

1 **Table S1** P6.9 PTM-site-mapping data.

Sample	Sequence of Identified Peptide	Site	Activation Type
vPK1:FLAG-infected cells No. 0	RRRR <u>R</u> *SSTGTTY	R7; R8	ETD
	GSTRRRR*SSGY	R21; R22	CID
	RRR <u>PGRPR</u> *TY	R28; R32; R34	CID
No. 1	RRRrRSSTGTTY	R7	ETD
	RRRRrSSTGTTY	R8	ETD
	RRRRR <sub>s</sub> STGTTY	S9	ETD
	RRRRRSSTGtTY	T13	ETD
	RRRRRSSTGTtY	T14	ETD
	GSTRRRrSSGY	R22	ETD
	GSTRRRR <sub>s</sub> SGY	S23	ETD
	GSTRRRRS <sub>s</sub> GY	S24	ETD
	RRSR <sub>r</sub> SSTGRRSY	R42	ETD
	RRSR <sub>s</sub> STGRRSY	S43	ETD
	RRSRRSSTGRrSY	R48	ETD
	RRSRRSSTGRR <sub>s</sub> Y	S49	ETD
No. 2	RRRRrSSTGTTY	R8	ETD
	RRRrrSSTGTTY	R7; R8	ETD
	RRRRR <sub>s</sub> STGTTY	S9	ETD
	RRRRRSstGTTY	S10; T11	ETD
	RRRRR <sub>ss</sub> TGTTY	S9; S10	ETD
	RRRRRSStGTTY	T11	ETD
	RRRRRSSTGtTY	T13	ETD
	RRRRRSSTGTtY	T14	ETD
	GSTRRrRSSGY	R21	ETD
	GSTRRRrSSGY	R22	ETD
	GSTRRRR <sub>s</sub> SGY	S23	ETD
	GSTRRRRS <sub>s</sub> GY	S24	ETD
	RRR <u>PGRPR</u> *TY	R28; R32; R34	CID
	RRSR <sub>r</sub> SSTGRRSY	R42	ETD
	RRSR <sub>s</sub> STGRRSY	S43	ETD
	RRSRRSStGRRSY	T45	ETD
	RRSRRSSTGrRSY	R47	ETD
	RRSRRSSTGRrSY	R48	ETD
	RRSRRSSTGRR <sub>s</sub> Y	S49	ETD
	No. 3	RRrrRSSTGTTY	R6; R7
RRRrrSSTGTTY		R7; R8	ETD

	RRRRrSSTGTTY	R8	ETD
	RRRRR <sub>ss</sub> TGTTY	S9; S10	ETD
	RRRRR <sub>s</sub> STGTTY	S9	ETD
	RRRRR <sub>st</sub> GTTY	S10; T11	ETD
	RRRRRSS <sub>t</sub> GTTY	T11	ETD
	RRRRRSS <sub>t</sub> G <sub>t</sub> TY	T13	ETD
	RRRRRSS <sub>t</sub> G <sub>t</sub> Y	T14	ETD
	GSTRRrRSSGY	R21	ETD
	GSTRRRR*SSGY	R22	CID
	GSTRRRrSSGY	R22	ETD
	GSTRRRR <sub>s</sub> SGY	S23	ETD
	GSTRRRRS <sub>s</sub> GY	S24	ETD
	RRSR <sub>s</sub> RSSTGRRSY	S41	ETD
	RRSR <sub>r</sub> SSTGRRSY	R42	ETD
	RRSR <sub>s</sub> STGRRSY	S43	ETD
	RRSR <sub>st</sub> GRRSY	T45	ETD
	RRSR <sub>st</sub> G <sub>r</sub> RSY	R47	ETD
	RRSR <sub>st</sub> G <sub>r</sub> SY	R48	ETD
	RRSR <sub>st</sub> GRR <sub>s</sub> Y	S49	ETD
No. 4	RRRr <sub>r</sub> SSTGTTY	R7; R8	ETD
	RRRRrSSTGTTY	R8	ETD
	RRRRR <sub>s</sub> STGTTY	S9	ETD
	RRRRR <sub>st</sub> GTTY	S10; T11	ETD
	RRRRR <sub>ss</sub> TGTTY	S9; S10	ETD
	RRRRRSS <sub>t</sub> GTTY	T11	ETD
	RRRRRSS <sub>t</sub> G <sub>t</sub> TY	T13	ETD
	RRRRRSS <sub>t</sub> G <sub>t</sub> Y	T14	ETD
	GSTRRRR*RSSGY	R21; R22	CID
	GSTRRRRSSGY	R22	CID
	GSTRRRrSSGY	R22	ETD
	GSTRRRR <sub>ss</sub> GY	S23; S24	ETD
	GSTRRRRS <sub>s</sub> GY	S24	ETD
	GSTRRRR <sub>s</sub> SGY	S23	ETD
	RRSR <sub>r</sub> SSTGRRSY	R42	ETD
	RRSR <sub>s</sub> STGRRSY	S43	ETD
	RRSR <sub>st</sub> GRRSY	R47	ETD
	RRSR <sub>st</sub> G <sub>r</sub> SY	R48	ETD
	RRSR <sub>st</sub> GRR <sub>s</sub> Y	S49	ETD
No. 5	RRRr <sub>r</sub> SSTGTTY	R7; R8	ETD
	RRRRrSSTGTTY	R8	ETD
	RRRRR <sub>s</sub> STGTTY	S9	ETD

