	123
107	RL3_HUMAN	46	76	122
108	RL15_HUMAN	49	73	122
109	CUL4A_HUMAN	86	36	122
110	RL23_HUMAN	55	66	121
111	FBW1A_HUMAN	67	54	121
112	RPB1_HUMAN	45	74	119
113	RL23A_HUMAN	44	75	119
114	RL37A_HUMAN	52	66	118
115	SQSTM_HUMAN	44	74	118
116	RL12_HUMAN	37	81	118
117	RL8_HUMAN	45	73	118
118	RL7A_HUMAN	39	79	118
119	SMCA4_HUMAN	49	69	118
120	RS25_HUMAN	37	80	117
121	RS19_HUMAN	40	77	117
122	KAT2B_HUMAN	57	58	115
123	PRKDC_HUMAN	36	79	115
124	CDK1_HUMAN	57	56	113
125	PTEN_HUMAN	70	43	113
126	TBG1_HUMAN	87	26	113
127	1433Z_HUMAN	47	66	113
128	BMI1_HUMAN	85	27	112
129	PABP1_HUMAN	43	68	111
130	FBRL_HUMAN	66	45	111
131	1433E_HUMAN	58	53	111

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
132	HSPB1_HUMAN	64	46	110
133	HNRPK_HUMAN	43	67	110
134	GRWD1_HUMAN	81	28	109
135	RL30_HUMAN	38	71	109
136	RL18A_HUMAN	57	52	109
137	UBE3A_HUMAN	76	33	109
138	RS7_HUMAN	24	84	108
139	RS26_HUMAN	29	79	108
140	GCR_HUMAN	64	44	108
141	HNRPM_HUMAN	45	60	105
142	PP1G_HUMAN	69	36	105
143	TBB5_HUMAN	24	80	104
144	RL19_HUMAN	50	54	104
145	RS9_HUMAN	28	76	104
146	DDX5_HUMAN	30	73	103
147	WWOX_HUMAN	88	15	103
148	XPO1_HUMAN	50	53	103
149	P63_HUMAN	71	31	102
150	RL24_HUMAN	46	56	102
151	PP1A_HUMAN	56	46	102
152	RLA2_HUMAN	37	64	101
153	G3BP1_HUMAN	64	37	101
154	FBXW7_HUMAN	69	32	101
155	RL31_HUMAN	41	59	100
156	HS71B_HUMAN	26	74	100
157	RS24_HUMAN	19	81	100
158	HSP77_HUMAN	26	74	100
159	E2F1_HUMAN	48	52	100
160	HS71A_HUMAN	26	74	100
161	RS10_HUMAN	42	57	99
162	RL21_HUMAN	51	47	98
163	TRAF6_HUMAN	55	43	98
164	MEP50_HUMAN	63	34	97
165	RS18_HUMAN	22	75	97

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
166	PRS8_HUMAN	21	76	97
167	SMAD2_HUMAN	64	33	97
168	KDM1A_HUMAN	41	56	97
169	NCOR1_HUMAN	46	50	96
170	ATM_HUMAN	59	37	96
171	RL27_HUMAN	36	60	96
172	GSK3B_HUMAN	59	36	95
173	MDC1_HUMAN	63	32	95
174	ACTB_HUMAN	25	69	94
175	SIN3A_HUMAN	36	57	93
176	TCPB_HUMAN	19	74	93
177	DAXX_HUMAN	47	46	93
178	H2A1B_HUMAN	67	26	93
179	MK01_HUMAN	42	50	92
180	ABL1_HUMAN	49	43	92
181	WDR5_HUMAN	37	54	91
182	KAT5_HUMAN	42	49	91
183	RBBP4_HUMAN	19	71	90
184	CDK4_HUMAN	37	53	90
185	2AAA_HUMAN	36	54	90
186	MERL_HUMAN	65	24	89
187	CSK2B_HUMAN	46	43	89
188	SKP1_HUMAN	25	64	89
189	FBW1B_HUMAN	74	15	89
190	BARD1_HUMAN	63	25	88
191	YBOX1_HUMAN	16	72	88
192	PSMD4_HUMAN	35	52	87
193	AURKB_HUMAN	59	28	87
194	LRRK2_HUMAN	69	18	87
195	MK06_HUMAN	77	9	86
196	SRC_HUMAN	40	45	85
197	1433S_HUMAN	59	25	84
198	1433B_HUMAN	42	41	83
199	TOP1_HUMAN	33	49	82

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
200	NCOA3_HUMAN	38	44	82
201	RS27_HUMAN	28	54	82
202	ATX3_HUMAN	47	34	81
203	SNF5_HUMAN	33	48	81
204	IKKB_HUMAN	38	43	81
205	IKKA_HUMAN	32	48	80
206	OTUB1_HUMAN	51	29	80
207	EF2_HUMAN	33	47	80
208	CHK1_HUMAN	40	40	80
209	ROA2_HUMAN	15	65	80
210	RS15_HUMAN	29	50	79
211	HERC2_HUMAN	44	34	78
212	DNMT1_HUMAN	33	45	78
213	ITCH_HUMAN	41	37	78
214	IMB1_HUMAN	13	65	78
215	IQGA1_HUMAN	37	41	78
216	ANM5_HUMAN	28	50	78
217	DNJA1_HUMAN	16	62	78
218	UBR5_HUMAN	26	52	78
219	PPARG_HUMAN	47	31	78
220	FZR1_HUMAN	44	34	78
221	B2CL1_HUMAN	44	33	77
222	MK14_HUMAN	58	19	77
223	TCPG_HUMAN	12	64	76
224	CCND1_HUMAN	32	43	75
225	SUMO1_HUMAN	28	47	75
226	BLM_HUMAN	38	37	75
227	PSME3_HUMAN	36	39	75
228	G3P_HUMAN	13	62	75
229	UB2L3_HUMAN	36	39	75
230	VIME_HUMAN	13	61	74
231	TCPA_HUMAN	11	63	74
232	LATS2_HUMAN	33	40	73
233	TCPD_HUMAN	9	64	73

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
234	PLK1_HUMAN	36	37	73
235	HNRH1_HUMAN	17	56	73
236	TCPH_HUMAN	13	60	73
237	BECN1_HUMAN	48	25	73
238	ARNT_HUMAN	43	29	72
239	TCPE_HUMAN	11	61	72
240	PARK7_HUMAN	46	26	72
241	PP2AA_HUMAN	29	43	72
242	MTOR_HUMAN	31	41	72
243	SMN_HUMAN	44	27	71
244	EWS_HUMAN	23	48	71
245	GRP75_HUMAN	15	56	71
246	TCPZ_HUMAN	9	61	70
247	TBB4B_HUMAN	10	60	70
248	RS17_HUMAN	16	54	70
249	RL28_HUMAN	23	47	70
250	ADT2_HUMAN	28	41	69
251	HD_HUMAN	40	29	69
252	SRSF1_HUMAN	10	59	69
253	SF3B1_HUMAN	17	51	68
254	TYY1_HUMAN	29	39	68
255	PRS6A_HUMAN	28	40	68
256	ZBT7A_HUMAN	56	12	68
257	SKI_HUMAN	49	19	68
258	CHK2_HUMAN	37	31	68
259	ODO2_HUMAN	55	13	68
260	PIN1_HUMAN	44	23	67
261	TCPQ_HUMAN	6	61	67
262	RBBP7_HUMAN	23	44	67
263	SMRC1_HUMAN	12	55	67
264	NCOA1_HUMAN	32	34	66
265	RL26_HUMAN	22	44	66
266	TBA4A_HUMAN	15	51	66
267	CDK8_HUMAN	41	25	66

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
268	RL10L_HUMAN	44	21	65
269	ANM1_HUMAN	24	41	65
270	UBE2N_HUMAN	27	38	65
271	MSH2_HUMAN	24	41	65
272	PIAS1_HUMAN	26	39	65
273	MDM4_HUMAN	34	31	65
274	FLNA_HUMAN	16	48	64
275	CTBP1_HUMAN	37	27	64
276	CSK22_HUMAN	34	30	64
277	NP1L1_HUMAN	23	40	63
278	MK08_HUMAN	39	24	63
279	DNJA2_HUMAN	9	54	63
280	MYH9_HUMAN	16	47	63
281	BCL2_HUMAN	28	35	63
282	RAD51_HUMAN	35	28	63
283	PAIRB_HUMAN	34	29	63
284	TRI27_HUMAN	30	33	63
285	HECW2_HUMAN	56	6	62
286	DCAF7_HUMAN	33	29	62
287	EIF3E_HUMAN	26	36	62
288	CLH1_HUMAN	11	51	62
289	TBP_HUMAN	21	41	62
290	KAT2A_HUMAN	24	38	62
291	CDK6_HUMAN	29	32	61
292	RBM39_HUMAN	15	46	61
293	MP2K3_HUMAN	35	26	61
294	IKBA_HUMAN	28	33	61
295	MTA2_HUMAN	18	43	61
296	UBP11_HUMAN	26	35	61
297	ATR_HUMAN	37	23	60
298	UBP15_HUMAN	29	31	60
299	HIPK2_HUMAN	28	32	60
300	TERT_HUMAN	30	30	60
301	ATPA_HUMAN	16	44	60

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
302	NFAC1_HUMAN	46	14	60
303	IGF1R_HUMAN	39	21	60
304	BRCA2_HUMAN	29	30	59
305	CDK7_HUMAN	35	24	59
306	AXIN1_HUMAN	32	27	59
307	HNRPF_HUMAN	8	51	59
308	HIF1N_HUMAN	49	10	59
309	RD23A_HUMAN	35	24	59
310	SMAD1_HUMAN	36	22	58
311	ZBT16_HUMAN	25	33	58
312	RL26L_HUMAN	19	39	58
313	PYR1_HUMAN	19	39	58
314	MBB1A_HUMAN	19	39	58
315	KC1A_HUMAN	35	23	58
316	ODPA_HUMAN	40	18	58
317	RBP2_HUMAN	14	43	57
318	STK11_HUMAN	24	33	57
319	GNL3_HUMAN	22	35	57
320	CSN2_HUMAN	24	33	57
321	SRPK1_HUMAN	34	22	56
322	COP1_HUMAN	38	18	56
323	DTL_HUMAN	29	27	56
324	RANB9_HUMAN	13	42	55
325	THOC4_HUMAN	13	42	55
326	TS101_HUMAN	30	25	55
327	ENPL_HUMAN	11	44	55
328	MTA1_HUMAN	24	31	55
329	ROA0_HUMAN	7	47	54
330	KLK5_HUMAN	33	21	54
331	ING1_HUMAN	33	21	54
332	TBA1C_HUMAN	6	48	54
333	UHRF2_HUMAN	36	18	54
334	CREB1_HUMAN	25	29	54
335	TOP2A_HUMAN	18	36	54

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
336	HEY1_HUMAN	48	6	54
337	SENP3_HUMAN	31	23	54
338	GTF2I_HUMAN	17	36	53
339	MCL1_HUMAN	25	28	53
340	BAG2_HUMAN	8	45	53
341	PIAS4_HUMAN	22	31	53
342	PSD11_HUMAN	13	40	53
343	MED1_HUMAN	24	28	52
344	EBP2_HUMAN	27	25	52
345	VDR_HUMAN	28	24	52
346	DDX3X_HUMAN	10	42	52
347	ACL6A_HUMAN	21	31	52
348	NOP53_HUMAN	23	29	52
349	HMGA1_HUMAN	12	39	51
350	CASP8_HUMAN	31	20	51
351	EIF3H_HUMAN	16	35	51
352	NOG1_HUMAN	13	38	51
353	FOXO3_HUMAN	23	28	51
354	UHRF1_HUMAN	22	29	51
355	KMT2A_HUMAN	27	24	51
356	CCNA2_HUMAN	26	25	51
357	TEBP_HUMAN	14	36	50
358	TR150_HUMAN	1	49	50
359	PRGC1_HUMAN	26	24	50
360	ABCE1_HUMAN	36	14	50
361	UIMC1_HUMAN	26	23	49
362	RBBP5_HUMAN	17	32	49
363	PAX5_HUMAN	23	26	49
364	HNF4A_HUMAN	28	21	49
365	DCAF1_HUMAN	17	31	48
366	CSN4_HUMAN	18	30	48
367	IF2B3_HUMAN	8	40	48
368	UBE2A_HUMAN	37	11	48
369	ARAF_HUMAN	36	12	48

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
370	SNUT1_HUMAN	8	39	47
371	TXNIP_HUMAN	38	9	47
372	WRN_HUMAN	18	29	47
373	TOPB1_HUMAN	24	23	47
374	MAGD2_HUMAN	19	27	46
375	MYO6_HUMAN	20	26	46
376	TRRAP_HUMAN	14	32	46
377	EIF3F_HUMAN	15	31	46
378	IRS4_HUMAN	15	31	46
379	SF3B2_HUMAN	11	34	45
380	GCP2_HUMAN	31	14	45
381	MK03_HUMAN	19	26	45
382	CASP3_HUMAN	29	16	45
383	NR4A1_HUMAN	28	17	45
384	ANXA2_HUMAN	8	37	45
385	ARI1A_HUMAN	14	31	45
386	TAD2A_HUMAN	31	13	44
387	ERCC8_HUMAN	30	14	44
388	MEN1_HUMAN	20	24	44
389	CDK5_HUMAN	24	20	44
390	NCOA2_HUMAN	19	25	44
391	UBP10_HUMAN	16	28	44
392	NAT10_HUMAN	9	35	44
393	CARM1_HUMAN	22	22	44
394	E2AK2_HUMAN	22	21	43
395	PIAS2_HUMAN	20	23	43
396	APEX1_HUMAN	19	24	43
397	IF2B1_HUMAN	9	34	43
398	SMD3_HUMAN	5	38	43
399	UCHL1_HUMAN	20	23	43
400	AGO2_HUMAN	21	22	43
401	LYN_HUMAN	17	25	42
402	EIF3B_HUMAN	10	32	42
403	MSH6_HUMAN	11	31	42

