PBK Antibody (C-Term C300) Blocking Peptide

PRODUCT OVERVIEW

Product Name	PBK, Blocking Peptide
Full Product Name	PBK Antibody (C-term C300) Blocking Peptide
Product Gene Name	PBK blocking peptide
Product Synonym Gene Name	TOPK
Product Synonym Names	Lymphokine-activated killer T-cell-originated protein kinase; Cancer/testis antigen 84; CT84; MAPKK-like protein kinase; Nori-3; PDZ-binding kinase; Spermatogenesis-related protein kinase; SPK; T-LAK cell-originated protein kinase; PBK; TOPK
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence used to generate the antibody was selected from the C-term region of human PBK. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	PBK peptide (MBS9226636) is used for blocking the activity of PBK antibody (MBS9207952)
Molecular Weight	37,211 Da
OMIM	611210
Tissue Location	Expressed in the testis and placenta. In the testis, restrictedly expressed in outer cell layer of seminiferous tubules.
Related Product Information for PBK blocking peptide	Phosphorylates MAP kinase p38. Seems to be active only in mitosis. May also play a role in the activation of lymphoid cells. When phosphorylated, forms a complex with TP53, leading to TP53 destabilization and attenuation of G2/M checkpoint during doxorubicin-induced DNA damage.
Other Notes	Small volumes of PBK blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PBK purchase	MBS9226636 is a blocking peptide targeting PBK. Also known as PBK Antibody (C-term C300) Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PBK. It may not necessarily be applicable to this product.

NCBI GI #	83305809
NCBI GeneID	55872
NCBI Accession #	Q96KB5.3
UniProt Primary Accession #	Q96KB5
UniProt Secondary Accession #	Q9NPD9; Q9NYL7; Q9NZK6; B4DX68; D3DST2
UniProt Related Accession #	Q96KB5
NCBI Official Full Name	Lymphokine-activated killer T-cell-originated protein kinase
NCBI Official Synonym Full Names	PDZ binding kinase
NCBI Official Symbol	PBK

NCBI Official Synonym Symbols	SPK; CT84; TOPK; HEL164; Nori-3
UniProt Protein Name	Lymphokine-activated killer T-cell-originated protein kinase
UniProt Synonym Protein Names	Cancer/testis antigen 84; CT84; MAPKK-like protein kinase; Nori-3; PDZ-binding kinase; Spermatogenesis-related protein kinase; SPK; T-LAK cell-originated protein kinase
Protein Family	Lymphokine-activated killer T-cell-originated protein kinase
UniProt Gene Name	PBK
UniProt Synonym Gene Names	TOPK; CT84; SPK
UniProt Entry Name	TOPK_HUMAN
NCBI Protein Information	lymphokine-activated killer T-cell-originated protein kinase
NCBI Summary for PBK	This gene encodes a serine/threonine protein kinase related to the dual specific mitogen-activated protein kinase kinase (MAPKK) family. Evidence suggests that mitotic phosphorylation is required for its catalytic activity. The encoded protein may be involved in the activation of lymphoid cells and support testicular functions, with a suggested role in the process of spermatogenesis. Overexpression of this gene has been implicated in tumorigenesis. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]
UniProt Comments for PBK	PBK: Phosphorylates MAP kinase p38. Seems to be active only in mitosis. May also play a role in the activation of lymphoid cells. When phosphorylated, forms a complex with TP53, leading to TP53 destabilization and attenuation of G2/M checkpoint during doxorubicin-induced DNA damage. Interacts with DLG1 and TP53. Expressed in the testis and placenta. In the testis, restrictedly expressed in outer cell layer of seminiferous tubules. Activated by phosphorylation. Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. MAP kinase kinase subfamily. Protein type: EC 2.7.12.2; Cancer Testis Antigen (CTA); Protein kinase, Ser/Thr (non-receptor); Kinase, protein; Protein kinase, Other; Other group; TOPK family Chromosomal Location of Human Ortholog: 8p21.2 Cellular Component: nucleus Molecular Function: protein binding; protein serine/threonine kinase activity
Research Articles on PBK	**1.** The in vitro data have been consistent with a role for PBK/TOPK in facilitating invasion in prostate cancer. PBK could be a prognostic biomarker for prostate cancer that would discriminate aggressive prostate cancer from indolent disease.
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