

Human MST4 Protein (GST Tag)

Catalog Number: 10667-H09B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

MASK; MST4

Protein Construction:

A DNA sequence encoding the human MST4 isoform 1 (NP_057626.2) (Met 1-Pro 416) was expressed with the fused GST tag at N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

The specific activity was determined to be 15 nmol/min/mg using MBP as substrate.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

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 MST4/GST chimera consists of 641 amino acids and predicts a molecular mass of 73 kDa. It migrates as an approximately 65 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 50mM Tris, 100mM NaCl, pH 8.0, 25% glycerol, 0.6mM GSH, 0.5mM PMSF, 0.5mM EDTA, 2mM DTT

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:

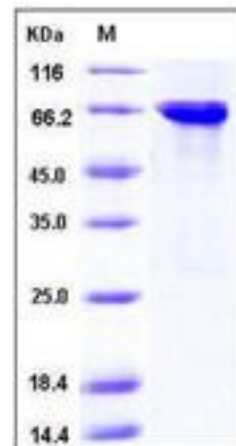
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

MST4, also known as mammalian STE20-like protein kinase 4, is a novel member of the germinal center kinase subfamily of human Ste20-like kinases and is closely related to MST3. The 416 amino acid full-length MST4 contains a C-terminal regulatory domain and an N-terminal kinase domain, both of which are required for full activation of the kinase. MST4 is highly expressed in placenta, thymus, and peripheral blood leukocytes. MST4 specifically activates ERK but not JNK or p38 MAPK in transiently transfected cells or in stable cell lines, and thus is biologically active in the activation of MEK/ERK pathway mediating cell growth and transformation. Further, MST4 kinase activity is stimulated significantly by epidermal growth factor receptor (EGFR) ligands, which are known to promote growth of certain cancer cells. Accordingly, MST4 has a potential role in signal transduction pathways involved in cancer progression. Three alternatively spliced isoforms of MST4 have been isolated, and isoform 3 lacks an exon encoding kinase domain and may function as a dominant-negative regulator of the MST4 kinase.

References

1. Qian, Z. et al., 2001, J Biol Chem. 276 :22439-45.
2. Lin, J.L. et al., 2001, Oncogene. 20: 6559-6569.
3. Sung V, et al., 2003, Cancer research. 63: 3356-63.
4. Ma, X. et al., 2007, Molecular biology of the cell. 18:1965-78.
5. ten Klooster JP, et al., 2009, Developmental cell. 16:551-62.

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