

**Supplementary Table S2.** Comparison of the cleavage sites between human and mouse PKs newly found in the study.

Symbols	Kinome names	Groups	Cleavage sequences <sup>a</sup>	
			Human	Mouse
ACVR1	ALK2	TKL	IASD(269)↓M	IASD(274)↓M
AKT2	AKT2	AGC	D <u>PMD</u> (121)↓Y	D <u>AMD</u> (121)↓Y
BMPR1B	ALK6	TKL	CSTD(50)↓G	CSTD(50)↓G
			DFVD(120)↓G	DFVD(120)↓G
CaMKK1	CaMKK1	Other	EEAD(32)↓G	EEAD(32)↓E
CSK	CSK	TK	DAPD(409)↓G	DAPD(409)↓G
CSNK1G1	CK1g1	CK1	VHVD(343)↓S	VHVD(343)↓S
eEF2K	eEF2K	Atypical	EGVD(14)↓G	EGVD(14)↓G
			D <u>HLD</u> (430)↓N	D <u>RMD</u> (429)↓N
HSPB8	H11	Atypical	MAD(3)↓G	MAD(3)↓G
MAP2K6	MAP2K6	STE	E <u>FVD</u> (289)↓F	D <u>FVD</u> (289)↓F
MAPK12	p38g	CMGC	SAVD(46)↓G	SAVD(46)↓S
MARK1	MARK1	CAMK	SATD(52)↓E	SATD(52)↓E
MKNK2	MNK2	CAMK	DQPD(32)↓H	—
			DIPD(58)↓A	DIPD(58)↓A
PDPK1	PDK1	AGC	S <u>HPD</u> (552)↓A	S <u>NPD</u> (555)↓A
PIM2	PIM2	CAMK	TDFD(198)↓G	TDFD(232)↓G
PRKAA1	AMPKa1	CAMK	TSLD(520)↓S	TSLD(505)↓S
PRKCI	aPKCi	PKC	TQRD(6)↓S	TQRD(6)↓S
PRKX	PRKX	AGC	ETPD(25)↓G	—
RIOK1	RIOK1	Atypical	EKDD(37)↓I	EKDD(37)↓I
RIOK3	RIOK3	Atypical	DTRD(139)↓D	DTRD(139)↓D
RPS6KA5	MSK1	AGC	D <u>GGD</u> (20)↓G	D <u>SGD</u> (19)↓G
			DELD(344)↓V	DELD(343)↓V
			TEM <u>D</u> (356)↓P	TEM <u>D</u> (355)↓P
SNARK	NuaK2	CAMK	VSED(546)↓S	VSED(553)↓S
TRIB3	TRB3	CAMK	VVPD(338)↓G	VVPD(338)↓G
ULK4	ULK4	Other	SQID(473)↓S	SQID(473)↓S

<sup>a</sup> Underlines show different amino acids.

Numbers and "↓" mean the cleavage site.