

pdb = X-ray
 pdb = template complex structure
 pdb = NMR structure

ALL RING Sequences (classified into groups) and pdb structures

Consensus RING
CLASS 01

1f62
1wfk
1weo

GSSGSSG
GSSGSSGPKPLKNL

BAZ1B (1182)
DCST1 (641)
MLL3 D1 (x)

CS1Cbp
CxxC
ARCKVCRKK---GEDDKLILCDECNKA---
MESRCYGC AVKF---TLFKKEYGCKNGRA---
DGQFCEICGDQ---IGLTVEGDLFVAGNECG---FPACRCPYERREGTQ---
ENARCCVCRKKG---EDDKLILCDECNKA---
LCRRCCVCPAKETPS---YVCRTLDEAV---
EDANCAVCDSPGDL---LDQFCTTCGQH---

ppshhbsCSH
hxxxCxx
GNGCL
CNGCL
GSCWCD
VHGMCL

cbpC1ppbbp
a*xxC
HLFLRPLALYEPDGEW---
HLFLRPLALYEPDGEW---
HLFLRPLALYEPDGEW---
GSCWCDMDRQ---
VHGMCLDIIVPLKRWG---

pCFbCC
CPxC
QCPACQPAT
VCKQCHTI (25)
NCPQCKTRY (25)
QCPACQPAT (248)
RCPVCTPRE (18)
QPECKVCQ (x)

RING004	NM_016483	PHF7	(x)	GEESCI	LC	CEDLSQQS	---	VENIQSP	CSQAI	---	HRKCI	QKYA	HTSAKHFF	-----	KCPQC	NNRK	(x)	
RING005	NM_006910	RBBP6	(x)	DELLCL	ICK	DIM	-----	TDAVVIP	CGNS	---	QDECIR	TALLES	DEH	-----	TCP	CHQND	(x)	
RING006	NM_013282	UHRF1	(x)	RVCACH	LC	GGRQDPD	---	KQLMCDE	CMA	---	FHIYCL	DPPL	SSVSEDEW	-----	YCP	ECRND	(x)	
RING007	NM_152896	UHRF2	(x)	HSCSCR	V	CGGK	---	HEPNMQ	LLCDE	CNVA	---	FHIYCL	NPPL	DKVPEEEY	-----	YCP	SKTDS	(x)
RING008	NM_015565	ZNF294	(x)	GVEDCM	TC	FSVIHGFNYSLPKKACRT	CKK	---	HSAC	LYK	MTSSNKS	-----	---	---	---	---	---	
RING009	NM_182521	ZSWIM2	(x)	SEDCIS	TC	QELLEKKLP-VTF	CRFG	CGNS	---	IHKCM	KILAN	YQSTSNTSML	-----	---	---	---	---	
RING010	MAP3K1	4214	(700)	EEQMCP	IC	LLGML--DEES	LTVCEDG	CRNK	---	LHHHCS	IAEECRRN	REPL	-----	---	---	---	---	
RING011	XP_292796.3		(x)	QIIRCP	V	CLKDL	-----	EEAVQL	K	CGYA	---	CC	QLC	NSL	QKEPDG	EGL	---	
RING012	NM_170606	MLL3_D3	(x)	NQDMCV	V	CGSFGQG--AEGRL	LACSQ	CGQC	---	HPYCV	SIKIT	KVVL	SKGW	-----	---	---	---	
RING013	NM_003482	MLL2_D1	(1100)	MQDMCV	V	CGSF(8)----	LACSQ	CGQC	---	HPYCV	NSKIT	K	MLLK	GW	-----	---	---	
RING014	NM_170606	MLL3_D2	(x)	ECKVCQ	N	CKQSG----	EDSKML	VCDT	DKG	---	HTFCL	Q	PVMK	SVPTNGW	-----	---	---	

CLASS 02

RING015	NM_018124	RFWD3	(x)	EGDTCT	IC	LEQWTNAGD--HRLS	ALR	CGHL	---	---	---	---	---	---	---	---	---
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CLASS 03

RING015	NM_170606	MLL3_D4	(x)	LQMKCV	F	CHKTGAT-----	SGCH	RFR	CTNI	-----	HF	TC	AIK	AQCMFF	KDKTM	-----	---
RING016	NM_003482	MLL2_D3	(4812)	LLTKCS	LC	QRTGAT-----	SSCN	MR	PNV	---	HF	AC	AI	AKCMFF	KDKTM	-----	---

CLASS 04

RING017		Q5JST9	(x)	SIFQCP	V	CLDYAL-----	PPIL	QC	ERGH	---	VC	R	CH	SKLT	-----	---	---
RING018	NM_003031	SIAH1	(x)	SLFEC	P	CFDYVL-----	PPIL	QC	QSGH	---	VC	SN	R	PKLT	-----	---	---
RING019	NM_005067	SIAH2	(x)	SLFEC	P	CFDYVL-----	PPIL	QC	QAGH	---	VC	N	Q	R	KL	---	---

CLASS 05

RING020	NM_002392	MDM2	(439)	AIIEPC	V	ICQGRPKN-----	GCIV	H	KGTHLM	---	AC	FT	CA	K	L	K	R
RING021	NM_002393	MDM4	(432)	LLKPCS	LC	EKRPRD-----	GNII	H	GRTHLV	---	TC	F	CA	R	L	K	A

CLASS 06

RING022	NM_006605	RFPL2	(x)	EASSCP	V	CSDDL-----	EK	P	SLE	CGCA	---	VC	L	K	I	NSL	QKEPHGEDL
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CLASS 07

				GSSGSSGGSEEEE	IP	FRCF	IC	RQAF-----	QNP	P	V	V	T	K	R	H	---	FC	ES	CA	LEH	FRATP	-----	RC	Y	I	C	D	QPT	GGIFNPAKELMA(10)											
				TAPSL	TV	PECA	IC	LQTH-----	CV	P	V	S	L	P	C	K	H	---	FC	Y	L	V	K	G	A	S	W	L	G	---	RC	AL	CR	QEI	PE(10)						
				HY	SD	RTCAR	Q	ESL--	GRL	S	P	K	T	N	T	C	R	G	N	H	---	VC	R	D	C	R	I	Q	E	S	N	G	T	W	---	RC	K	V	C	S	G
RING023	10425	ARIH2	(134)	PPHCA	V	CMQFVRK-----	EN	L	L	S	L	A	Q	H	Q	---	FC	R	S	C	W	E	Q	---	---	---	---	---	---	---	---	---	---	---	---						

CLASS 08

				GSS	GSSG	CKL	CLGEYP----	VEQMTTIA	QC	QCI	-----	FC	T	L	C	L	Q	Y	V	E	L	L	I	K	E	G	L	E	T	A	---	---	---	---
				MSRSPDAKE	DP	VECP	LC	MEPL-----	EIDD	I	N	F	F	P	CTCG	---	YQ	I	R	F	C	W	H	R	I	R	T	D	E	N	---	---	---	---
RING024	NM_182757	IBRDC2	(25)	PLITCK	L	CLC----	EQSL	D	K	M	T	L	Q	E	Q	CI	-----	FC	T	A	C	L	Q	Y	M	Q	L	A	I	R	E	G	C	G
RING025	NM_014746	RNF144	(x)	PLVSCK	L	CLGEYPVE----	QMTTIA	QC	QCI	-----	FC	T	L	C	L	Q	Y	V	E	L	L	I	K	E	G	L	E	T	A	---	---	---	---	

