

Table S1. SUMOplot analysis for Kctd family members.

	No.	Pos.	Group	Score		No.	Pos.	Group	Score	
KCTD1	1	K860	PSVIR IKQE PLD	0.94	KCTD17	1	K54	TLCRE QKSF LSRLC	0.15	
	2	K527	QVGPD VKSE AAPKR	0.93		KCTD18	1	K49	SGRFP LKTD ESGAC	0.91
	3	K572	VVVVS VKHD PLPLL	0.93			2	K188	HSKGI FKRE AGNNV	0.85
	4	K736	LEMER WKQD RETGR	0.64			3	K5	MEG HKAE BEVLD	0.52
	5	K721	LLYEE AKYF QLQPM	0.44			4	K369	KVLLS DKKP TPQRV	0.39
	6	K269	LAAVI RKLE EQGAG	0.44		KCTD19	1	K875	LAITG FKDD RHTQE	0.85
KCTD2	1	K209	TMSDG WKFE QLISI	0.64	2		K145	PSEFP IKSP AFTGL	0.84	
	2	K113	PELDS DKDE TGAYL	0.50	3		K296	ALGLL VKYP DSALG	0.82	
KCTD3	1	K299	ATSHT GKVG VWNAV	0.50	4		K416	TLQTL LKYP ELLSN	0.80	
	2	K805	PSPRH KKSD SSGQE	0.48	5		K106	QTLDN LKEG KHHLR	0.73	
	3	K344	YYIDM QKFP LRMKD	0.39	6		K184	PLDLV AKYP SLVTE	0.69	
	4	K769	GFLGR KKVP YLASS	0.37	7		K355	LCAFL DKRD ITYEP	0.50	
KCTD4	1	K201	QFKYF IKSE NGTRL	0.94	8		K621	TINLT QKSE TKDPP	0.50	
	2	K211	GTRLV LKED NTFVC	0.91	9		K155	FTGLH DKAP LGLMD	0.39	
	3	K224	CTLET LKFE AIMMA	0.91	10		K695	HSTAS EKDP GPQAG	0.39	
	4	K233	AIMMA LKCG FRLLT	0.73	11		K710	GAGAK DKGP EPTFK	0.39	
	5	K197	SNIQ FKYF IKSEN	0.50	12		K838	MDSIR QKDP KAITA	0.39	
KCTD5	1	K180	TMSDG WKFE QLVSI	0.64	13		K456	NFLRL GKLF LPSEF	0.32	
	2	K84	PDLDS DKDE TGAYL	0.50	14		K897	TLPFA RKYG RCMDL	0.27	
	3	K67	TLCRD PKSF LYRLC	0.26	15		K862	TLHIS PKQF VVDLL	0.26	
KCTD6	1	K84	TLPLD FKEF DLLRK	0.50	KCTD20	1	K252	IMVGC AKKG ERECH	0.62	
	2	K234	FCRLA RKTD D	0.44		2	K161	FTRPN EKGE YEIAE	0.50	
KCTD7	1	K148	ENMQP LKGE KVRQA	0.91		3	K357	IQMSW EKEE GKSRRH	0.50	
	2	K194	LKVCV FKEE MPITP	0.85		4	K253	MVGCA KKGE RECHI	0.48	
KCTD8	1	K330	QKIVS PKQE HEDRK	0.61		5	K233	SNDGA HKQF DHYLE	0.17	
	2	K337	QEHEd RKHD KVTDK	0.44	KCTD21	1	K36	GAMFS GKMP TKRDS	0.57	
	3	K395	LDRPS KKAP VQWIP	0.37		2	K54	FIDRD GKVF RYILN	0.32	
	4	K470	QSELL QKYG L	0.33	SHKBP1	1	K44	GRIST LKDE TGAIF	0.91	
KCTD9	1	K46	TSVYN GKGG LIDDI	0.50		2	K576	AMEIA GKVD IKALG	0.67	
	2	K13	FLNGS PKNG KVVAV	0.43		3	K297	ATSHT GKVG VWNAV	0.50	
	3	K203	HSPIS RKEF VRFLI	0.09		4	K342	YYIDV QKFP LRMKD	0.39	
KCTD10	1	K303	VRRIH IKRP DDRAH	0.84		5	K15	HLNVG GKRF STSRQ	0.32	
	2	K82	LIDRC GKHF GTILN	0.32	Btbd10	1	K41	TSSRI AKGG VDHTK	0.62	
KCTD11	1	K31	FIDRD GKAF RHILN	0.32		2	K157	FVYEN AKEG ARNIR	0.62	
	KCTD12	1	K148	SRRGV HKEG SLGDE		0.34	3	K211	FTRPN EKGE YEVAE	0.50
2		K193	CFLQD KKMF KSVVK	0.13		4	K407	IRMSW EKEE GKSRRH	0.50	
3		K136	GEQVS RKQF LLQVP	0.09		5	K383	YKEKV KKRP GGRPE	0.37	
KCTD13		1	K140	QLALQ QKRE TLSPL	0.50	TNFAIP1	1	K144	PIITS LKEE ERLIE	0.91
	KCTD14	1	K200	MFKSV VKFG PWKAV	0.76		2	K21	PKLSG FKGG GLGNK	0.68
		2	K53	TLGTL RKFP GSKLA	0.34		3	K127	QSALQ DKKD SYQPV	0.50
		3	K193	CFLQD KKMF KSVVK	0.13		4	K67	MEVLT DKEG WILID	0.33
		4	K136	GEQVS RKQF LLQVP	0.09		5	K78	LIDRC GKHF GTILN	0.32
KCTD15	1	K278	PTAVR IKQE PLD	0.94	KCNRG	1	K24	TRFST IKQF PASRL	0.59	
	2	K129	LLPDD FKDF SLLYE	0.50		2	K14	TLNVG GKIF TTRFS	0.32	
KCTD16	1	K107	PEKGR LKRE AEYFQ	0.91						
	2	K406	QDFLK IKIP DRFPE	0.84						
	3	K347	TLDRP IKKG PVQLI	0.77						
	4	K296	CCCKN GKGD KEGES	0.67						
	5	K58	WKMFS PKRD TANDL	0.61						
	6	K362	QSEMR RKSD LLRTL	0.44						