# Mouse MKK4 / MEK4 / MAP2K4 Protein (His & GST Tag)

Catalog Number: 50643-M20B



# **General Information**

## Gene Name Synonym:

JNKK1; MEK4; MKK4; PRKMK4; Sek1; Serk1

#### **Protein Construction:**

A DNA sequence encoding the mouse MAP2K4 (P47809) (Ala 2-Asp 397) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Mouse

Expression Host: Baculovirus-Insect Cells

**QC** Testing

**Purity:** > 90 % as determined by SDS-PAGE

**Bio Activity:** 

## **No Kinase Activity**

#### **Endotoxin:**

< 1.0 EU per  $\mu g$  of the protein as determined by the LAL method

#### Stability:

Samples are stable for up to twelve months from date of receipt at -70  $^{\circ}\mathrm{C}$ 

Predicted N terminal: Met

## Molecular Mass:

The secreted recombinant mouse MAP2K4/GST chimera consists of 633 amino acids and has a calculated molecular mass of 72 kDa. The recombinant protein migrates as an approximately 65 kDa band in SDS-PAGE under reducing conditions.

## Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.5

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:

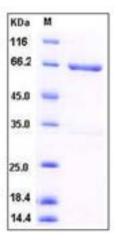
Store it under sterile conditions at  $-20^{\circ}$ C to  $-80^{\circ}$ C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

## 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 4, also known as MAP kinase kinase 4, MAPKK4, JNK-activating kinase 1, MAPK/ERK kinase 4, SAPK/ERK kinase 1, c-Jun N-terminal kinase kinase 1, JNKK and MAP2K4, is a protein which belongs to theprotein kinase superfamily, STE Ser/Thr protein kinase family and MAP kinase kinase subfamily. MAP2K4 / JNKK1 is a protein kinase which is a direct activator of MAP kinases in response to various environmental stresses or mitogenic stimuli. MAP2K4 / JNKK1 has been shown to activate MAPK8 / JNK1, MAPK9 / JNK2, and MAPK14 / p38, but not MAPK1 / ERK2 or MAPK3 / ERK1. MAP2K4 / JNKK1 is phosphorylated, and thus activated by MAP3K1 / MEKK. The stress-activated protein kinase (SAPK) pathways represent phosphorylation cascades that convey pro-apoptotic signals. The mitogenactivated protein kinase kinase (MAPKK) homolog MAP2K4 ( MKK4, SEK, JNKK1 ) is a centrally-placed mediator of the SAPK pathways.

#### References

1.Lin A, et al.,1995, Science 268 (5208): 286-90. 2.Su,G.H. et al., 2002, Hum Mutat. 19 (1):81. 3.Lee, et al., 2002, Proc. Natl. Acad. Sci. USA. 99 (22): 14189-94.

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