CLASS 09

RING026	54467	ANKIB1	(445)	DTSLCD	IC	MC	SISVF-----	EDP	V	D	M	P	C	G	H	D	---	FC	R	G	C	W	E	S	F	L	N	L	K	I	Q	E	G	E	
RING027	NM_153371	LN2	(45)	DDLVC	H	IC	LQPL-----	LQ	P	L	D	T	P	C	G	H	T	---	FC	Y	K	C	L	R	N	F	L	Q	E	K	D	---	---	---	
RING028	NM_015009	PDZRN3	(x)	PDLKCA	L	CH	KVL-----	ED	P	L	T	T	P	C	G	H	V	---	FC	A	G	O	V	L	P	V	V	Q	E	G	---	---	---		
RING029	NM_004295	TRAF4	(x)	RRLLCP	L	CGKPMR-----	EP	V	Q	V	S	T	C	G	H	R	---	FC	D	T	C	L	Q	E	F	L	S	E	G	V	F	---	---	---	
RING030	NM_001033910	TRAF5	(x)	ERYKCA	F	CH	SVL-----	HN	P	H	Q	T	G	C	G	H	R	---	FC	Q	H	C	I	L	S	L	R	E	L	N	T	V	P	---	---
RING031	NM_145803	TRAF6	(x)	SKYEC	P	IC	LMAL-----	RE	A	V	Q	T	P	C	G	H	R	---	FC	K	A	C	I	K	S	I	R	D	A	G	H	---	---	---	
RING032	NM_206835	TRAF7	(x)	VKLCCQ	L	C	CSVF-----	KD	P	V	I	T	T	C	G	H	T	---	FC	R	R	C	A	L	K	S	E	---	---	---	---	---	---		

RING033	NM_031229	UBT13	(x)	EPAECPCVYSLAPG----
RING034	NM_020901	NP_065952.1	(x)	DAESCPICLNAFRDQ-----AVGTPENCAHY-----FCLDCLVEWSKNAN-----SCPVDRTLF (x)
RING035	NM_172071	RC3H1	(x)	DFLSCPICCTQTFDETI---RKPTISLGGGHT---VCKMCLNKLHRRK-----ACPFDDQTTI (x)
RING036	NM_033228	NP_150231.1	(x)	KVLECGVCEDEVFSLQGD---KVPRLLLCGHT---VCHDCLTRLPLHGRAI-----RCPFDRQVT (x)
RING037	MNAB	NM_018835	(x)	EFLSCPICQYNEFDENV---HKPTISLGGGHT---VCKTCLNKLHRRK-----ACPFDDQTAI (x)
RING038	NM_015089	PARC	(x)	RPDHCPVQVSPPLGCD---DDLPSLCMHY---CCKSCWNEYLTRIEQNLVLNC-----TCPDIADCPA (x)
RING039	NM_014248	RBX1	(x)	VVDNCAICRNHIMDL-(16)TVAWGVGNHA---FHFHCISRLKTRQ-----VCPLDNREW (x)

CLASS 10

RING040	NM_147128	ZNRF2	(x)	DAGECATCLEELQQG---DTIARLPCLCI---HKGCIDWFVNR-----SCPEHPSD (x)
RING041	NM_005744	ARIH1	(181)	QDMPCCQICLYLNYPN---SYFTGLECGHK---FMCQCSEYLTTKIMEEGMGHTI-----SCPAHC DI (319)
RING042	NM_032268	NP_115644.1	(x)	DAGECVICLLELLQG---DTIARLPCLCI---HKSCIDSWFVNR-----SCPEHPAD (x)

CLASS 11

RING043	NM_152598	RNF190	(x)	EGDLCRICQIAGGSP---SNPLLEPCGCVGSLQFVHQECLKKWLKVKITSGADLGAVK-----TCCEMCKQGL (x)
RING044		MARCH1	(57)	TQDICRICHCCEGDE---ESPLITPCRCTGTLRFVHQSCHLQWIKSSDTR-----CELCKYDF (159)
RING045	NM_001005415	MARCH2	(58)	DGPFCRICHEGAN-----GECLLSPCGCTGTLGAVHKSCLEKWLSSSNTS-----YCELCHTEF (133)
RING046	NM_178450	MARCH3	(65)	DRPMCRICHEGSS---QEDLLSPCECTGTLGTIHRSCLEHWLSSSNTS-----YELCHFRF (133)
RING047	NM_020814	MARCH4	(157)	RTPLCRICQGPPE---QGELLSPCRCDGSLVKTQHPCLIKWISERGCW-----SCELCYKY (198)
RING048	NM_017824	MARCH5	(9)	LDRSCWVCFATDEDDR---TAEWVRPCRCRGSTKWWHQACLRQWVDEKQRGNSTARV-----ACPCQNAEY (206)
RING049	NM_005885	MARCH6	(4)	EEDICRVCRSEGTP---EKPLYHPCVCTGSIKFIHQECLVQWLKHSRKE-----YELCKHRF (851)
RING050	NM_022826	MARCH7	(547)	EGDLCRICQMAAASS---SNLLIEPCCKTGSLLQYVHQDCMKKWLQAKINSGSSLEAVT-----TELCKEKL (93)
RING051	NM_145021	MARCH8	(75)	SQDICRICQCEGDD---ESPLITPCCHTGSLLHFVHQACLRQWIKSSDTR-----CELCKYEF (161)
RING052	NM_138396	MARCH9	(105)	RTPQCRICQGPPE---QGELLSPCRCDGSLVRC THQPCIRWISERGSW-----SCELCYFKY (187)

