

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

Catalog No. PKSH031457

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

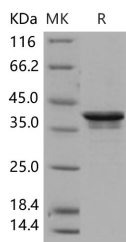
Description

Synonyms	CT84;HEL164;Nori-3;SPK;TOPK
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Val 322
Accession	NP_060962.2
Calculated Molecular Weight	37.0 kDa
Observed molecular weight	37 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 80 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	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.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 80 % as determined by reducing SDS-PAGE.

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

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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 neoplasms including hematological malignancies.