

Human STK16 / PKL12 / MPSK Protein (His & NusA Tag)

Catalog Number: 12201-H24E



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

KRCT; MPSK; PKL12; TSF1; EDPK; Krct; MPSK; PKL12; TSF-1

Protein Construction:

A DNA sequence encoding the native human STK16 (AAH02618.1) (Met 1-Ile 305) was fused with the polyhistidine-tagged NusA tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

Kinase activity untested

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human STK16/NusA chimera consisting of 820 amino acids and has a calculated molecular mass of 92 kDa. It migrates as an 105 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

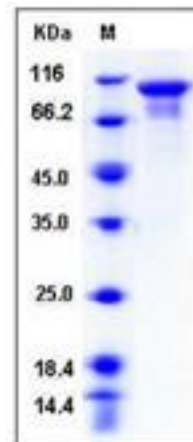
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein 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 a 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.

References

- 1.Ligos J.M., et al., 1998, Biochem. Biophys. Res.Commun. 249:380-4.
- 2.Berson A.E., et al.,1999, Biochem. Biophys. Res. Commun. 259:533-8.
- 3.Ohta S., et al., 2000, Biochem. J. 350:395-404.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>