CLASS 12

RING053	NM_001144	AMFR2	(336)	NNDDCAICWDSM-----QAARKLPCGHL---FHNSCILRSWLEQDT-----SCPTCRMSL (261)
RING054	NM_016494	NP_057578.1	(x)	AELKCPVCLLEFEEE---ETAIEPCPHHL---FHSSCILPWL SKTN-----SCPLCRYEL (x)
RING055	NM_014648	DZIP3	(1143)	EEPCVICHENLSP---ENLSVLPCA HK---FHAQCIRPWL MQG---TCPTCRLHV (17)
RING056	NM_024539	NP_078815.3	(x)	DGDSCAVCIELYKPN---DLVRILTCNHI---FHKTCVDPMLLEHR-----TCPMCKCDI (x)
RING057	NM_014819	PJA2	(x)	QECCPCICCESEYIKD---DIATELPCHHF---FHKPCVSIWLQKSG-----TCPVCRHF (x)
RING058	NM_144726	NP_653327.1	(x)	HNDICACIQYQDM-----KSAVITPCSHF---FHAGCLKKWLYVQE-----TCP LCHCHL (x)
RING059	NM_194460	NP_919442.1	(x)	SGLECPVCKDDYALG---ERVRQLPCNHL---FHDGCLVPWLQKSD-----SCPVCCKSL (x)
RING060		Q5JUT8	(x)	QEMCCPCICSEYVKG---EVATELPCHHY---FHKPCVSIWLQKSG-----TCPVCRCMF (x)
RING061	NM_005667	RNF103	(x)	HCTECVVCLENFENG---CLLMGLPCGHV---FHQNCIVMWLAGGRH-----CCPVCRWPS (x)
RING062	NM_014372	RNF11	(x)	KIRECVICMMDFVYG---DPIRFLPCMHI---YHLDCIDDLWMRSF-----TCPSCMEPV (x)
RING063	NM_017610	RNF111	(x)	TEEKCTICLSILEEG---EDVRRLPCMHL---FHQVCVDQWLITNK-----KCPICRVDI (x)
RING064	NM_016120	RNF12	(x)	ALKTCSCVITEYTEG---NKLRLKPCSH---YHVHCIDRWLSNS-----TCPICRRAV (x)
RING065	NM_024787	RNF122	(x)	YGQTCVACLED FKGK---DELGVLPQSHA---FHRKCLVKWLEVRK-----VCPMCKNPI (x)
RING066	NM_007282	RNF13	(x)	EYDVCAICLDEYEDG---DKLRILPCSHA---YHCKCVDPMLTKTK-----TCPVCKQKV (x)
RING067	NM_018434	RNF130	(x)	DFDHCAVCIESYKQN---DVVRILPCKHV---FHKSCVDPMLSEHC-----TCPMCKLNI (x)
RING068	NM_139175	RNF133	(x)	NGDSCVTCFERYKPN---DIVRILTCCKHF---FHKNCIDPWLPHG-----TCPICKCDI (x)
RING069	NM_173647	RNF149	(x)	DAENCAVCIENFKVK---DIIRILPCKHI---FHRICIDPMLLDHR-----TCPMCKLDV (x)
RING070		RNF150	(x)	DFDNCAVICIEGYKPN---DVVRILPCRHL---FHKSCVDPMLLDHR-----TCPMCKMNI (x)
RING071	NM_152470	RNF165	(x)	TDEKCTICLSMLEDG---EDVRRLPCMHL---FHQLCVDPWLAMSK-----KCPICRVDI (x)
RING072	NM_015528	RNF167	(x)	QYDVCAICLDEYEDG---DKLRVLPCAHA---YHSRCVDPMLTQTRK-----TCPICKQPV (x)
RING073		RNF24	(x)	LHELCAVCLDFKPR---DELGICPCKHA---FHRKCLIKWLEVRK-----VCP LCNMPV (x)
RING074	NM_022453	RNF25	(x)	PHGQCVICLYGFQEK---EAFTKTPCYHY---FHCCLARYIQHMEQEL (15)-----TKQKAVGVQCPVCREPL (x)
RING075	NM_194332	RNF38	(x)	EQTLGVVCMCDFESR---QLLRVLPCNHE---FHAKCVDKWLKANR-----TCPICRADA (x)
RING076	NM_017763	RNF43	(x)	SAPVCAICLEEFSEG---QELRVISCLHE---FHRNCVDPMLHQHR-----TCP LCMFNI (x)
RING077	NM_014901	RNF44	(x)	EQTLGVVCFSDFEAR---QLLRVLPCNHE---FHTKCVDKWLKANR-----TCPICRADA (x)

RING078	NM_183043	RNF6	(x)	LGKICSVCISDYVTG----	NKLRQLPCMH-----	FHHCIDRLSENC-----	TCFICRQPV (x)
RING079	NM_032431	SYVN1	(x)	MDNVCITCREEMV----	TGAKRLPCNHI-----	FHTSCLRSWQRQ-----	TCPTCRMV (x)
RING080	NM_014455	ZNF364	(x)	MGLECPVCKEDYTV-----	EEVRQLPCNHF-----	FHSSCIYVWLELHD-----	TCPVCRKSL (x)
RING081		ZNRF3	(x)	STSDCAICLEKYIDG----	EELRVIPCTHR-----	FHRKCVDPMLLQHH-----	TCPHCRHNI (x)
RING082	NM_181710	ZNRF4	(x)	HNDLCATCLDEYEEG----	DQLKILPCSHT-----	HCKCIDPWFSSQAPRR-----	SCPVCQKQSV (x)

CLASS 13

RING083	NM_018320	RNF121	(x)	SDSVCACVCGQI--(8)---	IIENTYRLSCNHV-----	FHEFCIRGWCIVGKKQ-----	TCPYCKEKV (x)
RING084	NM_006768	BRAP	(259)	ELPKCTVCLERMDES-----	NGILTTLGNHS-----	FHSQCLQRMDT-----	TCPVCRYCQ (285)
RING085	NM_001002246	ANAPC11	(18)	NDENCGICRMA--(12)---	DDCPLVWGQCSHC-----	FHMHCILKWLHAQQVQQ-----	HCPMCRQEW (4)
RING086	NM_002504	NP_002495.2	(x)	EKYECCVCCELVRVTA----	PVWSCQSCYHV-----	FHLNCIKKWARSPASQADGQSGW-----	RCFACQNVS (x)
RING087	NM_207343	NP_997226.1	(x)	APATCKLCLMCQKLVQP----	SELHPMACTHV-----	LHKECIKFWAQNTND-----	TCPFCTPLK (x)
RING088		Q569I2	(x)	GASSCEICHEVFKS-----	KNVRVLKCGHK-----	YHKGCFKQMLKGQS-----	ACPACQGRD (x)
RING089	NM_014245	RNF7	(x)	ECDTCAICRVQM(12)EDCVV	WVGECHNS-----	FHNCCMSLVVKQNN-----	RCPLCQDQW (x)
RING090	NM_173662	RNF175	(x)	SDNICAVCGQKIIVEL----	(8)TYQLSCNHV-----	FHEFCIRGWCIVGKKQ-----	TCPYCKEKV (x)
RING091	NM_005879	TRAIP	(x)	IRALCTICSDFFDHS-----	RDVAAIHCQHT-----	FHLQCILQWFETAPSR-----	TCPCRIQV (x)
RING092	NM_021729	VPS11	(x)	QKTKCSICNSALE-----	LPSVHFLCGHS-----	FHQHCFESYSESDA-----	DCPTCLPEN (x)
RING093	NM_030936	RNF32	(x)	SVQPCPICKKEEFEL-----	RPQVLLSCSHV-----	FHKACIQAFEFKFTNKK-----	TCPLCRKNQ (x)

CLASS 14

1x4j		GSSGSSGQLPSYRFNPNNHQS		EQTLGVVCMCDF----	ESRQLLRVLPCHNHE-----	FHAKCVDKMLKANR-----	TCPICRADSGPSSG
1xym		AMD		DGVECAVCLAE---	LEDGEEARFLPRCGHG-----	FHAECDVMDLGSHS-----	TCPLCRLTVVV
1x87		GSSGSSGSEPEQVIRKYTEELKVA		PEEDCIICMEKLA(15)PMVVGRLTK	CSHA-----	FHLCLLAMYCNGNKGDSL-----	QCPSCKTIYGEKGTGP(14)
1ldj		KKRFEVKKNNAVALWAWDI		VVDNCAICRNH--(17)---	EECTVAVGVCNHA-----	FHFHCISRLKTRQ-----	VCPLDNREWEFKY
RING094		Q75MM6	(x)	PDEDCIICMEKLS---	(18)GHLTKCSHA-----	FHLCLLAMYCNGNKGDSL-----	QCPSCKTIY (x)
RING095	23220	DTX4	(554)	PDEDCTICME-----	(17)DLVGKLSRGGHV-----	FHIYCLVAMYNNGNKGDSL-----	QCPCTKTIY (148)
RING096	NM_004416	DTX1	(406)	PDEDCTICMERLVTA(15)LVGRLGR	CGHM-----	FHLCLLAMYSNGNKGDSL-----	QCPCTKAIY (145)
RING097	NM_015057	MYCBP2	(x)	ADDMCMICFTEALSA-----	APAIQLDCSHI-----	FHLQCCRRVLENRWLGPRITFGFI-----	SCPICKNKI (x)
RING098	NM_005055	RAPSN	(x)	TELYCGLCGESIGEKN---	SRLQALPCHSI-----	FHLRLQNNGTR-----	SCPNCRRSS (x)

