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

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

## SPECIFICATION

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| **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 |

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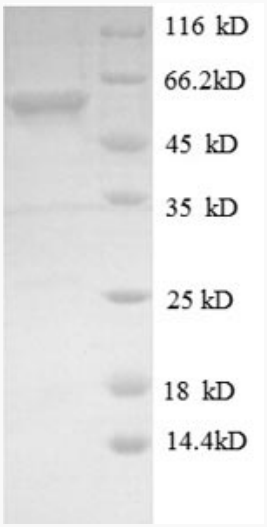
| **Gene Name** | Map2k4 mitogen-activated protein kinase kinase 4 [ Mus musculus ] |
| **Official Symbol** | MAP2K4 |
| **Synonyms** | MAP2K4; MEK 4; JNKK 1; MAPKK 4; JNK kinase 1; MEK4; MKK4; Sek1; JNKK1; Serk1; PRKMK4; |
| **Gene ID** | 26398 |
| **mRNA Refseq** | NM_009157 |
| **Protein Refseq**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




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

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