

Supplementary Material for:

Updating dual specificity tyrosine-phosphorylation-regulated kinase 2 (DYRK2): molecular basis, functions and role in diseases.

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Supplementary figures.

Supplementary Figure S1. DYRK2 mutations in cancer. The DYRK2 mutation list for the TCGA PanCancer Atlas Studies was obtained from cBioPortal (<https://www.cbioportal.org/>)[109] and filtered to variants with a tumor allele frequency > 0.3. For each mutation (point), the color indicates the TCGA study where it was detected, the X axis the position on DYRK2 protein and the Y axis the tumor allele frequency.

Supplementary Table

Site	Organism	PTM type	Sources
S7	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus
R18	Homo sapiens (human)	Methylation	PhosphoSitePlus
S30	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus, iPTMNet
S30	Mus musculus (mouse)	Phosphorylation	PhosphoSitePlus
T44	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus
S48	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus
S48	Mus musculus (mouse)	Phosphorylation	PhosphoSitePlus
T106	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus, iPTMNet
S142	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus
Y308	Rattus norvegicus (rat)	Phosphorylation	PhosphoSitePlus
Y314	Rattus norvegicus (rat)	Phosphorylation	PhosphoSitePlus
C347	Homo sapiens (human)	S-Nitrosylation	iPTMNet
C373	Homo sapiens (human)	S-Nitrosylation	iPTMNet
T379	Mus musculus (mouse)	Phosphorylation	PhosphoSitePlus
Y380	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus, iPTMNet
Y380	Mus musculus (mouse)	Phosphorylation	PhosphoSitePlus
T381	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus, iPTMNet
Y382	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus, iPTMNet
S385	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus
S442	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus, iPTMNet
S449	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus, iPTMNet
Y464	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus, iPTMNet
T525	Homo sapiens (human)	Phosphorylation	PhosphoSitePlus, iPTMNet

Supplementary Table 1. DYRK2 post-translational modifications extracted from the databases PhosphoSitePlus (<https://www.phosphosite.org/homeAction.action>) and iPTMNet (<https://research.bioinformatics.udel.edu/ipmnet/>).