

Human MOBKL1A / MOB1B Protein (GST Tag)

Catalog Number: 14016-H09E



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

MATS2; MOB4A; MOBKL1A; 1110003E08Rik; AU015450; B230364F10; Mobkl1a

Protein Construction:

A DNA sequence encoding the human MOBKL1A (Q7L9L4) (Met1-Arg216) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 85 % as determined by SDS-PAGE

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 MOBKL1A /GST chimera consists of 450 amino acids and has a predicted molecular mass of 52.3 kDa. It migrates as an approximately 43-48 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 150mM NaCl, pH 8.0.

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:

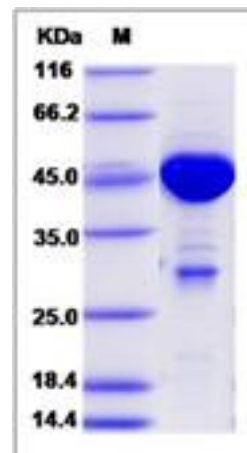
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

MST1 and MST2 are the mammalian Ste20-related protein kinases most closely related to Drosophila Hippo, a major regulator of cell proliferation and survival during development. Overexpression of MST1 or MST2 in mammalian cells is proapoptotic. MST1 and MST2 activity increases during mitosis, especially in nocodazole-arrested mitotic cells, where these kinases exhibit both an increase in both abundance and activation. MST1 and MST2 also can be activated nonphysiologically by okadaic acid or H₂O₂. The MOB1B and MOBKL1B polypeptides, homologs of the Drosophila MATS polypeptide, are identified as preferred MST1/MST2 substrates in vitro and are phosphorylated in cells in an MST1/MST2-dependent manner in mitosis and in response to okadaic acid or H₂O₂. MST1/MST2-catalyzed MOB1B/MOBKL1B phosphorylation alters the ability of MOB1B/MOBKL1B to bind and regulate downstream targets such as the NDR-family protein kinases. Thus, MOB1B/MOBKL1B phosphorylation in cells promotes MOB1B/MOBKL1B binding to the LATS1 kinase and enables H₂O₂-stimulated LATS1 activation loop phosphorylation. Most importantly, replacement of endogenous MOB1B/MOBKL1B by a nonphosphorylatable mutant is sufficient to accelerate cell proliferation substantially by speeding progression through G1/S as well as mitotic exit.

References

- 1.Ota T, *et al.* (2004) Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat Genet. 36(1):40-5.
- 2.Gerhard DS, *et al.* (2004) The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Genome Res. 14(10B):2121-7.
- 3.Devroe E, *et al.* (2004) Human Mob proteins regulate the NDR1 and NDR2 serine-threonine kinases. J Biol Chem. 279(23):24444-51.

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