

## PBK/TOPK Protein, Human (sf9, His)

Cat. No.:	HY-P77122
Synonyms:	Lymphokine-activated killer T-cell-originated protein kinase; CT84; Nori-3; SPK; TOPK
Species:	Human
Source:	Sf9 insect cells
Accession:	Q96KB5 (M1-V322)
Gene ID:	55872
Molecular Weight:	35-45 kDa

### PROPERTIES

Biological Activity	No Kinase Activity
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	PBK/TOPK, a mitosis-specific protein kinase, exhibits activity by phosphorylating MAP kinase p38. Its functional involvement appears to be confined to mitotic processes, emphasizing a specific role during cell division. Additionally, PBK/TOPK is implicated in the activation of lymphoid cells, suggesting a broader impact on immune responses. Notably, when phosphorylated, PBK/TOPK forms a complex with TP53, resulting in TP53 destabilization and a dampening of the G2/M checkpoint in response to DNA damage induced by doxorubicin. This intricate regulation underscores the multifaceted functions of PBK/TOPK in cell cycle control and cellular responses to genotoxic stress.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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