

## SUPPLEMENTAL TABLES

**Table S1.** Fast Kinase-Substrate Enrichment Analysis (fkSEA) Input File Format. [(R): Required, (O): Optional]

<b>ProteinAccession (R)</b>	<b>log2FC (R)</b>	<b>PhosphoSiteID (O)</b>	<b>pValue (O)</b>
P02545	-1.8	S22	0.0025
P02545	-0.95	S390	0.03
P17612	2.1	T198	0.028
P08670	-3.48	S56	0.024

**Table S2.** Fast Kinase-Substrate Enrichment Analysis (fKSEA) Output File Format. [(H|A): HUGO or Accession ID, (IE): If Exists]

<b>KinaseID (H A)</b>	<b>TargetID (H A)</b>	<b>PhosphoSiteID (IE)</b>	<b>log2FC</b>	<b>KinaseActivity</b>	<b>pValue</b>
AKT1	LMNA	S22	-1.8	-1.3	0.0025
AKT1	LMNA	S390	-0.95	-1.3	0.03
PRKACA	PRKACA	T198	2.1	0.7	0.028
PRKACA	VIM	S56	-3.48	0.7	0.024

**Table S3.** Visualization Input File Format. [(R): Required, (O): Optional, (P): Phosphorylation]

<b>Kinase ID</b> <b>(R)</b>	<b>Target ID</b> <b>(R)</b>	<b>Kinase Size</b> (O)	<b>Kinase Activity</b> (O)	<b>Edge Weight</b> (O)	<b>Edge Hue</b> (O)	<b>Target Size</b> (O)	<b>PhosphoSite ID</b> (O)	<b>log2FC</b> (O) (P)	<b>pValue</b> (O) (P)
AKT1	LMNA	1.2	-1.3	1	1.44	0.9	S22	-1.8	0.0025
AKT1	LMNA	1.2	-1.3	1	1.44	0.9	S390	-0.95	0.03
PRKACA	PRKACA	3	0.7	1.5	4.28	3	T198	2.1	0.028
PRKACA	VIM	3	0.7	3.8	0.07	1.12	S56	-3.48	0.024