

# Recombinant Human PDK/PDZ binding kinase/TOPK Protein (His Tag)



Catalog Number:PKSH031457

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

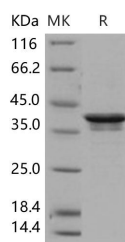
## Description

<b>Synonyms</b>	CT84;HEL164;Nori-3;SPK;TOPK
<b>Species</b>	Human
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Met 1-Val 322
<b>Accession</b>	NP_060962.2
<b>Calculated Molecular Weight</b>	37.0 kDa
<b>Observed molecular weight</b>	37 kDa
<b>Tag</b>	C-His

## Properties

<b>Purity</b>	> 80 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



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## Background

PDZ binding kinase (PBK), also known as TOPK (T-LAK cell-originated protein kinase), is a serine/threonine kinase related to the dual specific mitogen-activated protein kinase kinase (MAPKK) family, and has all the characteristic protein kinase subdomains and a C-terminal PDZ-binding T/SXV motif. PBK is expressed in the testis restrictedly expressed in outer cell layer of seminiferous tubules, as well as placenta. PBK may be enrolled in the activation of lymphoid cells and support testicular functions, with a suggested role in the process of spermatogenesis. This mitotic kinase phosphorylates MAP kinase p38 and seems to be active in mitosis. When phosphorylated, PBK forms a protein-protein interaction with tumor suppressor p53 (TP53), leading to TP53 destabilization and attenuation of G2/M checkpoint during doxorubicin-induced DNA damage. The expression level of PBK is thus upregulated in a variety of

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neoplasms including hematological malignancies.

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