SignalChem
Specialists in Signaling Proteins
1-866-9 KINASE (54-6273)

Catalogue #	Aliquot Size
P14-65R-100	100 µg

Anti-phospho-PDK1 (Ser241)

Rabbit Polyclonal Antibody

Catalog # P14-65R
Lot # J1178-31

Cited Applications

WB, IHC

Suggested Dilutions:
WB: 1:500-1:1000 IHC: 1:50-1:100

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the PDK1 protein phosphorylated at serine 241

Cross Reactivity

Human, Mouse and Rat

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser241

Formulation

PBS (pH 7.4) 150mM NaCl, 0.02% sodium azide and 50% glycerol.

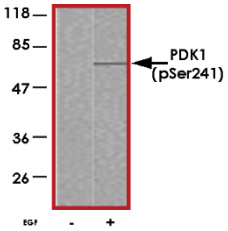
Scientific Background

PDK1 (3-phosphoinositide-dependent protein kinase) is activated by the presence of PtdIns(3,4,5)P3 or PtdIns(3,4)P2 (1). PDK1 then activates protein kinase B (PKB) which, in turn, inactivates glycogen synthase kinase-3 (GSK3). Phosphorylation of other proteins by PKB and GSK3 is likely to mediate many of the intracellular actions of insulin. Thus, PDK1 plays a key role in mediating many of the actions of the second messenger(s) PtdIns(3,4, 5)P3 and/or PtdIns(3,4)P2. The human PDK1 is a 556-residue monomeric enzyme comprising of a catalytic domain that is most similar to the PKA, PKB and PKC subfamily of protein kinases. PDK1 activity is dependent on phosphorylation at Ser241. Other known phosphorylation target sites include Ser25, Ser393, Ser 396 and Ser410 (3).

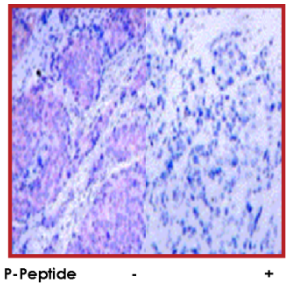
References

1. Cohen, P. et al: PDK1, one of the missing links in insulin signal transduction? FEBS Letter. 1997 Jun 23;410(1):3-10. Review.
2. Alessi, DR. et al: Characterization of a 3-phosphoinositide-dependent protein kinase which phosphorylates and activates protein kinase B alpha. Curr Biol. 1997 Apr 1;7(4):261-9.
3. Casamayor A. et al: Phosphorylation of Ser-241 is essential for the activity of 3-phosphoinositide-dependent protein kinase-1: identification of five sites of phosphorylation in vivo. Biochem J. 1999 Sep 1;342 (Pt 2):287-92.

Sample Data



Western blots from MDA-MB-435 cells using anti-phospho-PDK1 (Ser241) antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-phospho-PDK1 (Ser241) antibody.

Anti-phospho-PDK1 (Ser241)

Rabbit Polyclonal Antibody

Catalog Number	P14-65R
Specific Lot Number	J1178-31
Purification	Affinity chromatography
Stability	1yr at –20°C from date of shipment
Storage & Shipping	Store product at –20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
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