CLASS 15

RING099	NM_015303	KIAA0804	(1251)	KQDYCSICLQYKRRQEMADEI	IVFSCGHL-----	FHSFCLQNKECTVEFEGQTRW-----	TCYKCSSSN (115)
RING100	NM_014396	VPS41	(x)	EENICESCLSP---	(8)-PFSVVVFHCRHM-----	FHKECLPMPSMNSAAQ-----	FCNICSAKN (x)

CLASS 16

RING101	NM_003482	MLL2_D2	(1227)	SLVTCPTCHAPYV-----	EEEDLLIQCRHCERW--	MHAGCESLFTEDDVEQAADGEGF-----	DCVSCQPYV (3977)
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CLASS 17

RING102		RFPL1	(x)	EASSCPVCSDDL-----	EKPMSLECGCA-----	VCFKCIINSLQKEPHGEDL-----	LCCCSMVS (x)
RING103	NM_006604	RFPL3	(x)	EASSCPVCSDDL-----	EKPMSLECGCT-----	VCLKCIINSLQKEPHGEDL-----	LCCCSMVS (x)

CLASS 18

1fbv RING		EMG		TFQLCKICAENDK-----	DVKIEPCGHL-----	MCTSGCLTSQSESGQ-----	GCPFCRCCEIKGTEPIV
1bgr		EEEF		QFLRCQQQCAEA-----	KCPKLLPCLHT-----	LCSGLLEASGM-----	QCPICQAPWPLGADTPAL
RING104	NM_001167	BIRC4	(445)	EEKLCKICMDRN-----	IAIVFVPCGHLV-----	TCKQCAEAVD-----	KCPMCTYVI (9)
RING105	NM_033341	BIRC8	(184)	EEKLCKICMDRH-----	IAVVFIPCGHLV-----	TCKQCAEAVD-----	RCPMCSAVI (9)
RING106	NM_001166	BIRC2	(566)	EERTCKVCMDE-----	VSVVFIPCGHLV-----	VQECAPSLR-----	KCPICRGII (9)
RING107	NM_001165	BIRC3	(552)	EERTCKVCMDE-----	VSVVFIPCGHLV-----	VCKDCAPSLR-----	KCPICRSTI (9)
RING108	NM_023076	NP_075564.2	(x)	RAKQCVACRERA-----	HGAVLRPCQHII-----	LCEPCAATAP-----	ECPYCKGQP (x)
RING109	NM_194271	NP_919247.1	(x)	DDSLCRICMDAV-----	IDCVLLECGHNV-----	TCTCKGKRMS-----	ECPICRQYV (x)
RING110		NP_588609.1	(x)	RENCSSLCDEV-----	ADTQLKPCGHS-----	LQMDALQLE-----	TCPLCRKEI (x)

RING111	NM_006568	CGRRF1	(269)	NSKDCVVCQNGT-----VNWVLLPCRHTC-----LDGCVKYFQ-----QCPMCRQFV (20)
RING112	NM_015246	MGRN1	(273)	NSNECVVCLSDL-----RDTLILPCRHL-----LCTSCADTLRYQAN-----NCPICRLPF (256)
RING113	NM_032015	RNF26	(x)	ERKKCVICQDQS-----KTVLLPCRHL-----LQQAETEILMRHPVYHR-----NCPICRRGI (x)
RING114	NM_052916	RNF157	(x)	NSAECVVCCLSDV-----RDTLILPCRHL-----LONTCADTLRYQAN-----NCPICRLPF (x)
RING115	NM_002675	PML	(x)	QFLRCQQCQAEA-----KCPKLLPCLHT-----LCSGCLASGM-----QCPICQAPW (x)
RING116	BIRC7	NM_139317	(247)	EERTCKVCLDRA-----VSIVFVPCGHL-----VCAECAPGLQ-----LCPICRAPV (9)
RING117	CBL	867	(376)	TFQLCKICAEAD-----KDVKIEPCGHL-----MCTSCILTSQSESGQ-----GCPFCRCEI (483)
RING118	CBL	NM_012116	(346)	TFELCKICAESN-----KDVKIEPCGHL-----LCSCLAAVQHSDSQ-----TCPFCRCEI (81)
RING119	Q68CY2		(x)	TFQLCKICAEAD-----KDVKIEPCGHL-----MCTSCILTSQSESGQ-----GCPFCRCEI (x)
RING120	NM_015436	RCHY1	(x)	SRQNCPICLDIHTSR---VVAHVLPCHL-----LHRTCYEEMLEKY-----RCPICMHA (x)
RING121	NM_032588	TRIM63	(x)	KQLICPICLEMT-----KPVVILPCQHN-----LGRKCANDIQAANPYWTSRGSSVSMGGRF---RCPICRHEV (x)
RING122		Q7Z4K7	(x)	EELKCPVCGSLF-----REPILPCSHN-----VCLPCARTIAVQTPD(112)-----SSSSITCPQCHRSA (x)
RING123	NM_000381	MID1	(5)	SELTCPICLLELF-----EDPLLLPCAHS-----LCFNCAHRIILVSHCATNESVESITAF-----QCPICRHI (604)
RING124	NM_032546	NP_115935.3	(x)	KQLICPICLEMT-----KPVVILPCQHN-----LGRKCANDIQAANPYWTSRGSSVSMGGRF---RCPICRHEV (x)
RING125	NM_184086	NP_908974.1	(x)	KQLICPICLEMT-----KPVVILPCQHN-----LGRKCANDIQAANPYWTSRGSSVSMGGRF---RCPICRHEV (x)
RING126	NM_152616	TRIM42	(x)	NHLNCPMCSRLR-----LHSFMLPCNHS-----LCEKCLRQLQKHAETENFFIL-----ICPVCDRSH (x)
RING127	NM_025188	TRIM45	(x)	GKTHCPICLGLF-----KAPRLLPCLHT-----VCTTCLLEQLEPFSVVDI(20)-----SLQSQIGILCPVCDQV (x)
RING128	NM_018700	TRIM36	(x)	RELICPACKELF-----THPLILPCQHS-----ICHKCKELLTLDSDFNVDGSD(34)---RTTVFPCPCEHDV (x)
RING129	NM_012210	TRIM32	(x)	VLEECPICMESFTEEQ---LRPKLLHCGHT-----ICRQCILEKLASSINGV-----RCPICRHEV (x)
RING130	NM_005762	TRIM28	(x)	LLEHCGVCRERLRPE---REPRLPCLSH-----ACSACLGPAAPAAAANSSGDDGAAGDGTVV---DCPVCKQQC (x)
RING131	NM_152617	RNF168	(x)	SECQCGICMEIL-----VEPVTLPCHN-----LCKPCFQSTVEKASL-----CCPFCRRRV (x)
RING132		RNF169	(x)	EESGCAGCLEPP-----GEAAALPCGHS-----LCRGCAQRAADAAGP-----GCPICRARG (x)
RING133	NM_173557	RNF152	(x)	SLLECKICFNYSRPR---RRPKLLDCKHT-----CQSVCLMRTSQKDV-----RCPICRGT (x)
RING134	NM_025058	TRIM46	(x)	KELLCPVCEMY-----KQPLVLPCHN-----VQACAREVLGQGGYI(56)-----QVIMFPCPACQGDV (x)
RING135	NM_052978	TRIM9	(x)	EELKCPVCGSFY-----REPILPCSHN-----LQACARNILVQTPES(73)-----APVPRNSCITCPQCHSL (x)

