

PBK Human

Description: PBK Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 346 amino acids (1-322 a.a) and having a molecular mass of 38.6kDa (Molecular weight on SDS-PAGE will appear higher). PBK is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Catalog #: PKPS-031

For research use only.

Synonyms: 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.

Source: Escherichia Coli.

Physical Appearance: DCK is supplied as a sterile filtered clear solution.

Amino Acid Sequence: MGSSHHHHHH SSGLVPRGSH MGSHMEGISH FKTPSKLSEK
KKSVCSTPT INIPASPFMQ KLGFGTGVNV YLMKRSPRGL SHSPWAVKKI NPICNDHYRS
VYQKRLMDEA KILKSLHHPN IVGYRAFTEA NDGSLCLAME YGGEKSLNDL IEERYKASQD
PFPAIILKV ALNMARGLKY LHQEKLLHG DIKSSNVVIG GDFETIKICD VGVSLPLDEN
MTVTDPEACY IG

Purity: Greater than 95.0% as determined by SDS-PAGE.

Formulation:

PBK protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH 8.0), 1mM DTT, 10% glycerol and 0.1M NaCl.

Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:

Lymphokine-activated killer T-cell-originated protein kinase (PBK) is a serine/threonine kinase related to the dual specific mitogen-activated protein kinase (MAPKK) family. PBK is abundant in placenta (is also found in the testis outer cell layer of seminiferous tubules) and absent from adult brain tissue. PBK is involved in the activation of lymphoid cells and supports testicular functions, with a possible role in the process of spermatogenesis. Mitotic phosphorylation is required for PBKs catalytic activity. Once phosphorylated, PBK forms a complex with TP53, leading to TP53 destabilization and weakening of G2/M checkpoint during doxorubicin-induced DNA damage. PBK is active only during mitosis. In addition, a PDZ domain in the tumor suppressor protein Dlg can coordinate with the T/SXV motif of PBK. PBK also phosphorylates MAP kinase p38, and may have a role in the activation of lymphoid cells.

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