Revision 1

Phospho-PDK1 (Ser241) (C49H2) Rabbit mAb

Store at -20C

#3438

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	58 to 68	Rabbit IgG	#O15530	5170

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-PDK1 (Ser241) (C49H2) Rabbit mAb detects PDK1 only when phosphorylated at Ser241.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Ser241 of human PDK1.

Background

Phosphoinositide-dependent protein kinase 1 (PDK1) plays a central role in many signal transduction pathways (1,2) including the activation of Akt and the PKC isoenzymes p70 S6 kinase and RSK (3). Through its effects on these kinases, PDK1 is involved in the regulation of a wide variety of processes, including cell proliferation, differentiation and apoptosis.
Several serine sites (Ser25, Ser241, Ser393/396 and Ser410) are phosphorylated on PDK1 in unstimulated human embryo kidney 293 cells, as well as IGF-1 stimulated cells (4). Phosphorylation on the activation loop Ser241 by autophosphorylation is necessary for PDK1 activity (4).

Background References

1. Belham, C. et al. (1999) *Curr. Biol.* 9, R93-R96.
2. Toker, A. and Newton, A.C. (2000) *Cell* 103, 185-188.
3. Williams, M.R. et al. (2000) *Curr. Biol.* 10, 439-448.
4. Casamayor, A. et al. (1999) *Biochem J* 342 (Pt 2), 287-92.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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