CLASS 19

RING136	NM_020774	MIB1_D2	(861)	KIEECVVCSDKK-----AAVLFPCHGMC-----ACENCANLKM-----KCVQCRVAV (102)
RING137	NM_080875	MIB2_D1	(885)	EAAECVVCSELA-----LLVLFSPCHRT-----VCEECARRMK-----KICRCQVVV (85)
RING138	NM_014948	UBOX5	(x)	LGPECASCKRVSPYFKK---EPVYQLPCGHL-----LCRPLGLEKQRLPM-----TCTACQRPV (x)
RING139	NM_020774	MIB1_D1	(814)	TLEECMVCSDMK-----RDTLFGPCGHIA-----TSLCSPRVK-----KCLICKEQV (149)
RING140	NM_022064	RNF123	(x)	EEDLCPICAYHP-----ISAVFPCHGK-----SKACINQLMNNK-----DCFFCKTTI (x)

CLASS 20

1z6u			(41)	QSFMCVCCQELV-----YQPVTTECFHN-----VCKDCILQRSFKAQVF-----SCPACRHLGQNYIMIP(19)
2c12				ECPICMESFTE---EQLRPKLLHCGHT-----ICRQCILEKLASSINGV-----RCPICRQAI(20)
1q29				M DDQGCPRCKTT---KYRNPCLKLMNVNCGHT-----LCESCVDLLFVRGAG-----NCPICGTPLRKSNFRVQLFED
RING141	NM_020774	MIB1_D3	(958)	EQTMCPCVCLDR-----LKNMIFLCGHG-----TQCLCADTMS-----ECPICRQAI (7)
RING142	NM_024544	NP_078820.1	(x)	LKSACVVCCLSSF-----KSCVFLCCHVC-----SCTECYRALPEPK-----KCPICRQAI (x)
RING143	NM_015435	RNF19	(x)	DFIECPICLLRHSKD---RFPDITMCHHR-----SCVDCILRQYLRIEISESRVNI-----SCPECTERF (x)
RING144	NM_178167	ZNF598	(x)	EGGSCVLCCLGD-----LEATAGRCCHP-----VQYRCSFKMRVLCEQR-----YCAVCREEL (x)
RING145	NM_017999	RNF31	(x)	LAQECACVCGWALPHN---RMQALTSCECT-----ICPDCFRYHIALKEKHITDM-----VCPACGRPD (x)
RING146		RNF182	(x)	DELECKICYNRYNLKQ---RKPKVLECHHR-----VCAKCLYKIIDFGDSPQGI-----VCPICRGT (x)
RING147	NM_006510	RFP	(x)	QETTCCVCLQYF-----AEPMLDCHGHN-----ICCACLARCYGTAETNV-----SCPICRET (x)
RING148	NM_001005373	LRSAM1	(670)	QASECVVCLERE-----AQMIFLNCCHVC-----CQVCCQPLR-----TCLICRQDI (10)
RING149	NM_080875	MIB2_D2	(964)	ERITCPICIDS-----HILRVFCHGHT-----ACAPCGSALS-----ACPICRQPI (8)
RING150	NMAT1	NM_002431	(x)	DDQGCPRCKTTKYRNP---LKLNVNCGHT-----LCESCVDLLFVRGAG-----NCPICGTP (x)
RING151	NEURL	NM_004210	(x)	WSDECTICYEHA-----VDTVIYTCGHMC-----LCYACGLRLKALHA-----CCPICRRPI (x)
RING152	NHLRC1	NM_198586	(x)	SLLECKVCFEKFGRHQ---RRPRNLSCGHV-----VCLACVAALAHPTLAL-----ECPICRRAC (x)
RING153	NM_031297	NP_112587.1	(x)	EPLECPICGHSYNVTQ---RRPRVLSCLHS-----VCEQCLQILYESCPKYKFI-----SCPICRET (x)

RING154	NP_112587.1	(x)	EPLECP T GHSYNVTQ---RRPRVLS L HS-----V E Q C L Q ILY E SCP K YKFI-----S C P T CRRET (x)
RING155	NM_001005207 TRIM37	(x)	EVFR F CI C ME-----KLRDAR L CP H CSKL--C F S C IR R LT E QRA-----Q C P H CRAPL (x)

CLASS 21

1c1c			MAT VAERCP I CL E DPS-----NYSMALP C LHA-----FCYVC I TR I RQNP-----TCPLCKVPVESV(15)
RING156	NM_000465 BARD1	(45)	KLLRCS R OT N ILR-----EPV C LGG E HI-----FC S NCVSD C IGT-----GCPVCYTPA (687)
RING157	NM_016561 BFAR	(29)	SEFSCH C YD I L-----VNPTTLN C GHS-----FC R HC L AL W ASSKKT-----ECPE C REKW (373)
RING158	NM_007296 BRCA1	(19)	KILECP I CL E LI-----KEP V STK C DHI-----FC K FC M L L L N QKKGPS-----QCPLCK N DI (1795)
RING159	NM_024814 CBLL1	(104)	PVHFC D K C GL P IK-----IYGR M IP C KHV-----FCY D CAIL E KKGDK-----MCPG C SDPV (339)
RING160	NM_178502 DTX3	(159)	QESTCP I CL E GIQ-----NAKTLEK R HS-----FC E GC I TR A L Q VKK-----ACPM C GRFY (141)
RING161	NM_138287 DTX3L	(556)	EKGIC V CM D TIS-----NKKVL P K C KHE-----FCAP C IN K AMSYKP-----ICPT C QTSY (137)
RING162	NM_152271 LONRF1_D2	(474)	SDFECS L CM R LF-----FEPVTT P CGHS-----FC K NC L ER C L D HAP-----YCP L CKESL (295)
RING163	NM_198461 LONRF2	(201)	TDFECAL C M R LL-----FEPVTT P CGHT-----FC L K C ER C L D HAP-----HCP L CKDKL (264)
RING164	NM_013446 MKRN1	(276)	KDMVCG C MEV---(8)ERR F GILSN C NHT-----YCL K CIR K W S AKQFESKIIK-----SCP C RITS (144)
RING165	NM_014160 MKRN2	(233)	QDKVCS C MEV---(8)ERR F GILSN C NHT-----YCL S CIR Q W R CAKQFENPIIK-----SCP E CRVIS (121)
RING166	NM_005664 MKRN3	(306)	MDKVCG C MEV---(8)DR R FILSN C NHS-----FCIR C IR R W S ARQFENRIVK-----SCP Q CRVTS (139)
RING167	MKRN4	(x)	KDKVCG C MEV---(8)EH R FILSN C NHT-----FC L K C IR K W S AKEFESRIVK-----SCP Q CRITS (x)
RING168	NM_001013734 NP_001013756.1	(x)	AELSCP V CL D FF-----SCSISLS C THV-----FC S CI Q RY I LENHDFRA-----MCP L CRDVV (x)
RING169	NM_019038 NP_061911.2	(x)	AEIQCT R CG R VRSS---GH H CEL Q CGHA-----FC E LC L MT E CTTI-----ICPD C EVAT (x)
RING170	NP_065921.2	(x)	DLLECP V CL E RLD-----ASAKVLP C QHT-----FC K R C L L GIVGSRNEL-----RCPE C RTL (x)
RING171	NM_020914 NP_065965.3	(x)	GIQPC S CL G DA-----KDPVCL P QDHV-----HCL R C L RAW F ASEQM-----ICPY C LTA (x)
RING172	NM_138700 NP_619645.1	(x)	EEGV C IQ C ESL-----KEAV T SGHL-----FC R VC L Q H VEKASASGVF-----CCPL C RKPC (x)
RING173	NM_172016 NP_742013.1	(x)	VEASCS V CL E YL-----KEP V IE C GHN-----FC K AC I TR W EDLERDF-----PCPV C RKTS (x)
RING174	NM_178556 NP_848651.2	(x)	EELTC F CL D YF-----SSP V TTE C GHS-----FC L V C L L RS W EEHNTPL-----SCP E CWRTL (x)

