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#4942

PBK/TOPK Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IHC-P	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 40	Source/Isotype: Rabbit	UniProt ID: #Q96KB5	Entrez-Gene Id: 55872
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Product Usage Information

Application

Western Blotting
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:50

Storage

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

Specificity/Sensitivity

PBK/TOPK Antibody detects endogenous levels of total PBK/TOPK protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids at the carboxy-terminus of human PBK/TOPK. Antibodies are purified by protein A and peptide affinity chromatography.

Background

PBK/TOPK is a serine/threonine kinase that is phosphorylated and active during mitosis (1). PBK/TOPK is composed of kinase subdomains and a carboxy-terminal PDZ-Binding domain, which is thought to interact with the tumor suppressor protein hDlg (1). Increased PBK/TOPK expression has been observed in highly proliferative malignant cell lines, and PBK/TOPK expression is strongly downregulated during terminal differentiation of HL-60 leukemic cells (2,3). PMA-induced kinase activity toward PBK/TOPK has been observed (4), and cdc2/cyclinB has been shown to phosphorylate PBK/TOPK in vitro, presumably at Thr9 (1). Potential substrates of PBK/TOPK include p38 MAPK and c-Myc (3,4).

Background References

- Gaudet, S. et al. (2000) *Proc. Natl. Acad. Sci. U S A* 97, 5167-5172.
- Simons-Evelyn, M. et al. (2001) *Blood Cells Mol. Dis.* 27, 825-829.
- Nandi, A. et al. (2004) *Blood Cells Mol. Dis.* 32, 240-245.
- Abe, Y. et al. (2000) *J. Biol. Chem.* 276, 21525-21531.
- Matsumoto, S. et al. (2004) *Biochem Biophys Res Commun.* 325, 997-1004.

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 **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

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

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