

Human MEK2 / MAP2K2 / MKK2 Protein (GST Tag)

Catalog Number: 10678-H09B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CFC4; FLJ26075; MAPKK2; MEK2; MKK2; PRKMK2

Protein Construction:

A DNA sequence encoding the human MAP2K2 (NP_109587.1) (Met 1-Val 400) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Bio Activity:

No Kinase Activity

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 MAP2K2/GST chimera consists of 624 amino acids and has a calculated molecular mass of 70.7 kDa. It migrates as an approximately 66 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 2mM GSH, 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:

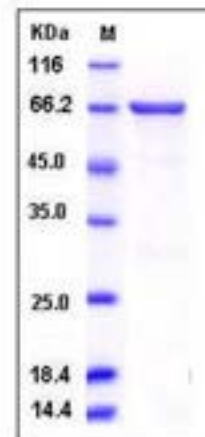
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Dual specificity mitogen-activated protein kinase kinase 2, also known as MAP kinase kinase 2, MAPKK2, ERK activator kinase 2, MAPK / ERK kinase 2, MEK2 and MAP2K2, is a member of the protein kinase superfamily, STE Ser/Thr protein kinase family and MAP kinase kinase subfamily. MAP2K2 / MEK2 contains one protein kinase domain. MEK1 and MEK2 (also known as MAP2K1 and MAP2K2, respectively) are evolutionarily conserved, dual-specificity kinases that mediate Erk1 and Erk2 activation during adhesion and growth factor signaling. MAP2K1 / MEK1 is a crucial modulator of Mek and Erk signaling and have potential implications for the role of MEK1 and MEK2 in tumorigenesis. MAP2K2 / MEK2 catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. It also activates the ERK1 and ERK2 MAP kinases. Defects in MAP2K2 are a cause of cardiofaciocutaneous syndrome (CFC syndrome) which is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy.

References

1. MacDonald, T.J. et al., 2001, Nat Genet. 29 (2):143-52. 2. Mittal R., et al., 2006, Proc. Natl. Acad. Sci. USA. 103:18574-9. 3. Narumi, Y. et al., 2007, Am J Med Genet A. 143A (8):799-807.

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