CLASS 22

RING175	NM_024778 NP_079054.3	(x)	DGFKCR K CHGFL-----SDPVLS C GHT-----FC K LC L ERGRAADR-----RCAL C GVKL (x)
RING176	NM_194439 NP_919420.1	(x)	NWVFC N R F QPPHRT---SC F SL T NC G HV-----YD A CL G KGKN-----EC L ICKAPC (x)
RING177	Q7Z337	(x)	AKYLCS A C R NVL-----RRPF Q AQ C GHR-----YCS F LA S IL S SGPQ-----NC A ACVHEG (x)
RING178	NM_145725 TRAF3	(x)	DKYKCE K CHLVL-----CSP K QTE C GHR-----FC S CA A ALL S SSP-----KCT A CQ (x)
RING179	NM_018683 ZNF313	(x)	GRFTCP V CL E VY-----EK P VQ V CGHV-----FC S AC L Q E CL K PKKP-----VCGV C RSAL (x)
RING180	NM_152271 LONRF1_D1	(118)	GLLRCL G RGFL-----SEP V TV P CGHS-----YCR R CL R REL R A-----RCRL C RDRL (651)
RING181	Q3C1W6	(x)	RELTCP I CM N YF-----IDP V TIE C GHS-----FC R PC F YLN W QD M AVL(57)-----DKS L L L CSNSQ (x)
RING182	TRIM48	(x)	RELTCP I CM N YF-----IDP V TID C GHS-----FC R PC F YLN W QD I PILT-----QCF E CIKT (x)
RING183	NM_020358 TRIM49	(x)	GELIC P CM N YF-----IDP V TID C GHS-----FC R PC F YLN W QD I PFL-----VQ C SECTKST (x)
RING184	XP_062300.5	(x)	RELIC P CM N YF-----IDP V TID C GHS-----FC R PC F YLN W QD M AVLA-----Q C SK C KKT (x)
RING185	XP_208060.3	(x)	RELIC P CM N YF-----IDP V TID C GHS-----FC R PC F YLN W KD S PFLV-----Q C SECTKST (x)

CLASS 23

2ck1			SLH SELMCP I CL D MLK-----NTMT T KE C LHR-----FC A DC I ITALRSGNK-----ECPT C RKK(21)
1rmd		(21)	KSIS C Q C EHIL-----AD P VET S CKHL-----FC R IC L RLCLK V MGS-----YCP S CRYP C FPTD L ESPVKS(37)
1jw7	MDLSALRVEEVQNVINAMQ		KILECP I CL E LI-----KEP V STK C DHI-----FC K FC M L L L N QKKGPS-----QCPLCK N DITK R S L QESTRF(24)
RING186	NM_022457 RFWD2	(x)	RNFVCP C FD M I-----EEAY M TK C GHS-----FCY K C I H Q SL E DNN-----RC P KCN V VV (x)
RING187	NM_017831 RNF125	(x)	TSFDCA V C L EV L -----HQ P VRT R CGHV-----FC R SC I AT S L K NNKW-----TCPY C RAYL (x)
RING188	NM_030963 RNF146	(x)	TVPECA C L Q TC-----V H PVSL P CKHV-----CY L C V K G ASWLGK-----RCAL C R Q EI (x)
RING189	NM_145051 RNF183	(x)	LEAEC P VC W NP F NNTF---HT P K M L D CC H S-----FC V EC L A L SL V TPARRRL-----LCPL C R Q PT (x)
RING???	NM_198853 TR50C	(x)	DWLQ C PC L EV F -----KE S L M L Q CGHS-----Y C K C L V SL S Y H LDTKV-----RC P MC W QVV (x)
RING190	NM_033229 TRIM15	(x)	ELPA C T L C A G P L-----ED A VT I PC G HT-----FC R L C L P ALS Q MA Q SSGKIL-----LCPL C Q E EE (x)
RING191	NM_003141 TRIM21	(x)	EEV T CP I CL D PF-----VE P VS I EC G HS-----FC Q EC I S Q V G KGGGS-----VCP V C R Q R F (x)
RING192	NM_003449 TRIM26	(x)	EEV T CS I CL D YF-----R D P V TID C G H V-----FC R SC T TD V R P IS G SRP-----VCP L CK K PF (x)

