

Recombinant Human STK16 / PKL12 / MPSK Protein (His & NusA tag)

Cat.NO.: TP08360

3th Edition

Synonyms:KRCT;MPSK;PKL12;TSF1

Description: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 (Sma and Mad proteins) 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 TGF-beta 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 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.

Form:PBS

Molecular Weight:92 kDa

Sequences:Met 1-Ile 305

Purity:> 95% by HPLC

Concentration:

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage:Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.