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
404	SMAD7_HUMAN	22	20	42
405	RFC4_HUMAN	8	33	41
406	TRI32_HUMAN	20	21	41
407	DREB_HUMAN	13	28	41
408	PRP6_HUMAN	7	34	41
409	ASH2L_HUMAN	15	26	41
410	TAF9_HUMAN	21	20	41
411	EIF3I_HUMAN	10	31	41
412	M3K1_HUMAN	27	14	41
413	FOXK2_HUMAN	27	14	41
414	RFC1_HUMAN	7	34	41
415	BCL6_HUMAN	22	18	40
416	RS30_HUMAN	18	22	40
417	TBB2A_HUMAN	6	34	40
418	UBIM_HUMAN	18	22	40
419	TNAP3_HUMAN	23	17	40
420	RYBP_HUMAN	23	17	40
421	TAF10_HUMAN	21	18	39
422	KLF5_HUMAN	19	20	39
423	RRP1B_HUMAN	14	25	39
424	LIMA1_HUMAN	10	29	39
425	UBE2K_HUMAN	18	21	39
426	PELP1_HUMAN	11	28	39
427	RING1_HUMAN	17	22	39
428	HS71L_HUMAN	11	28	39
429	TAB1_HUMAN	12	27	39
430	EPHA2_HUMAN	6	33	39
431	CDC42_HUMAN	23	16	39
432	RASH_HUMAN	32	7	39
433	PSMD6_HUMAN	9	29	38
434	ACTA_HUMAN	13	25	38
435	EIF3L_HUMAN	15	23	38
436	DVL2_HUMAN	13	25	38
437	GBB2_HUMAN	9	29	38

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
438	ERCC6_HUMAN	22	16	38
439	RU2A_HUMAN	11	26	37
440	AATF_HUMAN	12	25	37
441	DCTN2_HUMAN	15	22	37
442	PHF1_HUMAN	23	14	37
443	NR0B2_HUMAN	20	17	37
444	G3BP2_HUMAN	7	30	37
445	REL_HUMAN	19	18	37
446	EHMT2_HUMAN	19	18	37
447	TFAP4_HUMAN	30	7	37
448	BRCC3_HUMAN	15	22	37
449	GA45A_HUMAN	26	11	37
450	CAPZB_HUMAN	2	34	36
451	BAG1_HUMAN	17	19	36
452	LPPRC_HUMAN	2	34	36
453	ZHX1_HUMAN	6	30	36
454	TADA3_HUMAN	23	13	36
455	AP2A_HUMAN	14	22	36
456	SET_HUMAN	13	23	36
457	FOXK1_HUMAN	18	18	36
458	IF2B_HUMAN	17	19	36
459	WDR82_HUMAN	15	20	35
460	MET_HUMAN	17	18	35
461	ANXA7_HUMAN	24	11	35
462	RT22_HUMAN	4	31	35
463	TPM3_HUMAN	6	29	35
464	ATF3_HUMAN	14	21	35
465	PTTG1_HUMAN	19	16	35
466	TOPRS_HUMAN	24	11	35
467	BCR_HUMAN	13	22	35
468	ACTBL_HUMAN	11	24	35
469	BAX_HUMAN	20	15	35
470	E4F1_HUMAN	27	8	35
471	KPCD_HUMAN	20	15	35

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
472	RCC1_HUMAN	12	23	35
473	THB_HUMAN	21	13	34
474	TAF1_HUMAN	10	24	34
475	PDCD6_HUMAN	15	19	34
476	XPC_HUMAN	9	25	34
477	DNJB1_HUMAN	5	29	34
478	TWST1_HUMAN	21	13	34
479	KC1E_HUMAN	18	16	34
480	TAF6_HUMAN	14	20	34
481	PIMT_HUMAN	8	26	34
482	ZN363_HUMAN	16	18	34
483	RT09_HUMAN	5	29	34
484	ASPP2_HUMAN	12	22	34
485	ANXA1_HUMAN	11	23	34
486	UBP28_HUMAN	19	15	34
487	ECT2_HUMAN	31	3	34
488	MP2K5_HUMAN	27	7	34
489	THIO_HUMAN	9	25	34
490	ECHB_HUMAN	2	31	33
491	TOP2B_HUMAN	4	29	33
492	HSP72_HUMAN	2	31	33
493	FGFR4_HUMAN	6	27	33
494	CDN2B_HUMAN	6	27	33
495	DNJB6_HUMAN	3	30	33
496	FAK1_HUMAN	14	19	33
497	PSD10_HUMAN	17	16	33
498	RAE1L_HUMAN	13	20	33
499	UBE4B_HUMAN	14	19	33
500	SOCS1_HUMAN	20	13	33
501	SERPH_HUMAN	10	23	33
502	SMRD1_HUMAN	15	18	33
503	EIF3M_HUMAN	7	25	32
504	MED21_HUMAN	16	16	32
505	DAPK1_HUMAN	20	12	32

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
506	TEAD2_HUMAN	15	17	32
507	PGFRA_HUMAN	20	12	32
508	HMGB1_HUMAN	6	26	32
509	TF2H1_HUMAN	13	19	32
510	PSB3_HUMAN	10	22	32
511	WDR48_HUMAN	26	6	32
512	MAT1_HUMAN	12	19	31
513	ACK1_HUMAN	14	17	31
514	STK4_HUMAN	15	16	31
515	RAB7A_HUMAN	7	24	31
516	RT18B_HUMAN	6	25	31
517	SUH_HUMAN	18	13	31
518	ERCC3_HUMAN	11	20	31
519	DNJC7_HUMAN	9	22	31
520	ETS1_HUMAN	15	16	31
521	RT27_HUMAN	8	23	31
522	MED17_HUMAN	10	21	31
523	ASXL2_HUMAN	13	18	31
524	IMA3_HUMAN	10	21	31
525	MVP_HUMAN	11	20	31
526	KAT6A_HUMAN	13	18	31
527	NOC2L_HUMAN	5	25	30
528	UBR4_HUMAN	4	26	30
529	GGYF2_HUMAN	10	20	30
530	TIF1A_HUMAN	10	20	30
531	SC31A_HUMAN	10	20	30
532	BRE1A_HUMAN	13	17	30
533	KC1D_HUMAN	11	19	30
534	TDG_HUMAN	16	14	30
535	SAFB1_HUMAN	9	21	30
536	RT05_HUMAN	8	22	30
537	CBLC_HUMAN	21	9	30
538	FKBP4_HUMAN	8	21	29
539	PPIB_HUMAN	6	23	29

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
540	ARI2_HUMAN	21	8	29
541	BANP_HUMAN	15	14	29
542	RFC3_HUMAN	2	27	29
543	ATRX_HUMAN	16	13	29
544	TCP4_HUMAN	9	20	29
545	TFDP1_HUMAN	15	14	29
546	TGM2_HUMAN	10	19	29
547	CXXC1_HUMAN	13	16	29
548	KAT8_HUMAN	16	13	29
549	UBP21_HUMAN	23	6	29
550	TIM50_HUMAN	0	28	28
551	HAUS1_HUMAN	18	10	28
552	TF3C3_HUMAN	5	23	28
553	PDLI7_HUMAN	10	18	28
554	MK07_HUMAN	19	9	28
555	FBXW8_HUMAN	17	11	28
556	DDX20_HUMAN	6	22	28
557	CCNH_HUMAN	15	13	28
558	PTCD3_HUMAN	4	24	28
559	ITF2_HUMAN	9	19	28
560	KITH_HUMAN	24	4	28
561	SRSF6_HUMAN	3	24	27
562	UBQL2_HUMAN	13	14	27
563	RUNX2_HUMAN	11	16	27
564	SETD7_HUMAN	17	10	27
565	MINY4_HUMAN	22	5	27
566	TFP11_HUMAN	7	20	27
567	TPM1_HUMAN	6	21	27
568	CENPA_HUMAN	19	8	27
569	HSP76_HUMAN	5	22	27
570	CRYAB_HUMAN	13	14	27
571	UT14A_HUMAN	1	26	27
572	SNUT2_HUMAN	10	17	27
573	SP3_HUMAN	16	11	27

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
574	CEBPZ_HUMAN	4	23	27
575	PP4C_HUMAN	12	14	26
576	TM1L1_HUMAN	8	18	26
577	EP400_HUMAN	9	17	26
578	HECD1_HUMAN	7	19	26
579	ASF1A_HUMAN	15	11	26
580	CKAP4_HUMAN	3	23	26
581	SPT6H_HUMAN	5	21	26
582	RBM3_HUMAN	12	14	26
583	UBP1_HUMAN	14	12	26
584	UBE2B_HUMAN	12	14	26
585	KS6A1_HUMAN	18	8	26
586	UFD1_HUMAN	11	15	26
587	MLP3B_HUMAN	19	7	26
588	FOXP1_HUMAN	15	11	26
589	BABA2_HUMAN	11	15	26
590	MYO1C_HUMAN	3	22	25
591	SUPT3_HUMAN	13	12	25
592	TPM4_HUMAN	0	25	25
593	PPID_HUMAN	14	11	25
594	MUC1_HUMAN	14	11	25
595	AIMP2_HUMAN	14	11	25
596	MIF_HUMAN	6	19	25
597	MK09_HUMAN	13	12	25
598	HDAC9_HUMAN	13	12	25
599	CSN1_HUMAN	12	13	25
600	WDR33_HUMAN	6	19	25
601	LMBL1_HUMAN	22	3	25
602	NR1I2_HUMAN	13	12	25
603	RT23_HUMAN	2	22	24
604	COR1C_HUMAN	7	17	24
605	HABP4_HUMAN	20	4	24
606	VASP_HUMAN	3	21	24
607	TFR1_HUMAN	2	22	24

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
608	NFYA_HUMAN	12	12	24
609	CDN1C_HUMAN	12	12	24
610	GELS_HUMAN	6	18	24
611	PRC2A_HUMAN	5	19	24
612	UBP3_HUMAN	14	10	24
613	IF16_HUMAN	15	9	24
614	ERH_HUMAN	7	17	24
615	CDN2C_HUMAN	13	11	24
616	ING2_HUMAN	12	11	23
617	CC14B_HUMAN	20	3	23
618	IF2P_HUMAN	2	21	23
619	KMT5A_HUMAN	15	8	23
620	ZMY11_HUMAN	10	13	23
621	REV1_HUMAN	11	12	23
622	GPS2_HUMAN	13	10	23
623	PPM1D_HUMAN	15	8	23
624	RIR2_HUMAN	3	20	23
625	SMRD2_HUMAN	5	17	22
626	PACRG_HUMAN	16	6	22
627	SENP1_HUMAN	11	11	22
628	RM24_HUMAN	5	17	22
629	DOCK7_HUMAN	1	21	22
630	RT28_HUMAN	2	20	22
631	KDM6A_HUMAN	11	11	22
632	TBCD4_HUMAN	3	19	22
633	BAG5_HUMAN	8	14	22
634	BIRC6_HUMAN	4	18	22
635	RCN2_HUMAN	2	20	22
636	RSMN_HUMAN	11	11	22
637	ERBB4_HUMAN	12	10	22
638	VGFR2_HUMAN	12	10	22
639	CBLB_HUMAN	10	12	22
640	CHD8_HUMAN	6	16	22
641	EXOS8_HUMAN	4	17	21

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
642	TF3C4_HUMAN	3	18	21
643	NUB1_HUMAN	11	10	21
644	KAISO_HUMAN	5	16	21
645	STAM2_HUMAN	9	12	21
646	NECD_HUMAN	11	10	21
647	DACH1_HUMAN	15	6	21
648	CFLAR_HUMAN	13	8	21
649	ING5_HUMAN	6	15	21
650	SIN3B_HUMAN	7	14	21
651	DDX50_HUMAN	0	21	21
652	AGO1_HUMAN	7	14	21
653	CLK3_HUMAN	17	4	21
654	DPOLA_HUMAN	7	14	21
655	PP2BA_HUMAN	6	14	20
656	EXOS4_HUMAN	9	11	20
657	MUL1_HUMAN	15	5	20
658	RM38_HUMAN	3	17	20
659	TRI39_HUMAN	9	11	20
660	TNR16_HUMAN	7	13	20
661	TF2H4_HUMAN	7	13	20
662	CEP55_HUMAN	3	17	20
663	T22D3_HUMAN	9	11	20
664	PLAL1_HUMAN	8	12	20
665	ING4_HUMAN	10	10	20
666	CLCA_HUMAN	4	16	20
667	SOX4_HUMAN	13	7	20
668	TRIM8_HUMAN	5	15	20
669	EGR1_HUMAN	8	12	20
670	SEC13_HUMAN	4	16	20
671	RBCC1_HUMAN	13	7	20
672	ZBT17_HUMAN	8	12	20
673	KS6A3_HUMAN	9	11	20
674	RYK_HUMAN	17	3	20
675	S10A8_HUMAN	4	16	20

