

Recombinant Mouse MAP2K4 Protein (2-397 aa), His-SUMO-tagged

Cat. No. MAP2K4-641M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse MAP2K4 Protein (2-397 aa) is produced by E. coli expression system. This protein is fused with a 6xHis-SUMO tag at the N-terminal. Protein Description: Full Length of Mature Protein.
Species	Mouse
Source	E.coli
ProteinLength	2-397 aa
Description	Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K7/MKK7, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The phosphorylation of the Thr residue by MAP2K7/MKK7 ses to be the prerequisite for JNK activation at least in response to proinflammatory cytokines, while other stimuli activate both MAP2K4/MKK4 and MAP2K7/MKK7 which synergistically phosphorylate JNKs. MAP2K4 is required for maintaining peripheral lymphoid homeostasis. The MKK/JNK signaling pathway is

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Whereas MAP2K7/MKK7 exclusively activates JNKs, MAP2K4/MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14.

Form	Tris-based buffer, 50% glycerol
Molecular Mass	60.0 kDa
AA Sequence	AAPSPPSGGGGSGGGGGTPGPIGPPASGHPAVSSMQGKRKALKLNANPPVKSTAR FTLNPNTTGVQNPHERLRTHSIESGKLIKISPEQHWDFTAEDLKDLGEIGRGAYGSV NKMVHKPSGQIMAVKRIRSTVDEKEQKQLMDLDVVMRSSDCPYIVQFYGALFREG DCWICMELMSTSFDFYKYVSVLDDVIPEEILGKITLATVKALNHLKENLKIHRDIKP SNILLDRSGNIKLCDFGISGQLVDSIAKTRDAGCRPYMAPERIDPSASRQGYDVRS VWSLGITLYELATGRFPYPKWNSVFDQLTQVVKGDPPQLSNSEEREFSFSPFINFVNL CLTKDESKRPKYKELLKHPFILMYEERTVEVACYVCKILDQMPATPSSPMYVD
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Concentration	A hardcopy of COA with concentration instruction is sent along with the products.

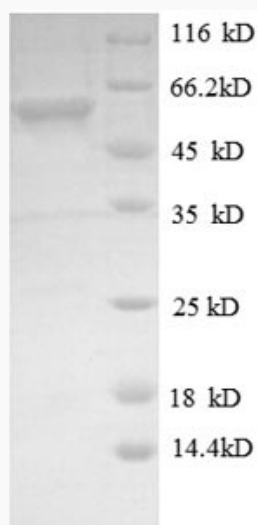
GENE INFORMATION

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Gene Name	Map2k4 mitogen-activated protein kinase kinase 4 [Mus musculus]
Official Symbol	MAP2K4
Synonyms	MAP2K4; MEK 4; JNKK 1; MAPKK 4; JNK kinase 1; MEK4; MKK4; Sek1; JNKK1; Serk1; PRKMK4;
Gene ID	26398
mRNA Refseq	NM_009157
Protein Refseq	NP_033183
UniProt ID	P47809



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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