

**#4942** Store at -20°C

## PBK/TOPK Antibody


**Cell Signaling**  
TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IHC-P	H M R	Endogenous	40	Rabbit	#Q96KB5	55872

### 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

1. Gaudet, S. et al. (2000) *Proc. Natl. Acad. Sci. U S A* 97, 5167-5172.
2. Simons-Evelyn, M. et al. (2001) *Blood Cells Mol. Dis.* 27, 825-829.
3. Nandi, A. et al. (2004) *Blood Cells Mol. Dis.* 32, 240-245.
4. Abe, Y. et al. (2000) *J. Biol. Chem.* 276, 21525-21531.
5. 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

**WB:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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