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
676	AAKB2_HUMAN	14	6	20
677	KMT2E_HUMAN	15	5	20
678	FKBP3_HUMAN	11	8	19
679	MYPT1_HUMAN	1	18	19
680	RFWD3_HUMAN	9	10	19
681	FRIH_HUMAN	7	12	19
682	HMGA2_HUMAN	9	10	19
683	SET1A_HUMAN	8	11	19
684	NFYB_HUMAN	10	9	19
685	PRC2C_HUMAN	0	19	19
686	BRD7_HUMAN	6	13	19
687	BACH1_HUMAN	9	10	19
688	OTUD5_HUMAN	9	10	19
689	ABRX2_HUMAN	7	12	19
690	GNL3L_HUMAN	8	11	19
691	TCAL1_HUMAN	10	9	19
692	SYVN1_HUMAN	10	9	19
693	SAFB2_HUMAN	4	15	19
694	PAK4_HUMAN	6	13	19
695	STABP_HUMAN	13	6	19
696	FOXB1_HUMAN	18	1	19
697	EHMT1_HUMAN	4	15	19
698	OTUD1_HUMAN	9	9	18
699	IFG15_HUMAN	3	15	18
700	USO1_HUMAN	2	16	18
701	STAT6_HUMAN	10	8	18
702	ERN1_HUMAN	10	8	18
703	CCNG1_HUMAN	12	6	18
704	NQO1_HUMAN	9	9	18
705	RM39_HUMAN	6	12	18
706	TOIP2_HUMAN	3	15	18
707	UB2V2_HUMAN	8	10	18
708	NMT1_HUMAN	8	10	18
709	TTK_HUMAN	8	10	18

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
710	BHE40_HUMAN	10	8	18
711	IRF7_HUMAN	8	9	17
712	RUNX3_HUMAN	7	10	17
713	MOGS_HUMAN	5	12	17
714	MK10_HUMAN	11	6	17
715	RT02_HUMAN	8	9	17
716	T22D1_HUMAN	12	5	17
717	TAF5_HUMAN	4	13	17
718	WT1_HUMAN	12	5	17
719	DOT1L_HUMAN	11	6	17
720	MSI2H_HUMAN	3	14	17
721	ETS2_HUMAN	8	9	17
722	ERCC2_HUMAN	3	14	17
723	NLK_HUMAN	11	6	17
724	ELL_HUMAN	2	15	17
725	MED8_HUMAN	4	13	17
726	FOXQ1_HUMAN	17	0	17
727	KPCD1_HUMAN	7	10	17
728	ZNF24_HUMAN	7	10	17
729	DNM3L_HUMAN	14	3	17
730	TAF5L_HUMAN	1	15	16
731	LTOR5_HUMAN	7	9	16
732	FBX11_HUMAN	6	10	16
733	NUMB_HUMAN	5	11	16
734	ETV1_HUMAN	4	12	16
735	SETD2_HUMAN	6	10	16
736	POLI_HUMAN	7	9	16
737	CHM4B_HUMAN	7	9	16
738	BAK_HUMAN	9	7	16
739	PGH2_HUMAN	8	8	16
740	PER2_HUMAN	6	10	16
741	RNF38_HUMAN	6	10	16
742	HERC5_HUMAN	9	7	16
743	GUAA_HUMAN	3	13	16

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
744	HYPK_HUMAN	13	3	16
745	DAPK3_HUMAN	7	9	16
746	DPOD3_HUMAN	5	10	15
747	IF4E2_HUMAN	3	12	15
748	MAML1_HUMAN	8	7	15
749	NEUL4_HUMAN	8	7	15
750	CAN1_HUMAN	9	6	15
751	KIF2A_HUMAN	3	12	15
752	BBC3B_HUMAN	4	11	15
753	BBC3_HUMAN	4	11	15
754	YTHD1_HUMAN	0	15	15
755	ST65G_HUMAN	3	12	15
756	S100B_HUMAN	7	8	15
757	RT25_HUMAN	0	15	15
758	MYL6B_HUMAN	3	12	15
759	RT14_HUMAN	4	11	15
760	SNAI2_HUMAN	8	7	15
761	KIT_HUMAN	7	8	15
762	ICK_HUMAN	5	10	15
763	KS6A2_HUMAN	4	11	15
764	ZCH10_HUMAN	9	6	15
765	MYL9_HUMAN	2	12	14
766	ECHP_HUMAN	2	12	14
767	FBX4_HUMAN	4	10	14
768	RECQ5_HUMAN	9	5	14
769	ASPP1_HUMAN	7	7	14
770	UBD_HUMAN	8	6	14
771	RM41_HUMAN	4	10	14
772	PADI4_HUMAN	6	8	14
773	TBA8_HUMAN	2	12	14
774	TAF1C_HUMAN	1	13	14
775	AP2C_HUMAN	4	10	14
776	KAT7_HUMAN	4	10	14
777	IASPP_HUMAN	7	7	14

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
778	PDIP2_HUMAN	2	12	14
779	LACTB_HUMAN	3	11	14
780	ECD_HUMAN	3	11	14
781	ZN420_HUMAN	6	8	14
782	TCTP_HUMAN	7	7	14
783	CCAR1_HUMAN	7	7	14
784	STING_HUMAN	7	7	14
785	IPYR_HUMAN	1	13	14
786	ARI3A_HUMAN	8	6	14
787	MAPK5_HUMAN	7	7	14
788	PRDM2_HUMAN	7	7	14
789	B2CL2_HUMAN	9	5	14
790	TADA1_HUMAN	6	7	13
791	NELFD_HUMAN	8	5	13
792	LS14A_HUMAN	0	13	13
793	HBB_HUMAN	0	13	13
794	RN125_HUMAN	8	5	13
795	TAF1B_HUMAN	4	9	13
796	RAVR1_HUMAN	0	13	13
797	ZN148_HUMAN	4	9	13
798	PDCD5_HUMAN	5	8	13
799	MAFK_HUMAN	6	7	13
800	ZN668_HUMAN	4	9	13
801	IDH3B_HUMAN	1	12	13
802	CRTC2_HUMAN	5	8	13
803	TM10C_HUMAN	1	12	13
804	TF3B_HUMAN	1	12	13
805	DCR1C_HUMAN	7	6	13
806	PHKG2_HUMAN	6	7	13
807	ZWINT_HUMAN	9	4	13
808	ZBT8A_HUMAN	3	10	13
809	SMG7_HUMAN	3	10	13
810	UB2Q1_HUMAN	5	8	13
811	LAPM5_HUMAN	6	7	13

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
812	TRXR1_HUMAN	5	8	13
813	ANM3_HUMAN	5	8	13
814	UBP24_HUMAN	1	12	13
815	RORG_HUMAN	4	9	13
816	NU155_HUMAN	0	12	12
817	DAB2P_HUMAN	5	7	12
818	MKRN1_HUMAN	6	6	12
819	THAP1_HUMAN	1	11	12
820	BTBD2_HUMAN	5	7	12
821	KCD17_HUMAN	4	8	12
822	TCAL4_HUMAN	5	7	12
823	SMYD2_HUMAN	6	6	12
824	MSL2_HUMAN	5	7	12
825	ACSL4_HUMAN	1	11	12
826	CC14A_HUMAN	7	5	12
827	CLCB_HUMAN	3	9	12
828	PATZ1_HUMAN	4	8	12
829	ENAH_HUMAN	2	10	12
830	S10A4_HUMAN	4	8	12
831	PNPH_HUMAN	4	8	12
832	RFFL_HUMAN	10	2	12
833	FOXG1_HUMAN	7	5	12
834	NIN_HUMAN	5	7	12
835	ESS2_HUMAN	2	9	11
836	ZBT49_HUMAN	6	5	11
837	NDKM_HUMAN	4	7	11
838	CALD1_HUMAN	1	10	11
839	RPOM_HUMAN	0	11	11
840	ASPM_HUMAN	3	8	11
841	CPNE7_HUMAN	5	6	11
842	SIVA_HUMAN	5	6	11
843	HAIR_HUMAN	2	9	11
844	MAGA2_HUMAN	5	6	11
845	MCM8_HUMAN	2	9	11

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
846	LYSC_HUMAN	0	11	11
847	BI2L1_HUMAN	3	8	11
848	CUL9_HUMAN	5	6	11
849	TAF1A_HUMAN	4	7	11
850	TPC11_HUMAN	2	9	11
851	SCO2_HUMAN	1	10	11
852	HECD3_HUMAN	4	7	11
853	DYR_HUMAN	3	8	11
854	P52K_HUMAN	4	7	11
855	RIR2B_HUMAN	6	5	11
856	APBB2_HUMAN	8	3	11
857	ZMIZ1_HUMAN	8	3	11
858	BRNP1_HUMAN	4	7	11
859	S10A6_HUMAN	3	8	11
860	NUAK1_HUMAN	7	4	11
861	ZBTB2_HUMAN	2	9	11
862	RNF43_HUMAN	6	4	10
863	GCYA1_HUMAN	4	6	10
864	SPSB1_HUMAN	3	7	10
865	GFPT2_HUMAN	1	9	10
866	SCYL2_HUMAN	3	7	10
867	DPH1_HUMAN	5	5	10
868	MDHC_HUMAN	1	9	10
869	SOSB1_HUMAN	3	7	10
870	LIPB1_HUMAN	0	10	10
871	FBX21_HUMAN	1	9	10
872	ITPK1_HUMAN	4	6	10
873	PA1B3_HUMAN	8	2	10
874	VRK2_HUMAN	5	5	10
875	HIPK3_HUMAN	6	4	10
876	MPH6_HUMAN	5	5	10
877	EAF2_HUMAN	7	3	10
878	ZMIZ2_HUMAN	3	7	10
879	RNF34_HUMAN	5	5	10

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
880	TMED9_HUMAN	2	8	10
881	PHC3_HUMAN	6	4	10
882	RPR1A_HUMAN	2	7	9
883	IMP3_HUMAN	0	9	9
884	AIPL1_HUMAN	5	4	9
885	TBPL1_HUMAN	6	3	9
886	SLAF1_HUMAN	7	2	9
887	ADHX_HUMAN	4	5	9
888	TSNAX_HUMAN	4	5	9
889	MED22_HUMAN	0	9	9
890	PLK3_HUMAN	7	2	9
891	NPRL3_HUMAN	1	8	9
892	EXOS7_HUMAN	4	5	9
893	TOPK_HUMAN	4	5	9
894	KDM4D_HUMAN	3	6	9
895	T53I1_HUMAN	5	4	9
896	FOXS1_HUMAN	8	1	9
897	FOXC1_HUMAN	3	6	9
898	NMT2_HUMAN	3	6	9
899	UBP42_HUMAN	5	4	9
900	MTMRD_HUMAN	1	7	8
901	RPC22_HUMAN	1	7	8
902	RPAC2_HUMAN	1	7	8
903	UMPS_HUMAN	0	8	8
904	FBX42_HUMAN	3	5	8
905	MZT2B_HUMAN	2	6	8
906	RN128_HUMAN	3	5	8
907	SEC63_HUMAN	1	7	8
908	RABL6_HUMAN	2	6	8
909	ZHANG_HUMAN	2	6	8
910	BRD8_HUMAN	1	7	8
911	GPTC8_HUMAN	0	8	8
912	SMG5_HUMAN	1	7	8
913	CANB1_HUMAN	1	7	8

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
914	VAT1_HUMAN	1	7	8
915	VRK1_HUMAN	2	6	8
916	SCAM1_HUMAN	2	6	8
917	GP156_HUMAN	8	0	8
918	RAP1B_HUMAN	5	3	8
919	HINFP_HUMAN	6	2	8
920	HOME3_HUMAN	5	3	8
921	FOXN1_HUMAN	8	0	8
922	LDB3_HUMAN	5	2	7
923	PHF20_HUMAN	2	5	7
924	STXB4_HUMAN	2	5	7
925	HAUS4_HUMAN	1	6	7
926	FHIT_HUMAN	3	4	7
927	AKA12_HUMAN	1	6	7
928	DHRS4_HUMAN	4	3	7
929	DGKZ_HUMAN	4	3	7
930	KPBB_HUMAN	2	5	7
931	HXA9_HUMAN	2	5	7
932	TTC28_HUMAN	0	7	7
933	PRAM_HUMAN	2	5	7
934	UBP49_HUMAN	6	1	7
935	ANKR2_HUMAN	2	5	7
936	SPB9_HUMAN	6	1	7
937	EPHA3_HUMAN	1	6	7
938	TEP1_HUMAN	3	4	7
939	NTH_HUMAN	2	5	7
940	DHC24_HUMAN	3	4	7
941	ZFY16_HUMAN	0	6	6
942	ETHE1_HUMAN	3	3	6
943	TIGAR_HUMAN	3	3	6
944	ABR_HUMAN	0	6	6
945	NOTC4_HUMAN	1	5	6
946	SACS_HUMAN	1	5	6
947	PTTG_HUMAN	2	4	6

