

## MAP3K8/TPL-2 Protein, Human (sf9, GST)

Cat. No.:	HY-P75921
Synonyms:	Mitogen-activated protein kinase kinase kinase 8; TPL-2; MAP3K8; COT; ESTF
Species:	Human
Source:	Sf9 insect cells
Accession:	P41279 (M30-R397)
Gene ID:	1326
Molecular Weight:	Approximately 68 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 50 mM Tris, 100 mM NaCl, 0.5 mM PMSF, 0.5 mM GSH, pH 8.0.
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

MAP3K8/TPL-2 is crucial for lipopolysaccharide (LPS)-induced, TLR4-mediated activation of the MAPK/ERK pathway in macrophages, playing a pivotal role in the production of the pro-inflammatory cytokine TNF-alpha (TNF) during immune responses. It also participates in the regulation of T-helper cell differentiation and IFNG expression in T-cells, contributing to the modulation of host resistance against bacterial infections by negatively regulating type I interferon (IFN) production. Furthermore, MAP3K8/TPL-2 is involved in transducing signals from CD40 and TNFRSF1A, activating ERK in B-cells and macrophages, and potentially influencing immunoglobulin production. In adipocytes, it activates the MAPK/ERK pathway in response to IL1B and TNF, contributing to the induction of lipolysis in an IKK-dependent manner. Additionally, MAP3K8/TPL-2 may play a role in the transduction of TNF signals that activate JNK and NF-kappa-B in specific cell types. Its involvement in the cell cycle is evident, with isoform 1 exhibiting some transforming activity, albeit weaker than that of the activated oncogenic variant.

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

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