No. 6

RRRRR <sub>ss</sub> TGTTY	S9; S10	ETD
RRRRR <sub>st</sub> GTTY	S10; T11	ETD
RRRRR <sub>SS</sub> tGTTY	T11	ETD
RRRRR <sub>SS</sub> TG <sub>t</sub> TY	T13	ETD
RRRRR <sub>SS</sub> TG <sub>tt</sub> Y	T13; T14	ETD
RRRRR <sub>SS</sub> TG <sub>T</sub> tY	T14	ETD
GSTRRR <sub>r</sub> SSGY	R22	ETD
GSTRRR <sub>rr</sub> SSGY	R21; R22	ETD
GSTRRRR <sub>ss</sub> GY	S23; S24	ETD
GSTRRRR <sub>s</sub> SGY	S23	ETD
RRR <u>PGR</u> * <u>PR</u> *TY	R32; R34	ETD
RRSR <sub>s</sub> RSSTGRRSY	S41	ETD
RRSR <sub>r</sub> SSTGRRSY	R42	ETD
RRSR <sub>S</sub> sSTGRRSY	S43	ETD
RRR <sub>rr</sub> SSTGTTY	R7; R8	ETD
RRRR <sub>r</sub> SSTGTTY	R8	ETD
RRRRR <sub>ss</sub> TGTTY	S9; S10	ETD
RRRRR <sub>st</sub> GTTY	S10; T11	ETD
RRRRR <sub>s</sub> STGTTY	S9	ETD
RRRRR <sub>SS</sub> tGTTY	T11	ETD
RRRRR <sub>SS</sub> TG <sub>t</sub> TY	T13	ETD
RRRRR <sub>SS</sub> TG <sub>tt</sub> Y	T14	ETD
RRRRR <sub>SS</sub> TG <sub>tt</sub> Y	T13; T14	ETD
GSTR <u>*R</u> *RRSSGY	R19; R20	CID
GSTRRR <sub>r</sub> SSGY	R22	ETD
GSTRRR <sub>rr</sub> SSGY	R21; R22	ETD
GSTRRRR <sub>ss</sub> GY	S23; S24	ETD
GSTRRRR <sub>s</sub> SGY	S23	ETD
RRSR <sub>r</sub> SSTGRRSY	R42	ETD
RRSR <sub>S</sub> sSTGRRSY	S43	ETD
RRSR <sub>S</sub> RSSTGR <sub>r</sub> SY	R48	ETD
RR <sub>rr</sub> RSSTGTTY	R6; R7	ETD
RRRR <sub>r</sub> SSTGTTY	R7	ETD
RRR <sub>rr</sub> SSTGTTY	R7; R8	ETD
RRRR <sub>r</sub> SSTGTTY	R8	ETD
RRRRR <sub>ss</sub> TGTTY	S9; S10	CID
RRRRR <sub>st</sub> GTTY	S10; T11	ETD
RRRRR <sub>s</sub> TG <sub>t</sub> TY	S10; T13	ETD
RRRRR <sub>SS</sub> TG <sub>tt</sub> Y	T13; T14	ETD
RRRRR <sub>SS</sub> TG <sub>t</sub> TY	T13	ETD
RRRRR <sub>SS</sub> TG <sub>T</sub> tY	T14	ETD