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
948	AMPL_HUMAN	2	4	6
949	LAMA4_HUMAN	5	1	6
950	ZNHI1_HUMAN	2	4	6
951	CJ090_HUMAN	1	5	6
952	TRI45_HUMAN	3	3	6
953	INSI1_HUMAN	3	3	6
954	STT3B_HUMAN	0	6	6
955	B2L12_HUMAN	5	1	6
956	FOXA3_HUMAN	6	0	6
957	STX5_HUMAN	1	5	6
958	PRPK_HUMAN	2	4	6
959	HECW1_HUMAN	3	3	6
960	COX17_HUMAN	5	1	6
961	CABL2_HUMAN	2	3	5
962	ANK2_HUMAN	1	4	5
963	HIPK1_HUMAN	1	4	5
964	KPB2_HUMAN	0	5	5
965	SC24D_HUMAN	0	5	5
966	TBC24_HUMAN	0	5	5
967	PIWL1_HUMAN	2	3	5
968	IL8_HUMAN	2	3	5
969	PAHX_HUMAN	2	3	5
970	APOH_HUMAN	1	4	5
971	XAF1_HUMAN	2	3	5
972	CC106_HUMAN	3	2	5
973	ELL3_HUMAN	3	2	5
974	TRI65_HUMAN	1	4	5
975	GSTM4_HUMAN	2	3	5
976	FTM_HUMAN	2	3	5
977	CP135_HUMAN	4	1	5
978	ZN839_HUMAN	0	4	4
979	AP2B_HUMAN	2	2	4
980	RUSD4_HUMAN	0	4	4
981	MYOTI_HUMAN	1	3	4

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
982	MIA2_HUMAN	3	1	4
983	TSPY1_HUMAN	2	2	4
984	TRIA1_HUMAN	1	3	4
985	CABL1_HUMAN	1	3	4
986	DZIP1_HUMAN	0	4	4
987	DMTF1_HUMAN	1	3	4
988	TRM11_HUMAN	0	4	4
989	CAPG_HUMAN	2	2	4
990	ACKR3_HUMAN	1	3	4
991	TYY2_HUMAN	2	2	4
992	MYLK_HUMAN	1	3	4
993	ANGI_HUMAN	1	3	4
994	APTX_HUMAN	3	1	4
995	FXYD6_HUMAN	2	2	4
996	RAB4A_HUMAN	1	3	4
997	ARL3_HUMAN	2	1	3
998	ANGT_HUMAN	2	1	3
999	AAGAB_HUMAN	0	3	3
1000	PLAC8_HUMAN	0	3	3
1001	IP3KC_HUMAN	0	3	3
1002	CBPA5_HUMAN	2	1	3
1003	STX2_HUMAN	0	3	3
1004	CBPC2_HUMAN	0	3	3
1005	KLH40_HUMAN	1	2	3
1006	IPKA_HUMAN	1	2	3
1007	MTHSD_HUMAN	0	3	3
1008	SOSB2_HUMAN	1	2	3
1009	BMP1_HUMAN	2	1	3
1010	NMDE2_HUMAN	0	3	3
1011	GLPK2_HUMAN	1	2	3
1012	MAGBI_HUMAN	0	3	3
1013	RMD1_HUMAN	0	3	3
1014	T200A_HUMAN	2	1	3
1015	SNX12_HUMAN	1	2	3

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
1016	TRI59_HUMAN	1	2	3
1017	SO1A2_HUMAN	2	1	3
1018	THAP8_HUMAN	2	1	3
1019	PCDA4_HUMAN	3	0	3
1020	CEL2B_HUMAN	3	0	3
1021	MAP9_HUMAN	2	1	3
1022	F111A_HUMAN	1	2	3
1023	GPSM3_HUMAN	0	2	2
1024	MFAP4_HUMAN	0	2	2
1025	RDH13_HUMAN	0	2	2
1026	RN5A_HUMAN	0	2	2
1027	IL1A_HUMAN	1	1	2
1028	JMJD8_HUMAN	0	2	2
1029	SPESP_HUMAN	0	2	2
1030	RNAS4_HUMAN	0	2	2
1031	ZIC3_HUMAN	0	2	2
1032	PDIA5_HUMAN	0	2	2
1033	STA10_HUMAN	0	2	2
1034	GTR12_HUMAN	1	1	2
1035	TFPI2_HUMAN	0	2	2
1036	ZN302_HUMAN	0	2	2
1037	CL049_HUMAN	0	2	2
1038	ARHGH_HUMAN	0	2	2
1039	5NT3A_HUMAN	0	2	2
1040	RNF39_HUMAN	1	1	2
1041	GLSL_HUMAN	0	2	2
1042	PTX3_HUMAN	0	2	2
1043	LY65B_HUMAN	0	2	2
1044	PADI1_HUMAN	1	1	2
1045	ARMX5_HUMAN	0	2	2
1046	TTLL5_HUMAN	0	2	2
1047	DPP6_HUMAN	0	2	2
1048	AIFM2_HUMAN	0	2	2
1049	NGN2_HUMAN	0	2	2

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
1050	IRX1_HUMAN	0	2	2
1051	NEIL3_HUMAN	0	2	2
1052	ACV1C_HUMAN	0	2	2
1053	USH2A_HUMAN	0	2	2
1054	ST1E1_HUMAN	2	0	2
1055	F173A_HUMAN	2	0	2
1056	GPX2_HUMAN	2	0	2
1057	ANXA3_HUMAN	1	1	2
1058	SAMD7_HUMAN	0	1	1
1059	TOP1M_HUMAN	0	1	1
1060	CTR2_HUMAN	0	1	1
1061	RETNB_HUMAN	0	1	1
1062	PURG_HUMAN	0	1	1
1063	LGI4_HUMAN	0	1	1
1064	MORN2_HUMAN	0	1	1
1065	PSD3_HUMAN	0	1	1
1066	FBLN4_HUMAN	0	1	1
1067	SL9A9_HUMAN	0	1	1
1068	ZN300_HUMAN	0	1	1
1069	HPCA_HUMAN	0	1	1
1070	OLIG2_HUMAN	0	1	1
1071	ZN763_HUMAN	0	1	1
1072	GBRG3_HUMAN	0	1	1
1073	DKK2_HUMAN	0	1	1
1074	ADA28_HUMAN	0	1	1
1075	CP20A_HUMAN	0	1	1
1076	ZN619_HUMAN	0	1	1
1077	MYPC1_HUMAN	0	1	1
1078	ZN679_HUMAN	0	1	1
1079	NPAS3_HUMAN	0	1	1
1080	MFS12_HUMAN	0	1	1
1081	ARP21_HUMAN	0	1	1
1082	KLRF1_HUMAN	0	1	1
1083	HINT3_HUMAN	0	1	1

Table 1: Degree centrality of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Out Degree	In Degree	Degree
1084	EPG5_HUMAN	0	1	1
1085	HYAL4_HUMAN	0	1	1
1086	CCL18_HUMAN	1	0	1
1087	UBP29_HUMAN	1	0	1
1088	FCAMR_HUMAN	1	0	1

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
1	P53_HUMAN	1	545	TFP11_HUMAN	0.505581395
2	MYC_HUMAN	0.611017426	546	ARI2_HUMAN	0.505581395
3	RL40_HUMAN	0.580042689	547	PHF1_HUMAN	0.505581395
4	RS27A_HUMAN	0.580042689	548	ETS1_HUMAN	0.505581395
5	UBB_HUMAN	0.580042689	549	CKAP4_HUMAN	0.505581395
6	UBC_HUMAN	0.580042689	550	ATRX_HUMAN	0.505581395
7	TRI25_HUMAN	0.578191489	551	BAX_HUMAN	0.505581395
8	BRCA1_HUMAN	0.576963907	552	RBM3_HUMAN	0.505581395
9	RARA_HUMAN	0.56881214	553	PSD10_HUMAN	0.505581395
10	ESR1_HUMAN	0.566145833	554	KPCD_HUMAN	0.505581395
11	LARP7_HUMAN	0.560887513	555	TAF1_HUMAN	0.505346351
12	MDM2_HUMAN	0.560020608	556	COR1C_HUMAN	0.505346351
13	ELAV1_HUMAN	0.560020608	557	CENPA_HUMAN	0.505346351
14	CSN5_HUMAN	0.557150179	558	PPID_HUMAN	0.505346351
15	PHB_HUMAN	0.554591837	559	ATF3_HUMAN	0.505346351
16	CDK2_HUMAN	0.552899288	560	FBXW8_HUMAN	0.505346351
17	HEXI1_HUMAN	0.5526182	561	ZN363_HUMAN	0.505346351
18	NPM_HUMAN	0.550937658	562	BANP_HUMAN	0.505346351
19	HS90A_HUMAN	0.550101215	563	ERCC3_HUMAN	0.505346351
20	TERA_HUMAN	0.548712771	564	DDX20_HUMAN	0.505346351
21	EGLN3_HUMAN	0.548435923	565	TGM2_HUMAN	0.505346351
22	EGFR_HUMAN	0.547883065	566	SOCS1_HUMAN	0.505346351
23	CUL7_HUMAN	0.547883065	567	UBP28_HUMAN	0.505346351

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
24	EP300_HUMAN	0.547607053	568	RIR2_HUMAN	0.505346351
25	CHD3_HUMAN	0.546505782	569	ACK1_HUMAN	0.505111524
26	HSP7C_HUMAN	0.544862155	570	PP4C_HUMAN	0.505111524
27	RING2_HUMAN	0.543228386	571	RT23_HUMAN	0.505111524
28	SIR7_HUMAN	0.54241517	572	VASP_HUMAN	0.505111524
29	CYLD_HUMAN	0.542144638	573	TFR1_HUMAN	0.505111524
30	CDK9_HUMAN	0.541334661	574	BRE1A_HUMAN	0.505111524
31	OBSL1_HUMAN	0.541334661	575	KC1D_HUMAN	0.505111524
32	HDAC1_HUMAN	0.540527101	576	GELS_HUMAN	0.505111524
33	HNRPL_HUMAN	0.539186508	577	PRC2A_HUMAN	0.505111524
34	HUWE1_HUMAN	0.538652131	578	CCNH_HUMAN	0.505111524
35	PRKN_HUMAN	0.538385339	579	RCN2_HUMAN	0.505111524
36	MOV10_HUMAN	0.537586548	580	ERH_HUMAN	0.505111524
37	ROA1_HUMAN	0.537320811	581	KS6A1_HUMAN	0.505111524
38	UBC12_HUMAN	0.537055336	582	MLP3B_HUMAN	0.505111524
39	UBC9_HUMAN	0.536525173	583	CDN2C_HUMAN	0.505111524
40	RFA1_HUMAN	0.536525173	584	LMBL1_HUMAN	0.505111524
41	SNAI1_HUMAN	0.536260483	585	BABA2_HUMAN	0.505111524
42	CUL4B_HUMAN	0.536260483	586	TIF1A_HUMAN	0.504876916
43	NUCL_HUMAN	0.535731888	587	UBQL2_HUMAN	0.504876916
44	PAN2_HUMAN	0.535731888	588	PDLI7_HUMAN	0.504876916
45	RS6_HUMAN	0.53546798	589	EP400_HUMAN	0.504876916
46	HIF1A_HUMAN	0.534677816	590	RM24_HUMAN	0.504876916
47	CBP_HUMAN	0.534152334	591	DOCK7_HUMAN	0.504876916
48	EF1A1_HUMAN	0.53388998	592	ASF1A_HUMAN	0.504876916
49	RFA2_HUMAN	0.53388998	593	RT28_HUMAN	0.504876916
50	CFTR_HUMAN	0.53388998	594	CC14B_HUMAN	0.504876916
51	CSK21_HUMAN	0.533366045	595	AIMP2_HUMAN	0.504876916
52	HNRPU_HUMAN	0.533104463	596	TBCD4_HUMAN	0.504876916
53	VHL_HUMAN	0.532060695	597	TFDP1_HUMAN	0.504876916
54	PML_HUMAN	0.531800391	598	IF2P_HUMAN	0.504876916
55	AURKA_HUMAN	0.531540342	599	DDX50_HUMAN	0.504876916
56	SNW1_HUMAN	0.531280547	600	IF16_HUMAN	0.504876916
57	TF65_HUMAN	0.531280547	601	RSMN_HUMAN	0.504876916