RING193	NM_007028	TRIM31	(x)	EEVICP	ICLDIL	-----	QKPTID	CGHN	-----	FLKCI	TQIGET	SCGFF	-----	KCP	LC	KTSV	(x)
RING194	NM_178125	TRIM50A	(x)	DWLQCP	ICLEVF	-----	KEPLML	QCGHS	-----	YCKGCL	VLS	SCHLDAEL	-----	RCP	VCR	QAV	(x)
RING195	NM_198924	TRIM50C	(x)	DRLQCP	ICLEVF	-----	KESLML	QCGHS	-----	YCKGCL	VLS	SYHLDTKV	-----	RC	PM	CWQVV	(x)
RING196	NM_016271	RNF138	(x)	DDFYCP	VCQEVLK	-----	TPVRTT	ACQHV	-----	FORKCF	LTA	MRESGA	-----	HC	PL	CRGNV	(x)
RING197	NM_178532	RNF180	(x)	DSYICA	VCLDVVF	-----	NPYMCY	PCHHI	-----	FCPECL	RTLA	KDNPSST	-----	PC	PL	CR	TII
RING198	NM_001008274	NP_001008275.1	(x)	QELSCP	ICLQLF	-----	DAPVTA	ECGHS	-----	FORACL	GRV	AGEPAADGTV	-----	LC	PC	CAQPT	(x)
RING199	NM_000448	RAG1	(x)	RYLTCP	ICLEVF	-----	ADPVET	NCQHV	-----	FCRVCL	LRCL	KVMGS	-----	YC	PS	CR	YPC
RING200	NM_019062	RNF186	(x)	CDLECL	VCREPYSCP	-----	RLPKLL	ACQHA	-----	FCACIL	KL	LLCVQDNTWSI	-----	TC	PL	CR	KVT
RING201	NM_007212	RNF2	(x)	SELMCP	ICLDMLK	-----	NTMTTK	ECQHR	-----	FCADCI	IT	ALRSGNK	-----	EC	PT	CR	KKL
RING202	NM_001007278	RFP2	(x)	EDLTCP	ICCSLF	-----	DDPRVL	PCSHN	-----	FCCKCL	EGIL	EGSVRNSLWR	-----	PAP	FK	CR	CRKET
RING203	NM_002931	RING1	(x)	SELMCP	ICLDMLK	-----	NTMTTK	ECQHR	-----	FCSDCI	VT	ALRSGNK	-----	EC	PT	CR	KKL
RING204		RKHD1	(x)	LARECV	VCAAGE	-----	VMAALV	PCGHN	-----	FCMDC	AV	RICGKSEP	-----	EC	PA	CR	TPA
RING204	NM_016626	RKHD2	(x)	RKHD	CVICFENE	-----	VIAALV	PCGHN	-----	FCMEC	AN	KICEKRT	-----	SC	PC	VQ	TAV
RING206	NM_032246	RKHD3	(x)	GSRD	CVCFESE	-----	VIAALV	PCGHN	-----	FCMEC	AN	RIKES	-----	EC	PC	VQ	TAV
RING207	NM_178841	RNF166	(x)	AQYT	CPICLEVYH	-----	RPVAGS	CGHT	-----	FCGEC	IQ	PCQVPS	-----	LC	PL	CR	LFP
RING208	NM_030961	TRIM56	(x)	DFLACK	ICLEQL	-----	RAPKTL	PCQHT	-----	YQDCL	LA	QADGGRV	-----	RC	PE	CR	ETV
RING209	NM_173082	SHPRH	(x)	NPEPCP	ICARQLG	-----	KQWAVL	TCGHC	-----	FCNECI	SI	IIIEQYSVGS	-----	KC	AI	CR	QTT
RING210	NM_003071	SMARCA3	(x)	SDEE	CAICLDSL	-----	TVPVIT	HCQHV	-----	FCKPCI	ICQ	VIQNEQPHA	-----	KC	PL	CR	NDI
RING211	NM_173084	TRIM59	(x)	RELTCP	ICYSIF	-----	EDPRVL	PCSHT	-----	FCRNCI	LENIL	QASGNFYIWRPLRIPL	-----	KC	PC	CR	SIT
RING212	NM_014868	RNF10	(x)	EVPSCP	ICLYPP	-----	TAAKIT	TRCGHI	-----	FCWACL	IL	HYLSSEKTS	-----	KC	PI	CR	YSSV
RING213	NM_006978	RNF113A	(x)	IPFKCF	ICRQSF	-----	QNPVVT	KCRHY	-----	FCESCA	LQ	HFRTTP	-----	RC	YV	CD	QQT
RING214	NM_178861	RNF113B	(x)	IPFRCF	ICRQAF	-----	QNPVVT	KCRHY	-----	FCESCA	LE	HFRTATP	-----	RC	YV	CD	QQT
RING215		PCGF5	(x)	PIYITCY	ICKGYLI	-----	KPTT	VTECLHT	-----	FCKTCI	Q	HYHEDSN	-----	DC	PR	CR	GNV
RING216	NM_001011663	PCGF6	(x)	PYILCS	ICKGYLI	-----	DATTIT	ECQHT	-----	FCKSCI	V	RRHYYSN	-----	RC	PK	CR	NI
RING217	NM_032673	PCGF1	(x)	EHIVCC	ICAGYFV	-----	DATTIT	ECQHT	-----	FCKSCI	V	KYLQTSK	-----	YC	PM	CR	NI
RING218	NM_007144	PCGF2	(x)	PHLMCA	ICGGYFI	-----	DATTIT	ECQHT	-----	FCKTCI	V	RYLETNK	-----	YC	PM	CR	NI
RING219	NM_006315	PCGF3	(x)	AHITCR	ICSGYLI	-----	DATTIT	ECQHT	-----	FCRSCI	V	KYLEENN	-----	TC	PT	CR	NI
RING220	NM_005180	PCGF4	(x)	PHLMCV	ICGGYFI	-----	DATTIT	ECQHT	-----	FCKTCI	V	RYLETNK	-----	YC	PM	CR	NI
RING221	NM_002617	PEX10	(x)	RNP	LCTCLEER	-----	RHPTAT	PCGHL	-----	FCWECI	TA	WCSKA	-----	EC	PL	CR	EKF
RING222		Q8N7D0	(x)	VDDICS	ICQAEF	-----	QKPI	LLICQHI	-----	FCCEC	MT	LWFNREK	-----	TC	PL	CR	TVI
RING223	NM_020165	RAD18	(x)	DLRLCG	ICFEYFN	-----	IAMI	IPQCSHN	-----	YCSCL	Q	DFLSYK	-----	TQ	CR	PT	CCVT
RING224	NM_015431	TRIM58	(x)	EDARCP	VCLDFL	-----	QEPVSV	DCGHS	-----	FCRLCI	SE	FCESDGAQGGVY	-----	AC	PC	CR	GP
RING225	NM_152267	RNF185	(x)	STFECN	ICLDTA	-----	KDAVIS	LCGHL	-----	FCWPCL	HQ	WLETRPNRQ	-----	VC	PC	CR	KGI
RING226	NM_006778	TRIM10	(x)	DEVNCP	ICQGT	-----	REPVTI	DCGHN	-----	FCRACL	TRY	CEIPGPDLEES	-----	TC	PL	CR	KEP
RING227		TRIM2	(x)	QFLICS	ICGLERY	-----	KNPKVL	PCQHT	-----	FCERCL	Q	NYIPAHS	-----	SC	PC	CR	QTS
RING228	NM_006458	TRIM3	(x)	QFLVCS	ICLDYR	-----	QCPKVL	PCQHT	-----	FCERCL	Q	NYIPAHS	-----	SC	PC	CR	QTS
RING229		RNF151	(x)	SNFVCS	VCHGVL	-----	KRPARL	PCSHI	-----	FCCKCI	IL	RLARQK	-----	TC	PC	CR	KEV
RING230	NM_007218	RNF139	(x)	INDVCS	ICQHEFT	-----	TSARIT	PCNHY	-----	FCALCL	RL	WLYIQD	-----	TC	PM	CR	QKV
RING231	NM_183399	RNF14	(x)	KLFLCS	ICFCEKLS	-----	ECMYFL	ECGRHV	-----	YCKACL	K	QDFEIQIRDGQV	-----	QC	LN	CR	PEPK
RING232	NM_016422	RNF141	(x)	DEEECC	ICMDG	-----	RADLIL	PCQHS	-----	FCQKCI	Q	DKWSDRHR	-----	NC	PI	CR	LQM
RING233	NM_194359	RNF41	(x)	EDLICP	ICSGVLE	-----	EPVQAP	HCQHA	-----	FCNACI	T	QWFSQQQ	-----	TC	PC	CR	SVV
RING234	NM_006913	RNF5	(x)	ATFECN	ICLETA	-----	REAVSV	PCGHL	-----	FCWPCL	HQ	WLETRPERQ	-----	EC	PC	CR	KGI
RING235	NM_003958	RNF8	(x)	NELQCI	ICSEYF	-----	IEAVTL	NCQHS	-----	FCSYCI	IN	WMKRKI	-----	EC	PI	CR	KDI
RING236	NM_005802	TOPORS	(x)	PDSKCP	ICLDRFD	-----	NVSYLD	RCQHL	-----	FCFRCI	Q	DFWRLQAKET	-----	EC	PL	CR	KPF
RING237	NM_032322	RNF135	(x)	DDLGC	ICQGLL	-----	DWPATL	PCGHS	-----	FCRHCL	EA	LGARDARRW	-----	AC	PT	CR	QGA
RING238		RNF187	(x)	AEAACA	ICQRA	-----	REPVR	ADCGHR	-----	FCRACV	VR	FWAEDGPF	-----	PC	PE	CR	ADD
RING239		Q8N5G9	(x)	TDMYCP	ICLHQA	-----	SFPVET	NCGHL	-----	FCGACI	IA	WRYGSLGAI	-----	SC	PI	CR	QTV
RING240	NM_182985	RNF36	(x)	MELHCP	ICLNDWF	-----	RDPLML	SCGHN	-----	FCGACI	Q	DFWRLQAKET	-----	FC	PE	CR	KMLC
RING241	NM_025236	RNF39	(x)	QLATCP	ICGGSF	-----	EDPVLL	ACQHS	-----	FCRACL	ARR	GTTPATGTEASPT	-----	AC	PC	CR	GLPC
RING242	NM_145214	TRIM11	(x)	EEATCA	ICLDYF	-----	TDPVMT	DCGHN	-----	FCRECI	IR	RCWGQPEGPY	-----	AC	PE	CR	RELS
RING243	NM_001024940	TRIM17	(x)	EEATCS	ICLDYF	-----	TDPVMT	DCGHN	-----	FCRACI	Q	LSWEKARGKKGRKRKGSF	-----	PC	PE	CR	REMS

