# Recombinant Human STK16/PKL12/MPSK Protein (His & 🥌

NusA Tag)

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

## **Description**

Catalog Number: PKSH030340

**Synonyms** KRCT:MPSK:PKL12:TSF1

**Species Expression Host** E.coli

Met 1-Ile 305 **Sequence** Accession AAH02618.1 Calculated Molecular Weight 92.0 kDa Observed molecular weight 105 kDa Tag N-His-NusA

## **Properties**

**Purity** > 85 % as determined by reducing SDS-PAGE.

**Endotoxin** Please contact us for more information.

Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles. **Storage** 

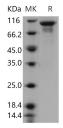
**Shipping** This product is provided as liquid. It is shipped at frozen temperature with blue

ice/gel packs. Upon receipt, store it immediately at < - 20°C.

**Formulation** Supplied as sterile solution of PBS, pH 7.4

Reconstitution Not Applicable

#### Data



> 85 % as determined by reducing SDS-PAGE.

# **Background**

Serine/threonine-protein kinase 16, also known as myristoylated and palmitoylated serine/threonine-protein kinase, Protein kinase PKL12, TGF-beta-stimulated factor 1, TSF-1, MPSK1 and STK16, is a membrane protein which is ubiquitously expressed at very low levels. STK16 / MPSK1 belongs to the protein kinase superfamily and Ser/Thr protein kinase family. It contains one protein kinase domain. Transforming growth factor-beta (TGF-beta) shows a variety of biological activities in various organs or cells. Some factors such as Smads and TGF-beta activating kinase 1 have been characterized as signalling molecules downstream of TGF-beta. Several TGF-beta response elements have been identified such as cAMP response element, Smad binding element, and recognition sites for activating protein-1 and stimulating protein-1 in various gene promoters. STK16 / MPSK1 is an unique factor with two biological functions, transcriptional regulation and protein phosphorylation, that may be involved in TGF-beta signals. STK16 / MPSK1 is a protein kinase that act on both serine and threonine residues. STK16 / MPSK1 possessed DNA-binding ability and activated the TGFbeta responsive CNP promoter or vascular endothelial growth factor gene promoter which possesses a sequence element analogous to the TGF-beta responsive GC-rich element of the CNP promoter. STK16 / MPSK1 did not directly activate a

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Web: www.elabscience.com Email: techsupport@elabscience.com

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by Elabscience

Catalog Number:PKSH030340

Smads-dependent promoter from plasminogen activator inhibitor 1 gene, but it showed enhancement in co-operation with Smad3 and Smad4. STK16 / MPSK1 mRNA as well as its protein level were stimulated by TGF-beta treatment.

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