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
58	HS90B_HUMAN	0.531021006	602	SP3_HUMAN	0.504876916
59	PCBP1_HUMAN	0.531021006	603	UFD1_HUMAN	0.504876916
60	CCDC8_HUMAN	0.531021006	604	TF3C4_HUMAN	0.504642526
61	SMUF1_HUMAN	0.531021006	605	ING2_HUMAN	0.504642526
62	RS3_HUMAN	0.531021006	606	MK07_HUMAN	0.504642526
63	AKT1_HUMAN	0.530761719	607	TDG_HUMAN	0.504642526
64	RS8_HUMAN	0.530761719	608	HDAC9_HUMAN	0.504642526
65	H2AX_HUMAN	0.530243902	609	FOXP1_HUMAN	0.504642526
66	BIP_HUMAN	0.529985373	610	RYK_HUMAN	0.504642526
67	HSP74_HUMAN	0.529985373	611	NR1I2_HUMAN	0.504642526
68	CDN1A_HUMAN	0.52946907	612	CHD8_HUMAN	0.504642526
69	ANDR_HUMAN	0.52946907	613	PP2BA_HUMAN	0.504408353
70	RL6_HUMAN	0.529211295	614	SMRD2_HUMAN	0.504408353
71	RBX1_HUMAN	0.528953771	615	RM38_HUMAN	0.504408353
72	RS2_HUMAN	0.528696498	616	RUNX2_HUMAN	0.504408353
73	LMNA_HUMAN	0.527926178	617	SETD7_HUMAN	0.504408353
74	TBA1B_HUMAN	0.527926178	618	PACRG_HUMAN	0.504408353
75	PARP1_HUMAN	0.527926178	619	HABP4_HUMAN	0.504408353
76	TBA1A_HUMAN	0.527926178	620	KAISO_HUMAN	0.504408353
77	HDAC5_HUMAN	0.527926178	621	PRC2C_HUMAN	0.504408353
78	RL5_HUMAN	0.527413877	622	MIF_HUMAN	0.504408353
79	CHIP_HUMAN	0.527413877	623	CRYAB_HUMAN	0.504408353
80	HDAC2_HUMAN	0.527413877	624	MK09_HUMAN	0.504408353
81	TP53B_HUMAN	0.526902569	625	CLCA_HUMAN	0.504408353
82	RL14_HUMAN	0.526392252	626	CXXC1_HUMAN	0.504408353
83	RL11_HUMAN	0.525882922	627	GPS2_HUMAN	0.504408353
84	RL18_HUMAN	0.525882922	628	PPM1D_HUMAN	0.504408353
85	RLA0_HUMAN	0.525882922	629	FOXB1_HUMAN	0.504408353
86	RL4_HUMAN	0.525628627	630	KMT2E_HUMAN	0.504408353
87	RL13_HUMAN	0.525628627	631	MYPT1_HUMAN	0.504174397
88	SMAD3_HUMAN	0.525628627	632	TM1L1_HUMAN	0.504174397
89	TBG1_HUMAN	0.525628627	633	SENP1_HUMAN	0.504174397
90	RS14_HUMAN	0.525374577	634	IFG15_HUMAN	0.504174397
91	RS3A_HUMAN	0.525120773	635	SUPT3_HUMAN	0.504174397

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
92	RL7_HUMAN	0.525120773	636	NFYA_HUMAN	0.504174397
93	RS4X_HUMAN	0.525120773	637	KDM6A_HUMAN	0.504174397
94	GRWD1_HUMAN	0.524867214	638	DACH1_HUMAN	0.504174397
95	FBRL_HUMAN	0.524867214	639	SOX4_HUMAN	0.504174397
96	PCNA_HUMAN	0.524867214	640	SIN3B_HUMAN	0.504174397
97	CDN2A_HUMAN	0.5246139	641	TOIP2_HUMAN	0.504174397
98	TIF1B_HUMAN	0.5246139	642	AGO1_HUMAN	0.504174397
99	ARF_HUMAN	0.5246139	643	TCAL1_HUMAN	0.504174397
100	CUL4A_HUMAN	0.5246139	644	KAT8_HUMAN	0.504174397
101	HNRPM_HUMAN	0.524108004	645	UBP3_HUMAN	0.504174397
102	RL23_HUMAN	0.523855422	646	ZMY11_HUMAN	0.504174397
103	PRKDC_HUMAN	0.523855422	647	CLK3_HUMAN	0.504174397
104	XRCC6_HUMAN	0.523855422	648	CSN1_HUMAN	0.504174397
105	RB_HUMAN	0.523603083	649	NMT1_HUMAN	0.504174397
106	HSPB1_HUMAN	0.523603083	650	DPOLA_HUMAN	0.504174397
107	RL3_HUMAN	0.523603083	651	EXOS8_HUMAN	0.503940658
108	RL10A_HUMAN	0.523603083	652	MOGS_HUMAN	0.503940658
109	PABP1_HUMAN	0.523350987	653	CDN1C_HUMAN	0.503940658
110	RS16_HUMAN	0.523350987	654	RT02_HUMAN	0.503940658
111	RS13_HUMAN	0.523350987	655	TF2H4_HUMAN	0.503940658
112	RL23A_HUMAN	0.523350987	656	MUC1_HUMAN	0.503940658
113	XPO1_HUMAN	0.523350987	657	ING5_HUMAN	0.503940658
114	1433Z_HUMAN	0.523350987	658	BAG5_HUMAN	0.503940658
115	RL8_HUMAN	0.523099134	659	MSI2H_HUMAN	0.503940658
116	SP1_HUMAN	0.523099134	660	UBP1_HUMAN	0.503940658
117	WWOX_HUMAN	0.522847523	661	TRIM8_HUMAN	0.503940658
118	1433E_HUMAN	0.522847523	662	BIRC6_HUMAN	0.503940658
119	UBP7_HUMAN	0.522847523	663	SEC13_HUMAN	0.503940658
120	RS19_HUMAN	0.522345026	664	KMT5A_HUMAN	0.503940658
121	TBB5_HUMAN	0.522345026	665	FOXQ1_HUMAN	0.503940658
122	HNRPK_HUMAN	0.522345026	666	ZNF24_HUMAN	0.503940658
123	RL7A_HUMAN	0.522345026	667	RBCC1_HUMAN	0.503940658
124	PP1G_HUMAN	0.522345026	668	KS6A3_HUMAN	0.503940658
125	RS25_HUMAN	0.52209414	669	S10A8_HUMAN	0.503940658

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
126	RS7_HUMAN	0.52209414	670	FKBP3_HUMAN	0.503707136
127	RL18A_HUMAN	0.52209414	671	FRIH_HUMAN	0.503707136
128	CDK1_HUMAN	0.52209414	672	NUB1_HUMAN	0.503707136
129	DDB1_HUMAN	0.521843495	673	USO1_HUMAN	0.503707136
130	BMI1_HUMAN	0.521843495	674	CCNG1_HUMAN	0.503707136
131	RS24_HUMAN	0.52159309	675	BRD7_HUMAN	0.503707136
132	H2A1B_HUMAN	0.52159309	676	CEP55_HUMAN	0.503707136
133	HS71B_HUMAN	0.521342926	677	T22D3_HUMAN	0.503707136
134	HSP77_HUMAN	0.521342926	678	RM39_HUMAN	0.503707136
135	G3BP1_HUMAN	0.521342926	679	UBE2B_HUMAN	0.503707136
136	HS71A_HUMAN	0.521342926	680	UB2V2_HUMAN	0.503707136
137	RL19_HUMAN	0.521342926	681	REV1_HUMAN	0.503707136
138	RL15_HUMAN	0.521342926	682	ERBB4_HUMAN	0.503707136
139	RPB1_HUMAN	0.520843316	683	VGFR2_HUMAN	0.503707136
140	DDX5_HUMAN	0.52059387	684	SAFB2_HUMAN	0.503707136
141	PTEN_HUMAN	0.52059387	685	TTK_HUMAN	0.503707136
142	RL12_HUMAN	0.52059387	686	AAKB2_HUMAN	0.503707136
143	RL24_HUMAN	0.52059387	687	EXOS4_HUMAN	0.50347383
144	P73_HUMAN	0.52059387	688	TAF5L_HUMAN	0.50347383
145	SIR1_HUMAN	0.52059387	689	TRI39_HUMAN	0.50347383
146	RL37A_HUMAN	0.520344663	690	CAN1_HUMAN	0.50347383
147	RS18_HUMAN	0.520344663	691	NFYB_HUMAN	0.50347383
148	ACTB_HUMAN	0.520344663	692	YTHD1_HUMAN	0.50347383
149	SQSTM_HUMAN	0.520344663	693	STAM2_HUMAN	0.50347383
150	2AAA_HUMAN	0.520344663	694	RT25_HUMAN	0.50347383
151	SMCA4_HUMAN	0.520344663	695	DOT1L_HUMAN	0.50347383
152	MEP50_HUMAN	0.520095694	696	ABRX2_HUMAN	0.50347383
153	RL30_HUMAN	0.520095694	697	RT14_HUMAN	0.50347383
154	RS26_HUMAN	0.520095694	698	GNL3L_HUMAN	0.50347383
155	RS10_HUMAN	0.520095694	699	ELL_HUMAN	0.50347383
156	RS9_HUMAN	0.520095694	700	MED8_HUMAN	0.50347383
157	RL31_HUMAN	0.519846963	701	PAK4_HUMAN	0.50347383
158	RL21_HUMAN	0.519846963	702	CBLB_HUMAN	0.50347383
159	PRS8_HUMAN	0.519846963	703	STABP_HUMAN	0.50347383

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
160	TCPB_HUMAN	0.51959847	704	GUAA_HUMAN	0.50347383
161	FBW1A_HUMAN	0.51959847	705	DNM3L_HUMAN	0.50347383
162	FBXW7_HUMAN	0.51959847	706	HYPK_HUMAN	0.50347383
163	RLA2_HUMAN	0.519350215	707	EHMT1_HUMAN	0.50347383
164	UBE3A_HUMAN	0.519350215	708	BHE40_HUMAN	0.50347383
165	RL27_HUMAN	0.519350215	709	MYL9_HUMAN	0.503240741
166	GCR_HUMAN	0.519350215	710	MUL1_HUMAN	0.503240741
167	YBOX1_HUMAN	0.519350215	711	ECHP_HUMAN	0.503240741
168	MDC1_HUMAN	0.519350215	712	RECQ5_HUMAN	0.503240741
169	EF2_HUMAN	0.519102197	713	HMGA2_HUMAN	0.503240741
170	P63_HUMAN	0.519102197	714	RM41_HUMAN	0.503240741
171	MERL_HUMAN	0.518854415	715	TBA8_HUMAN	0.503240741
172	FBW1B_HUMAN	0.518854415	716	TAF1C_HUMAN	0.503240741
173	MK06_HUMAN	0.518854415	717	BACH1_HUMAN	0.503240741
174	PP1A_HUMAN	0.51860687	718	PLAL1_HUMAN	0.503240741
175	GSK3B_HUMAN	0.518359561	719	ERCC2_HUMAN	0.503240741
176	SMAD2_HUMAN	0.518359561	720	EGR1_HUMAN	0.503240741
177	KAT2B_HUMAN	0.518112488	721	IPYR_HUMAN	0.503240741
178	RBBP4_HUMAN	0.518112488	722	ARI3A_HUMAN	0.503240741
179	CDK4_HUMAN	0.518112488	723	HERC5_HUMAN	0.503240741
180	WDR5_HUMAN	0.51786565	724	ICK_HUMAN	0.503240741
181	AURKB_HUMAN	0.51786565	725	ZBT17_HUMAN	0.503240741
182	RS27_HUMAN	0.51786565	726	RFWD3_HUMAN	0.503007867
183	KDM1A_HUMAN	0.517619048	727	LS14A_HUMAN	0.503007867
184	TRAF6_HUMAN	0.517619048	728	IF4E2_HUMAN	0.503007867
185	CSK2B_HUMAN	0.51737268	729	HBB_HUMAN	0.503007867
186	BARD1_HUMAN	0.51737268	730	RAVR1_HUMAN	0.503007867
187	RS15_HUMAN	0.51737268	731	STAT6_HUMAN	0.503007867
188	IQGA1_HUMAN	0.517126546	732	MK10_HUMAN	0.503007867
189	SKP1_HUMAN	0.517126546	733	TNR16_HUMAN	0.503007867
190	DNJA1_HUMAN	0.517126546	734	IDH3B_HUMAN	0.503007867
191	TOP1_HUMAN	0.516880647	735	CRTC2_HUMAN	0.503007867
192	IMB1_HUMAN	0.516880647	736	TM10C_HUMAN	0.503007867
193	MK01_HUMAN	0.516880647	737	T22D1_HUMAN	0.503007867