RING244	NM_005082	TRIM25	(x) EELSCSICLEPF-----KEPVTTPCGHN-----FCGSCINETWAVQGSPY-----LCPQCRVAVY (x)
RING245	NM_015066	TRIM35	(x) EELLCAVCYDPF-----RDAVTLRCGHN-----FCRGCVSRCEVQVSP-----TCPVCKDRA (x)
RING246	NM_033017	TRIM4	(x) EELTCPICLDYF-----QDPVSIIECGHN-----FCRGCLHRNMAPGGGPF-----PCPECRRHPS (x)
RING247	NM_138800	TRIM43	(x) KELTCVTCNLNYL-----VDPVTICCGHS-----FCRPCLCLEEAQSPA-----NCPACREPS (x)
RING248	NM_033452	TRIM47	(x) GPFSCPICLEPF-----REPVTLP CGHN-----FCLACLGALPHRGASGAGGPGGAA-----RCPLCQEPF (x)
RING249	NM_032765	TRIM52	(x) EEAVCAICLDYF-----KDPVSISCGHN-----FCRGCVTQLWKEDEEDQNE(119)----LPGQFTCPQCRKSF (x)
RING250	NM_152620	TRIM60	(x) EESSCPICLEYL-----KDPVTINCGHN-----FCRSCLSVSKDLDDTF-----PCPVCRFCF (x)
RING251	NM_018207	TRIM62	(x) DELLCSICLSIY-----QDPVSLGCEHY-----FCRRCTEHWVRQEAQGAR-----DCPECRRTF (x)
RING252	NM_173547	TRIM65	(x) EKLTCAICLGly-----QDPVTLP CGHN-----FCGACIRDMWDRCGK-----ACPECREPF (x)
RING253	NM_018073	TRIM68	(x) EEVACPICMTFL-----REPMSIDCGHS-----FCHSCLSGLEIPGESQNWGY-----TCPLCRAPV (x)
RING254	NM_203294	TRIM7	(x) GEATCSICLELF-----REPVSVECGHS-----FCRACIGRCWERPGAGSVGAATRAPPFPL----PCPQCREPA (x)
RING255	NM_030912	TRIM8	(x) EELICPICLHVF-----VEPVQLPCKHN-----FCRGCTGEAWAKDSGLV-----RCPECNQAY (x)
RING256		XP_371714.1	(x) AEASCPICLDYL-----KDPVTISCGHN-----FCLSCIIMS KDLHDSF-----PCPFCHFCC (x)
RING257		XP_373039.1	(x) AEAKCSICLDYL-----SDPVTIECGHN-----FCRSCIQQSWLDLQELF-----PCPVCRHQ (x)
RING258		TRIM38	(x) EEATCSICLSLM-----TNPVSIINGHS-----FCHLCITDFEKNPSQKQLRQETF-----CCPQCRAPF (x)
RING259	NM_201627	NP_963921.1	(x) EEAVCAICLDYF-----TDPVSIICGHN-----FCRVCTQLWGGDEEDR(123)-----CFTCPQCRKSF (x)
RING260	NM_019592	RNF20	(x) ARLTCPCCNMRK-----KDAVLTKECFHV-----FCFECVTRYDTRQR-----KCPKCNAAF (x)
RING261	NM_014771	RNF40	(x) ARLTCPCCNTRK-----KDAVLTKECFHV-----FCFECVRGRYEARQR-----KCPKCNAAF (x)
RING262	NM_152550	SH3RF2	(x) DLLECPVCFEKLD-----VTAKVLPQHT-----FCKPCLQRVKAHKEL-----RCPECRTPV (x)
RING263	NM_000318	PXMP3	(x) SGKECALCGEWP-----TMPHTIGCEHI-----FCYFCAKSSFLFDVYF-----TCPKCGTEV (x)
RING264	NM_002938	RNF4	(x) GTVSCPICMDGYSEIVQNGRLIVSTEGHV-----FCSQCLRDSLKNAN-----TCPTRCKKI (x)
RING265	NM_033034	TRIM5	(x) EEVTCPICLLELL-----TQPLSLDCGHS-----FCQACLTANHKKSM LDKGES-----SCPVCRI (x)
RING266	NM_001003818	TRIM6	(x) EEVTCPICLLELL-----TEPLSIDCGHS-----FCQACITPNGRESVIGQEGE-----SCPVCQTSY (x)
RING267	NM_007148	ZNF179	(x) ELPTCSICLERL-----RDPISLDCGHD-----FCIRCFSTHRLPGCEPP-----CCPECRKIC (x)
RING268	NM_152577	ZNF645	(x) PIHFCDKCDLPIK-----IYGRIIPCKHA-----FCYHCANLYDKVG YK-----VCPRCRYPV (x)
RING269	NM_015905	TRIM24	(x) LLDTCAVCHQNIQS-----RAPKLLPCLHS-----FCQRCLPAPQRYLMLPAPMLG(24)----VGVI RCPVCSQEC (x)
RING270	NM_015906	TRIM33	(x) LLDTCAVCQSLQSRRE--AEPKLLPCLHS-----FCLRLCPERQLSVPIPGGSNGDIQQVGVI---RCPVCRQEC (x)
RING271	NM_207396	NP_997279.1	(x) HPLVCPICLHVQY-----ERPCLLDGCFHD-----FCAGCLRGRATDGR L-----TCPLCQHQT (x)