

## TLK1 Protein, Human (sf9, His-GST)

Cat. No.:	HY-P76676
Synonyms:	Serine/threonine-protein kinase tousled-like 1; PKU-beta; Tousled-like kinase 1; TLK1; KIAA0137
Species:	Human
Source:	Sf9 insect cells
Accession:	Q9UKI8 (M1-Y766)
Gene ID:	9874
Molecular Weight:	Approximately 125 kDa

### PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% gly.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

### DESCRIPTION

#### Background

TLK1, a protein intricately involved in cellular processes, experiences rapid and transient inhibition through phosphorylation upon the occurrence of DNA double-stranded breaks during S-phase. This regulatory mechanism is checkpoint-dependent, involving the ATM pathway, and plays a crucial role in orchestrating processes associated with chromatin assembly. Notably, isoform 3 of TLK1 exhibits the capability to phosphorylate and enhance the stability of the t-SNARE SNAP23, thereby promoting its assembly with syntaxin. Additionally, this isoform serves a protective role against ionizing radiation by facilitating the repair of DNA double-strand breaks. In vitro, TLK1 phosphorylates histone H3 at 'Ser-10,' further emphasizing its involvement in chromatin dynamics and cellular response to DNA damage.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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