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
194	LRRK2_HUMAN	0.516880647	738	TAF5_HUMAN	0.503007867
195	1433S_HUMAN	0.516634981	739	ST65G_HUMAN	0.503007867
196	TCPG_HUMAN	0.516634981	740	NECD_HUMAN	0.503007867
197	ATM_HUMAN	0.516634981	741	ETV1_HUMAN	0.503007867
198	ROA2_HUMAN	0.516634981	742	MYL6B_HUMAN	0.503007867
199	1433B_HUMAN	0.516634981	743	ING4_HUMAN	0.503007867
200	OTUB1_HUMAN	0.516389549	744	OTUD5_HUMAN	0.503007867
201	ADT2_HUMAN	0.516389549	745	PHKG2_HUMAN	0.503007867
202	NCOR1_HUMAN	0.516389549	746	PER2_HUMAN	0.503007867
203	VIME_HUMAN	0.516389549	747	CCAR1_HUMAN	0.503007867
204	HNRH1_HUMAN	0.516389549	748	KPCD1_HUMAN	0.503007867
205	SIN3A_HUMAN	0.515899383	749	UBP24_HUMAN	0.503007867
206	G3P_HUMAN	0.515899383	750	NU155_HUMAN	0.502775208
207	PSMD4_HUMAN	0.515899383	751	MAML1_HUMAN	0.502775208
208	TCPD_HUMAN	0.515654649	752	RUNX3_HUMAN	0.502775208
209	TBB4B_HUMAN	0.515654649	753	KIF2A_HUMAN	0.502775208
210	KAT5_HUMAN	0.515654649	754	TAF1B_HUMAN	0.502775208
211	TCPH_HUMAN	0.515654649	755	LTOR5_HUMAN	0.502775208
212	ARNT_HUMAN	0.515410147	756	ERN1_HUMAN	0.502775208
213	TCPE_HUMAN	0.515410147	757	ZN148_HUMAN	0.502775208
214	E2F1_HUMAN	0.515410147	758	SET1A_HUMAN	0.502775208
215	EWS_HUMAN	0.515410147	759	MAFK_HUMAN	0.502775208
216	PP2AA_HUMAN	0.515410147	760	NUMB_HUMAN	0.502775208
217	ODO2_HUMAN	0.515410147	761	ACSL4_HUMAN	0.502775208
218	HERC2_HUMAN	0.515165877	762	NQO1_HUMAN	0.502775208
219	TCPZ_HUMAN	0.515165877	763	WT1_HUMAN	0.502775208
220	ANM5_HUMAN	0.515165877	764	SETD2_HUMAN	0.502775208
221	GRP75_HUMAN	0.515165877	765	TF3B_HUMAN	0.502775208
222	TCPA_HUMAN	0.515165877	766	CFLAR_HUMAN	0.502775208
223	TCPQ_HUMAN	0.514921838	767	ECD_HUMAN	0.502775208
224	CHK1_HUMAN	0.514921838	768	ETS2_HUMAN	0.502775208
225	MK14_HUMAN	0.514921838	769	CHM4B_HUMAN	0.502775208
226	SRSF1_HUMAN	0.514921838	770	PGH2_HUMAN	0.502775208
227	ABL1_HUMAN	0.514921838	771	NLK_HUMAN	0.502775208

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
228	LATS2_HUMAN	0.51467803	772	ENAH_HUMAN	0.502775208
229	SF3B1_HUMAN	0.51467803	773	UB2Q1_HUMAN	0.502775208
230	SMN_HUMAN	0.51467803	774	SYVN1_HUMAN	0.502775208
231	RL28_HUMAN	0.51467803	775	ANM3_HUMAN	0.502775208
232	SRC_HUMAN	0.51467803	776	RORG_HUMAN	0.502775208
233	MYH9_HUMAN	0.514434453	777	FOXG1_HUMAN	0.502775208
234	SNF5_HUMAN	0.514434453	778	B2CL2_HUMAN	0.502775208
235	DNJA2_HUMAN	0.514191107	779	ESS2_HUMAN	0.502542765
236	RS17_HUMAN	0.514191107	780	TADA1_HUMAN	0.502542765
237	UBR5_HUMAN	0.514191107	781	NELFD_HUMAN	0.502542765
238	ZBT7A_HUMAN	0.514191107	782	IRF7_HUMAN	0.502542765
239	PSME3_HUMAN	0.513947991	783	DPOD3_HUMAN	0.502542765
240	RL26_HUMAN	0.513947991	784	CALD1_HUMAN	0.502542765
241	PAIRB_HUMAN	0.513947991	785	NEUL4_HUMAN	0.502542765
242	RL10L_HUMAN	0.513705104	786	RPOM_HUMAN	0.502542765
243	ATX3_HUMAN	0.513705104	787	OTUD1_HUMAN	0.502542765
244	SUMO1_HUMAN	0.513705104	788	BBC3B_HUMAN	0.502542765
245	RBM39_HUMAN	0.513705104	789	BBC3_HUMAN	0.502542765
246	TBA4A_HUMAN	0.513705104	790	TCAL4_HUMAN	0.502542765
247	FLNA_HUMAN	0.513705104	791	CPNE7_HUMAN	0.502542765
248	DAXX_HUMAN	0.513705104	792	FBX11_HUMAN	0.502542765
249	SMRC1_HUMAN	0.513705104	793	AP2C_HUMAN	0.502542765
250	SKI_HUMAN	0.513705104	794	LYSC_HUMAN	0.502542765
251	ODPA_HUMAN	0.513705104	795	KAT7_HUMAN	0.502542765
252	IKKA_HUMAN	0.513462447	796	CC14A_HUMAN	0.502542765
253	HECW2_HUMAN	0.513462447	797	CLCB_HUMAN	0.502542765
254	PARK7_HUMAN	0.513462447	798	PDIP2_HUMAN	0.502542765
255	CLH1_HUMAN	0.513462447	799	LACTB_HUMAN	0.502542765
256	B2CL1_HUMAN	0.513462447	800	ZWINT_HUMAN	0.502542765
257	ATPA_HUMAN	0.513462447	801	SMG7_HUMAN	0.502542765
258	HNRPF_HUMAN	0.513462447	802	SCO2_HUMAN	0.502542765
259	BECN1_HUMAN	0.513462447	803	TCTP_HUMAN	0.502542765
260	UB2L3_HUMAN	0.513462447	804	KS6A2_HUMAN	0.502542765
261	MTOR_HUMAN	0.513462447	805	DAPK3_HUMAN	0.502542765

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
262	FZR1_HUMAN	0.513462447	806	ZCH10_HUMAN	0.502542765
263	NP1L1_HUMAN	0.513220019	807	DAB2P_HUMAN	0.502310536
264	PYR1_HUMAN	0.513220019	808	RN125_HUMAN	0.502310536
265	MP2K3_HUMAN	0.513220019	809	GFPT2_HUMAN	0.502310536
266	NCOA3_HUMAN	0.513220019	810	ASPM_HUMAN	0.502310536
267	IKKB_HUMAN	0.513220019	811	THAP1_HUMAN	0.502310536
268	CSK22_HUMAN	0.51297782	812	ASPP1_HUMAN	0.502310536
269	IGF1R_HUMAN	0.51297782	813	SCYL2_HUMAN	0.502310536
270	PIN1_HUMAN	0.512735849	814	BTBD2_HUMAN	0.502310536
271	BLM_HUMAN	0.512735849	815	UBD_HUMAN	0.502310536
272	TBA1C_HUMAN	0.512735849	816	DPH1_HUMAN	0.502310536
273	PLK1_HUMAN	0.512735849	817	PDCD5_HUMAN	0.502310536
274	CCND1_HUMAN	0.512494107	818	ZN668_HUMAN	0.502310536
275	ITCH_HUMAN	0.512494107	819	SMYD2_HUMAN	0.502310536
276	ANM1_HUMAN	0.512494107	820	IASPP_HUMAN	0.502310536
277	SRPK1_HUMAN	0.512494107	821	POLI_HUMAN	0.502310536
278	MSH2_HUMAN	0.512494107	822	LIPB1_HUMAN	0.502310536
279	CTBP1_HUMAN	0.512494107	823	TRXR1_HUMAN	0.502310536
280	PPARG_HUMAN	0.512494107	824	PNPH_HUMAN	0.502310536
281	TRI27_HUMAN	0.512494107	825	DYR_HUMAN	0.502310536
282	NFAC1_HUMAN	0.512494107	826	RFFL_HUMAN	0.502310536
283	THOC4_HUMAN	0.512252592	827	HIPK3_HUMAN	0.502310536
284	DCAF7_HUMAN	0.512252592	828	NIN_HUMAN	0.502310536
285	CDK6_HUMAN	0.512252592	829	ZMIZ2_HUMAN	0.502310536
286	RBBP7_HUMAN	0.512252592	830	MAPK5_HUMAN	0.502310536
287	CDK8_HUMAN	0.512252592	831	TMED9_HUMAN	0.502310536
288	PRS6A_HUMAN	0.512252592	832	ZBTB2_HUMAN	0.502310536
289	STK11_HUMAN	0.512011305	833	IMP3_HUMAN	0.502078522
290	RL26L_HUMAN	0.512011305	834	FBX4_HUMAN	0.502078522
291	UBP15_HUMAN	0.512011305	835	MKRN1_HUMAN	0.502078522
292	MK08_HUMAN	0.512011305	836	SPSB1_HUMAN	0.502078522
293	EIF3E_HUMAN	0.512011305	837	KCD17_HUMAN	0.502078522
294	DNMT1_HUMAN	0.512011305	838	HAIR_HUMAN	0.502078522
295	DDX3X_HUMAN	0.512011305	839	MSL2_HUMAN	0.502078522

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
296	MBB1A_HUMAN	0.512011305	840	MED22_HUMAN	0.502078522
297	TERT_HUMAN	0.512011305	841	MDHC_HUMAN	0.502078522
298	KC1A_HUMAN	0.512011305	842	S100B_HUMAN	0.502078522
299	HIF1N_HUMAN	0.512011305	843	NPRL3_HUMAN	0.502078522
300	HEY1_HUMAN	0.512011305	844	SOSB1_HUMAN	0.502078522
301	ROA0_HUMAN	0.511770245	845	BI2L1_HUMAN	0.502078522
302	GNL3_HUMAN	0.511770245	846	DCR1C_HUMAN	0.502078522
303	TR150_HUMAN	0.511770245	847	ZBT8A_HUMAN	0.502078522
304	HD_HUMAN	0.511770245	848	FBX21_HUMAN	0.502078522
305	ENPL_HUMAN	0.511770245	849	ZN420_HUMAN	0.502078522
306	CHK2_HUMAN	0.511770245	850	RNF38_HUMAN	0.502078522
307	BRCA2_HUMAN	0.511529412	851	TPC11_HUMAN	0.502078522
308	TYY1_HUMAN	0.511529412	852	S10A4_HUMAN	0.502078522
309	KAT2A_HUMAN	0.511529412	853	SNAI2_HUMAN	0.502078522
310	RBP2_HUMAN	0.511288805	854	FOXS1_HUMAN	0.502078522
311	EBP2_HUMAN	0.511288805	855	KIT_HUMAN	0.502078522
312	GTF2I_HUMAN	0.511288805	856	HECD3_HUMAN	0.502078522
313	NOG1_HUMAN	0.511288805	857	STING_HUMAN	0.502078522
314	TBP_HUMAN	0.511288805	858	APBB2_HUMAN	0.502078522
315	BAG2_HUMAN	0.511288805	859	ZMIZ1_HUMAN	0.502078522
316	MTA2_HUMAN	0.511288805	860	FOXC1_HUMAN	0.502078522
317	MDM4_HUMAN	0.511288805	861	EAF2_HUMAN	0.502078522
318	TOP2A_HUMAN	0.511288805	862	NMT2_HUMAN	0.502078522
319	ABCE1_HUMAN	0.511288805	863	NUAK1_HUMAN	0.502078522
320	RANB9_HUMAN	0.511048425	864	UBP42_HUMAN	0.502078522
321	UBE2N_HUMAN	0.511048425	865	MTMRD_HUMAN	0.501846722
322	PIAS1_HUMAN	0.511048425	866	RPC22_HUMAN	0.501846722
323	RD23A_HUMAN	0.511048425	867	RPR1A_HUMAN	0.501846722
324	PSD11_HUMAN	0.511048425	868	RPAC2_HUMAN	0.501846722
325	IKBA_HUMAN	0.510808271	869	NDKM_HUMAN	0.501846722
326	IF2B3_HUMAN	0.510808271	870	UMPS_HUMAN	0.501846722
327	RAD51_HUMAN	0.510808271	871	SEC63_HUMAN	0.501846722
328	SENP3_HUMAN	0.510808271	872	PADI4_HUMAN	0.501846722
329	CREB1_HUMAN	0.510568342	873	AIPL1_HUMAN	0.501846722

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
330	UBP11_HUMAN	0.510568342	874	TBPL1_HUMAN	0.501846722
331	KLK5_HUMAN	0.510328638	875	TSNAX_HUMAN	0.501846722
332	ING1_HUMAN	0.510328638	876	MCM8_HUMAN	0.501846722
333	NCOA1_HUMAN	0.510328638	877	GPTC8_HUMAN	0.501846722
334	EIF3H_HUMAN	0.510328638	878	VAT1_HUMAN	0.501846722
335	ACL6A_HUMAN	0.510328638	879	EXOS7_HUMAN	0.501846722
336	MAGD2_HUMAN	0.51008916	880	PATZ1_HUMAN	0.501846722
337	SMAD1_HUMAN	0.51008916	881	TOPK_HUMAN	0.501846722
338	SF3B2_HUMAN	0.51008916	882	BAK_HUMAN	0.501846722
339	ATR_HUMAN	0.51008916	883	LAPM5_HUMAN	0.501846722
340	HMGA1_HUMAN	0.51008916	884	TAF1A_HUMAN	0.501846722
341	CDK7_HUMAN	0.51008916	885	GP156_HUMAN	0.501846722
342	ANXA2_HUMAN	0.51008916	886	P52K_HUMAN	0.501846722
343	BCL2_HUMAN	0.51008916	887	PA1B3_HUMAN	0.501846722
344	NOP53_HUMAN	0.51008916	888	VRK2_HUMAN	0.501846722
345	IF2B1_HUMAN	0.509849906	889	BRNP1_HUMAN	0.501846722
346	AXIN1_HUMAN	0.509849906	890	RAP1B_HUMAN	0.501846722
347	ARAF_HUMAN	0.509849906	891	S10A6_HUMAN	0.501846722
348	CSN2_HUMAN	0.509849906	892	RNF34_HUMAN	0.501846722
349	SMD3_HUMAN	0.509610877	893	FOXN1_HUMAN	0.501846722
350	UBE2A_HUMAN	0.509610877	894	PRDM2_HUMAN	0.501846722
351	PIAS4_HUMAN	0.509610877	895	ZBT49_HUMAN	0.501615136
352	ZBT16_HUMAN	0.509372071	896	HAUS4_HUMAN	0.501615136
353	CASP3_HUMAN	0.509372071	897	AKA12_HUMAN	0.501615136
354	CASP8_HUMAN	0.509372071	898	GCYA1_HUMAN	0.501615136
355	TS101_HUMAN	0.509372071	899	KPBB_HUMAN	0.501615136
356	TEBP_HUMAN	0.509372071	900	BRD8_HUMAN	0.501615136
357	SNUT1_HUMAN	0.509372071	901	SLAF1_HUMAN	0.501615136
358	NAT10_HUMAN	0.509372071	902	ADHX_HUMAN	0.501615136
359	ARI1A_HUMAN	0.509372071	903	PLK3_HUMAN	0.501615136
360	TAD2A_HUMAN	0.509133489	904	TTC28_HUMAN	0.501615136
361	MED1_HUMAN	0.509133489	905	PRAM_HUMAN	0.501615136
362	GCP2_HUMAN	0.509133489	906	SMG5_HUMAN	0.501615136
363	TXNIP_HUMAN	0.509133489	907	CANB1_HUMAN	0.501615136