No. 7

	GSTrRRrSSGY	R19; R22	ETD
	GSTRRrSSGY	R21; R22	ETD
	GSTRRRrSSGY	R22	ETD
	GsTRRRR <sub>s</sub> SGY	S17; S23	ETD
	GSTRRRR <sub>s</sub> SGY	S23	ETD
	GStRRRR <sub>s</sub> GY	T18; S24	ETD
	GSTRRRR <sub>ss</sub> GY	S23; S24	ETD
	RRRR <sub>sst</sub> GTTY	S9; S10; T11	ETD
	RRRR <sub>ss</sub> TGtTY <sup>a</sup>		ETD
<b>BV</b>	GSTR <u>R</u> *R*RRSSGY	R19; R20	ETD
	<u>RR</u> *SRSRSSTGRRSY	R38	ETD
<b>vPK1KO bacmid- transfected cells</b>			
No. 0	<u>R</u> *R <sub>S</sub> R <sub>S</sub> R <sub>S</sub> SSTGR <u>R</u> *SY	R37; R47; R48	ETD
No. 1	RRRrRSSTGTTY	R7	ETD
	RRRRrSSTGTTY	R8	ETD
	RRRRR <sub>s</sub> STGTTY	S9	ETD
	RRRRRSSTGtTY	T13	ETD
	RRRRRSSTGTtY	T14	ETD
	GSTRRrRSSGY	R21	ETD
	GSTRRRrSSGY	R22	ETD
	GSTRRRR <sub>s</sub> SGY	S23	ETD
	GSTRRRR <sub>s</sub> SGY	S24	ETD
No. 2	RRRrRSSTGTTY	R7	ETD
	RRRRrSSTGTTY	R8	ETD
	RRRRRSStGTTY	T11	ETD
	RRRRRSSTGtTY	T13	ETD
	RRRRRSSTGTtY	T14	ETD
	GSTRRR <u>R</u> *SSGY	R22	CID
	GSTRRrRSSGY	R21	ETD
	GSTRRRrSSGY	R22	ETD
	GSTRRRR <sub>s</sub> SGY	S23	ETD
No. 3	RRRRrSSTGTTY	R8	ETD
	RRRRRSStGTTY	T11	ETD
	RRRRRSSTGtTY	T13	ETD
	RRRRRSSTGTtY	T14	ETD
	GSTRRR <u>R</u> *SSGY	R22	ETD
	GSTRRRrSSGY	R22	CID

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No. 4	GSTRRRR <sub>s</sub> SGY	S23	ETD
	GSTRRRRS <sub>s</sub> GY	S24	ETD
	RRRrRSSTGTTY	R7	ETD
	RRRRrSSTGTTY	R8	ETD
	RRRRRSStGTTY	T11	ETD
	RRRRRSSTGtTY	T13	ETD
	RRRRRSSTGTtY	T14	ETD
	GSTRRR <u><u>R</u></u> *SSGY	R21; R22	CID
	GSTRRRrRSSGY	R21	ETD
	GSTRRRrSSGY	R22	ETD
	GSTRRRR <sub>s</sub> SGY	S23	ETD

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2 The phosphorylated residues are indicated by lowercase letters. The methylated residues are  
3 underlined, and an asterisk is added if a residue is dimethylated.

4 <sup>a</sup> The peptide is triply phosphorylated; however, an unambiguous assignment of the  
5 phosphorylation sites was not possible on the basis of the MS/MS data.