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
364	UHRF2_HUMAN	0.509133489	908	T53I1_HUMAN	0.501615136
365	COP1_HUMAN	0.509133489	909	SPB9_HUMAN	0.501615136
366	RBBP5_HUMAN	0.509133489	910	ITPK1_HUMAN	0.501615136
367	CARM1_HUMAN	0.509133489	911	EPHA3_HUMAN	0.501615136
368	IRS4_HUMAN	0.509133489	912	NTH_HUMAN	0.501615136
369	DTL_HUMAN	0.509133489	913	DHC24_HUMAN	0.501615136
370	TRRAP_HUMAN	0.508895131	914	HINFP_HUMAN	0.501615136
371	ACTA_HUMAN	0.508895131	915	PHC3_HUMAN	0.501615136
372	DREB_HUMAN	0.508895131	916	ZFY16_HUMAN	0.501383764
373	LIMA1_HUMAN	0.508895131	917	RNF43_HUMAN	0.501383764
374	EIF3F_HUMAN	0.508895131	918	FBX42_HUMAN	0.501383764
375	HIPK2_HUMAN	0.508895131	919	MZT2B_HUMAN	0.501383764
376	PRP6_HUMAN	0.508895131	920	RABL6_HUMAN	0.501383764
377	KMT2A_HUMAN	0.508895131	921	SIVA_HUMAN	0.501383764
378	PAX5_HUMAN	0.508895131	922	TIGAR_HUMAN	0.501383764
379	MYO6_HUMAN	0.508656996	923	HXA9_HUMAN	0.501383764
380	MK03_HUMAN	0.508656996	924	ABR_HUMAN	0.501383764
381	LYN_HUMAN	0.508656996	925	SACS_HUMAN	0.501383764
382	APEX1_HUMAN	0.508656996	926	MAGA2_HUMAN	0.501383764
383	HS71L_HUMAN	0.508656996	927	AMPL_HUMAN	0.501383764
384	TBB2A_HUMAN	0.508656996	928	UBP49_HUMAN	0.501383764
385	MCL1_HUMAN	0.508656996	929	KDM4D_HUMAN	0.501383764
386	MTA1_HUMAN	0.508656996	930	SCAM1_HUMAN	0.501383764
387	RFC1_HUMAN	0.508656996	931	STT3B_HUMAN	0.501383764
388	RFC4_HUMAN	0.508419083	932	FOXA3_HUMAN	0.501383764
389	DCAF1_HUMAN	0.508419083	933	TEP1_HUMAN	0.501383764
390	ERCC8_HUMAN	0.508419083	934	RIR2B_HUMAN	0.501383764
391	CSN4_HUMAN	0.508419083	935	STX5_HUMAN	0.501383764
392	RRP1B_HUMAN	0.508419083	936	MPH6_HUMAN	0.501383764
393	AGO2_HUMAN	0.508419083	937	PRPK_HUMAN	0.501383764
394	GBB2_HUMAN	0.508419083	938	HECW1_HUMAN	0.501383764
395	TAB1_HUMAN	0.508419083	939	COX17_HUMAN	0.501383764
396	EPHA2_HUMAN	0.508419083	940	LDB3_HUMAN	0.501152605
397	FOXK2_HUMAN	0.508419083	941	PHF20_HUMAN	0.501152605

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
398	RASH_HUMAN	0.508419083	942	STXB4_HUMAN	0.501152605
399	UIMC1_HUMAN	0.508181393	943	ANK2_HUMAN	0.501152605
400	LPPRC_HUMAN	0.508181393	944	DHRS4_HUMAN	0.501152605
401	E2AK2_HUMAN	0.508181393	945	KPB2_HUMAN	0.501152605
402	CDK5_HUMAN	0.508181393	946	DGKZ_HUMAN	0.501152605
403	FOXO3_HUMAN	0.508181393	947	ZHANG_HUMAN	0.501152605
404	MSH6_HUMAN	0.508181393	948	SC24D_HUMAN	0.501152605
405	NR4A1_HUMAN	0.508181393	949	TBC24_HUMAN	0.501152605
406	EIF3I_HUMAN	0.508181393	950	PIWL1_HUMAN	0.501152605
407	ACTBL_HUMAN	0.508181393	951	NOTC4_HUMAN	0.501152605
408	PRGC1_HUMAN	0.508181393	952	PTTG_HUMAN	0.501152605
409	FOXK1_HUMAN	0.508181393	953	LAMA4_HUMAN	0.501152605
410	CCNA2_HUMAN	0.508181393	954	APOH_HUMAN	0.501152605
411	CAPZB_HUMAN	0.507943925	955	CJ090_HUMAN	0.501152605
412	RU2A_HUMAN	0.507943925	956	ANKR2_HUMAN	0.501152605
413	ANXA7_HUMAN	0.507943925	957	CUL9_HUMAN	0.501152605
414	VDR_HUMAN	0.507943925	958	VRK1_HUMAN	0.501152605
415	RS30_HUMAN	0.507943925	959	ELL3_HUMAN	0.501152605
416	RT22_HUMAN	0.507943925	960	TRI65_HUMAN	0.501152605
417	UCHL1_HUMAN	0.507943925	961	B2L12_HUMAN	0.501152605
418	RT09_HUMAN	0.507943925	962	FTM_HUMAN	0.501152605
419	UBIM_HUMAN	0.507943925	963	CP135_HUMAN	0.501152605
420	IF2B_HUMAN	0.507943925	964	ZN839_HUMAN	0.500921659
421	ECT2_HUMAN	0.507943925	965	AP2B_HUMAN	0.500921659
422	HNF4A_HUMAN	0.507943925	966	RUSD4_HUMAN	0.500921659
423	ECHB_HUMAN	0.507706679	967	FHIT_HUMAN	0.500921659
424	MEN1_HUMAN	0.507706679	968	CABL2_HUMAN	0.500921659
425	EIF3L_HUMAN	0.507706679	969	MIA2_HUMAN	0.500921659
426	PIMT_HUMAN	0.507706679	970	HIPK1_HUMAN	0.500921659
427	TPM3_HUMAN	0.507706679	971	RN128_HUMAN	0.500921659
428	PELP1_HUMAN	0.507706679	972	CABL1_HUMAN	0.500921659
429	EIF3B_HUMAN	0.507706679	973	DZIP1_HUMAN	0.500921659
430	REL_HUMAN	0.507706679	974	PAHX_HUMAN	0.500921659
431	TFAP4_HUMAN	0.507706679	975	TRM11_HUMAN	0.500921659

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
432	CDC42_HUMAN	0.507706679	976	ZNHI1_HUMAN	0.500921659
433	SERPH_HUMAN	0.507706679	977	CAPG_HUMAN	0.500921659
434	RCC1_HUMAN	0.507706679	978	CC106_HUMAN	0.500921659
435	HSP72_HUMAN	0.507469655	979	INSI1_HUMAN	0.500921659
436	DCTN2_HUMAN	0.507469655	980	ACKR3_HUMAN	0.500921659
437	ZHX1_HUMAN	0.507469655	981	TYY2_HUMAN	0.500921659
438	NCOA2_HUMAN	0.507469655	982	MYLK_HUMAN	0.500921659
439	DNJB6_HUMAN	0.507469655	983	FXYD6_HUMAN	0.500921659
440	UHRF1_HUMAN	0.507469655	984	HOME3_HUMAN	0.500921659
441	G3BP2_HUMAN	0.507469655	985	RAB4A_HUMAN	0.500921659
442	E4F1_HUMAN	0.507469655	986	ANGT_HUMAN	0.500690926
443	PDCD6_HUMAN	0.507232851	987	ETHE1_HUMAN	0.500690926
444	DNJB1_HUMAN	0.507232851	988	AAGAB_HUMAN	0.500690926
445	TOP2B_HUMAN	0.507232851	989	PLAC8_HUMAN	0.500690926
446	FGFR4_HUMAN	0.507232851	990	IP3KC_HUMAN	0.500690926
447	PIAS2_HUMAN	0.507232851	991	CBPA5_HUMAN	0.500690926
448	UBE2K_HUMAN	0.507232851	992	STX2_HUMAN	0.500690926
449	SET_HUMAN	0.507232851	993	TSPY1_HUMAN	0.500690926
450	WRN_HUMAN	0.507232851	994	CBPC2_HUMAN	0.500690926
451	TOPRS_HUMAN	0.507232851	995	TRIA1_HUMAN	0.500690926
452	TOPB1_HUMAN	0.507232851	996	KLH40_HUMAN	0.500690926
453	SMAD7_HUMAN	0.507232851	997	DMTF1_HUMAN	0.500690926
454	THIO_HUMAN	0.507232851	998	MTHSD_HUMAN	0.500690926
455	PSMD6_HUMAN	0.506996269	999	SOSB2_HUMAN	0.500690926
456	UBR4_HUMAN	0.506996269	1000	BMP1_HUMAN	0.500690926
457	TEAD2_HUMAN	0.506996269	1001	NMDE2_HUMAN	0.500690926
458	TAF10_HUMAN	0.506996269	1002	GLPK2_HUMAN	0.500690926
459	PGFRA_HUMAN	0.506996269	1003	MAGBI_HUMAN	0.500690926
460	HMGB1_HUMAN	0.506996269	1004	RMD1_HUMAN	0.500690926
461	M3K1_HUMAN	0.506996269	1005	TRI45_HUMAN	0.500690926
462	WDR48_HUMAN	0.506996269	1006	XAF1_HUMAN	0.500690926
463	MP2K5_HUMAN	0.506996269	1007	T200A_HUMAN	0.500690926
464	BCL6_HUMAN	0.506759907	1008	SNX12_HUMAN	0.500690926
465	WDR82_HUMAN	0.506759907	1009	SO1A2_HUMAN	0.500690926

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
466	GGYF2_HUMAN	0.506759907	1010	ANGI_HUMAN	0.500690926
467	XPC_HUMAN	0.506759907	1011	THAP8_HUMAN	0.500690926
468	KC1E_HUMAN	0.506759907	1012	PCDA4_HUMAN	0.500690926
469	CDN2B_HUMAN	0.506759907	1013	GSTM4_HUMAN	0.500690926
470	DNJC7_HUMAN	0.506759907	1014	CEL2B_HUMAN	0.500690926
471	TAF9_HUMAN	0.506759907	1015	APTX_HUMAN	0.500690926
472	BCR_HUMAN	0.506759907	1016	MAP9_HUMAN	0.500690926
473	ANXA1_HUMAN	0.506759907	1017	F111A_HUMAN	0.500690926
474	RAE1L_HUMAN	0.506759907	1018	GPSM3_HUMAN	0.500460405
475	RT27_HUMAN	0.506759907	1019	MFAP4_HUMAN	0.500460405
476	RT05_HUMAN	0.506759907	1020	RDH13_HUMAN	0.500460405
477	RYBP_HUMAN	0.506759907	1021	ARL3_HUMAN	0.500460405
478	NOC2L_HUMAN	0.506523765	1022	RN5A_HUMAN	0.500460405
479	TIM50_HUMAN	0.506523765	1023	IL1A_HUMAN	0.500460405
480	MET_HUMAN	0.506523765	1024	JMJD8_HUMAN	0.500460405
481	RAB7A_HUMAN	0.506523765	1025	MYOTI_HUMAN	0.500460405
482	AATF_HUMAN	0.506523765	1026	SPESP_HUMAN	0.500460405
483	TADA3_HUMAN	0.506523765	1027	RNAS4_HUMAN	0.500460405
484	AP2A_HUMAN	0.506523765	1028	ZIC3_HUMAN	0.500460405
485	PTTG1_HUMAN	0.506523765	1029	PDIA5_HUMAN	0.500460405
486	UBP10_HUMAN	0.506523765	1030	STA10_HUMAN	0.500460405
487	PTCD3_HUMAN	0.506523765	1031	GTR12_HUMAN	0.500460405
488	MED17_HUMAN	0.506523765	1032	TFPI2_HUMAN	0.500460405
489	GA45A_HUMAN	0.506523765	1033	IL8_HUMAN	0.500460405
490	SRSF6_HUMAN	0.506287844	1034	IPKA_HUMAN	0.500460405
491	TF3C3_HUMAN	0.506287844	1035	ZN302_HUMAN	0.500460405
492	SC31A_HUMAN	0.506287844	1036	CL049_HUMAN	0.500460405
493	TAF6_HUMAN	0.506287844	1037	ARHGH_HUMAN	0.500460405
494	DVL2_HUMAN	0.506287844	1038	5NT3A_HUMAN	0.500460405
495	RT18B_HUMAN	0.506287844	1039	GLSL_HUMAN	0.500460405
496	ASH2L_HUMAN	0.506287844	1040	PTX3_HUMAN	0.500460405
497	RFC3_HUMAN	0.506287844	1041	LY65B_HUMAN	0.500460405
498	NR0B2_HUMAN	0.506287844	1042	PADI1_HUMAN	0.500460405
499	ASPP2_HUMAN	0.506287844	1043	ARMX5_HUMAN	0.500460405

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
500	TCP4_HUMAN	0.506287844	1044	TTLL5_HUMAN	0.500460405
501	TNAP3_HUMAN	0.506287844	1045	DPP6_HUMAN	0.500460405
502	EHMT2_HUMAN	0.506287844	1046	AIFM2_HUMAN	0.500460405
503	SMRD1_HUMAN	0.506287844	1047	TRI59_HUMAN	0.500460405
504	IMA3_HUMAN	0.506287844	1048	NGN2_HUMAN	0.500460405
505	MVP_HUMAN	0.506287844	1049	IRX1_HUMAN	0.500460405
506	THB_HUMAN	0.506052142	1050	NEIL3_HUMAN	0.500460405
507	EIF3M_HUMAN	0.506052142	1051	ACV1C_HUMAN	0.500460405
508	MINY4_HUMAN	0.506052142	1052	USH2A_HUMAN	0.500460405
509	PPIB_HUMAN	0.506052142	1053	ST1E1_HUMAN	0.500460405
510	HSP76_HUMAN	0.506052142	1054	F173A_HUMAN	0.500460405
511	FAK1_HUMAN	0.506052142	1055	GPX2_HUMAN	0.500460405
512	SUH_HUMAN	0.506052142	1056	ANXA3_HUMAN	0.500460405
513	ERCC6_HUMAN	0.506052142	1057	SAMD7_HUMAN	0.500230097
514	TF2H1_HUMAN	0.506052142	1058	TOP1M_HUMAN	0.500230097
515	SAFB1_HUMAN	0.506052142	1059	CTR2_HUMAN	0.500230097
516	UBE4B_HUMAN	0.506052142	1060	RETNB_HUMAN	0.500230097
517	UT14A_HUMAN	0.506052142	1061	PURG_HUMAN	0.500230097
518	SNUT2_HUMAN	0.506052142	1062	LGI4_HUMAN	0.500230097
519	CBLC_HUMAN	0.506052142	1063	MORN2_HUMAN	0.500230097
520	PSB3_HUMAN	0.506052142	1064	PSD3_HUMAN	0.500230097
521	CEBPZ_HUMAN	0.506052142	1065	FBLN4_HUMAN	0.500230097
522	MYO1C_HUMAN	0.505816659	1066	SL9A9_HUMAN	0.500230097
523	MAT1_HUMAN	0.505816659	1067	ZN300_HUMAN	0.500230097
524	MED21_HUMAN	0.505816659	1068	HPCA_HUMAN	0.500230097
525	TRI32_HUMAN	0.505816659	1069	OLIG2_HUMAN	0.500230097
526	DAPK1_HUMAN	0.505816659	1070	ZN763_HUMAN	0.500230097
527	BAG1_HUMAN	0.505816659	1071	GBRG3_HUMAN	0.500230097
528	KLF5_HUMAN	0.505816659	1072	DKK2_HUMAN	0.500230097
529	TPM1_HUMAN	0.505816659	1073	ADA28_HUMAN	0.500230097
530	TPM4_HUMAN	0.505816659	1074	RNF39_HUMAN	0.500230097
531	RING1_HUMAN	0.505816659	1075	CP20A_HUMAN	0.500230097
532	SPT6H_HUMAN	0.505816659	1076	ZN619_HUMAN	0.500230097
533	ITF2_HUMAN	0.505816659	1077	MYPC1_HUMAN	0.500230097

Table 2: Closeness centrality distribution of 1088 proteins in P53_HUMAN PPIKG

No.	Name	Centrality	No.	Name	Centrality
534	KITH_HUMAN	0.505816659	1078	ZN679_HUMAN	0.500230097
535	ASXL2_HUMAN	0.505816659	1079	NPAS3_HUMAN	0.500230097
536	BRCC3_HUMAN	0.505816659	1080	MFS12_HUMAN	0.500230097
537	WDR33_HUMAN	0.505816659	1081	ARP21_HUMAN	0.500230097
538	UBP21_HUMAN	0.505816659	1082	KLRF1_HUMAN	0.500230097
539	KAT6A_HUMAN	0.505816659	1083	HINT3_HUMAN	0.500230097
540	STK4_HUMAN	0.505581395	1084	EPG5_HUMAN	0.500230097
541	HAUS1_HUMAN	0.505581395	1085	HYAL4_HUMAN	0.500230097
542	TWST1_HUMAN	0.505581395	1086	CCL18_HUMAN	0.500230097
543	FKBP4_HUMAN	0.505581395	1087	UBP29_HUMAN	0.500230097
544	HECD1_HUMAN	0.505581395	1088	FCAMR_HUMAN	0.500230097

Table 3: Candidate targets with direct interaction

No.	Name	No.	Name	No.	Name	No.	Name
1	TYY1_HUMAN	41	RING1_HUMAN	81	MTA2_HUMAN	121	RBBP5_HUMAN
2	UBE2K_HUMAN	42	MBB1A_HUMAN	82	KDM1A_HUMAN	122	DNJC7_HUMAN
3	LATS2_HUMAN	43	SQSTM_HUMAN	83	IMB1_HUMAN	123	ANXA2_HUMAN
4	PIAS2_HUMAN	44	RARA_HUMAN	84	MEN1_HUMAN	124	PRGC1_HUMAN
5	SP1_HUMAN	45	M3K1_HUMAN	85	UHRF1_HUMAN	125	AURKA_HUMAN
6	NCOA3_HUMAN	46	CDK4_HUMAN	86	ARNT_HUMAN	126	NUCL_HUMAN
7	NAT10_HUMAN	47	UBE2N_HUMAN	87	ASPP2_HUMAN	127	ZHX1_HUMAN
8	CSN5_HUMAN	48	KMT2A_HUMAN	88	SIN3A_HUMAN	128	WWOX_HUMAN
9	COP1_HUMAN	49	P53_HUMAN	89	HDAC2_HUMAN	129	EP300_HUMAN
10	CDK9_HUMAN	50	CDK7_HUMAN	90	BCL6_HUMAN	130	P73_HUMAN
11	AXIN1_HUMAN	51	UHRF2_HUMAN	91	MYC_HUMAN	131	RPB1_HUMAN
12	TBP_HUMAN	52	CCDC8_HUMAN	92	AKT1_HUMAN	132	CYLD_HUMAN
13	RB_HUMAN	53	E2F1_HUMAN	93	TOP2A_HUMAN	133	UIMC1_HUMAN
14	CSK21_HUMAN	54	UBC9_HUMAN	94	ENPL_HUMAN	134	E4F1_HUMAN
15	SMCA4_HUMAN	55	PIAS4_HUMAN	95	ARI1A_HUMAN	135	CHIP_HUMAN
16	ESR1_HUMAN	56	1433S_HUMAN	96	MERL_HUMAN	136	TWST1_HUMAN
17	GNL3_HUMAN	57	SMAD2_HUMAN	97	TCP4_HUMAN	137	SRPK1_HUMAN
18	RS10_HUMAN	58	BCL2_HUMAN	98	TF65_HUMAN	138	BRCA1_HUMAN
19	DCAF1_HUMAN	59	UBP10_HUMAN	99	OTUB1_HUMAN	139	WRN_HUMAN
20	WDR82_HUMAN	60	MET_HUMAN	100	ERCC6_HUMAN	140	DAXX_HUMAN
21	UBE3A_HUMAN	61	CUL7_HUMAN	101	ASH2L_HUMAN	141	PELP1_HUMAN
22	HSP7C_HUMAN	62	ATM_HUMAN	102	MK08_HUMAN	142	ARF_HUMAN
23	SNF5_HUMAN	63	ANM1_HUMAN	103	CDK1_HUMAN	143	UBR5_HUMAN
24	MK14_HUMAN	64	FAK1_HUMAN	104	NCOA1_HUMAN	144	MED21_HUMAN
25	CDK6_HUMAN	65	HIPK2_HUMAN	105	NCOA2_HUMAN	145	KAT2A_HUMAN
26	GCR_HUMAN	66	EGLN3_HUMAN	106	MTA1_HUMAN	146	IKBA_HUMAN
27	MP2K3_HUMAN	67	RANB9_HUMAN	107	CDN1A_HUMAN	147	PSME3_HUMAN
28	TOP1_HUMAN	68	CREB1_HUMAN	108	ATX3_HUMAN	148	TF2H1_HUMAN
29	MAT1_HUMAN	69	GRP75_HUMAN	109	PARP1_HUMAN	149	UBE4B_HUMAN
30	PLK1_HUMAN	70	UBP7_HUMAN	110	RAB7A_HUMAN	150	TEAD2_HUMAN
31	THB_HUMAN	71	MDM2_HUMAN	111	TAF6_HUMAN	151	G3BP1_HUMAN
32	KAT2B_HUMAN	72	SET_HUMAN	112	FGFR4_HUMAN	152	PHB_HUMAN
33	DVL2_HUMAN	73	CDK5_HUMAN	113	CDN2B_HUMAN	153	CARM1_HUMAN
34	WDR5_HUMAN	74	TP53B_HUMAN	114	RFA1_HUMAN	154	PIAS1_HUMAN
35	NR4A1_HUMAN	75	PGFRA_HUMAN	115	TAF9_HUMAN	155	CSK2B_HUMAN
36	E2AK2_HUMAN	76	HUWE1_HUMAN	116	RAD51_HUMAN	156	CDK8_HUMAN
37	CBP_HUMAN	77	MDM4_HUMAN	117	CDN2A_HUMAN	157	HMGB1_HUMAN
38	SIR1_HUMAN	78	SMAD3_HUMAN	118	AP2A_HUMAN		
39	MK01_HUMAN	79	G3BP2_HUMAN	119	DNJB1_HUMAN		
40	EPHA2_HUMAN	80	HDAC1_HUMAN	120	PML_HUMAN		

Table 4: Candidate proteins filtered by word vectors

No.	Name	Distance	No.	Name	Distance
1	P53	0	36	UBP10	10.79010835
2	MDM2	4.762906415	37	EP300	10.84719636
3	BCL2	5.158828635	38	PELP1	10.86638936
4	HIPK2	6.151367223	39	PML	10.95695529
5	E2F1	6.28466312	40	CSN5	11.03409062
6	TOP2A	6.45917878	41	SMAD2	11.05690017
7	CDK4	7.216620771	42	CDK6	11.08159994
8	PLK1	7.217002774	43	DVL2	11.16193527
9	P73	7.652083313	44	MAT1	11.30832882
10	UHRF2	7.960756221	45	ARF	11.35940675
11	MK08	8.083538653	46	CBP	11.64392615
12	FAK1	8.268858083	47	KDM1A	12.04527151
13	UBP7	8.291436893	48	CDK7	12.05266337
14	PSME3	8.347110721	49	CUL7	12.17513845
15	AXIN1	8.51865596	50	SIN3A	12.28957123
16	PIAS2	8.573265388	51	CDK1	12.29230564
17	NAT10	8.976770055	52	SP1	12.40406914
18	NCOA3	9.016340541	53	UBE3A	12.41331925
19	DAXX	9.019113304	54	HUWE1	12.56092748
20	NR4A1	9.05186596	55	MK14	12.61987527
21	FGFR4	9.053846174	56	RBBP5	13.26524349
22	UBE4B	9.125677781	57	PIAS4	13.59970415
23	CCDC8	9.182273169	58	PIAS1	13.67435088
24	KAT2A	9.298937979	59	TCP4	13.72182116
25	CDK5	9.421552421	60	SNF5	14.07788757
26	UHRF1	9.501504116	61	MEN1	14.08763015
27	SMAD3	9.647219616	62	WRN	14.39373942
28	EPHA2	9.751997237	63	ERCC6	14.66502023
29	MED21	10.04207317	64	ATX3	15.34094748
30	PARP1	10.10308961	65	CARM1	15.51191288
31	TEAD2	10.3884192	66	DCAF1	16.37473034
32	GNL3	10.51488383	67	UBR5	16.91232328
33	EGLN3	10.52513687	68	RPB1	20.4883718
34	NCOA2	10.6487784	69	THB	21.20951034
35	KAT2B	10.77193771			