Dual Specificity Mitogen-Activated Protein Kinase Kinase 7 (MAP2K7) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Dual specificity mitogen-activated protein kinase kinase 7 (Map2k7), Recombinant Protein
Full Product Name	Recombinant Rat Dual specificity mitogen-activated protein kinase kinase 7 (Map2k7)
Product Gene Name	Map2k7 recombinant protein
Product Synonym Gene Name	Map2k7
Sequence	AASSLEQKLS RLEAKLKQEN REARRRIDLN LDISPQRPRP TLQLPLANDG GSRSPSSESS PQHPTPPSRP RHMLGLPSTL FTPRSMESIE IDQKLQEIMK QTGYLTIGGQ RYQAEINDLE NLGEMGSGTC GQVWKMRFRK TGHIIAVKQM RRSGNKEENK RILMDLDVVL KSHDCPYIVQ CFGTFITNTD VFIAMELMGT CAEKLKKRMQ GPIPERILGK MTVAIVKALY YLKEKHGVIH RDVKPSNILL DERGQIKLCD FGISGRLVDS KAKTRSAGCA AYMAPERIDP PDPTKPDYDI RADVWSLGIS LVELATGQFP YKNCKTDFEV LTKVLQEEPP LLPGHMGFSG DFQSFVKDCL TKDHRKRPKY NKLLEHSFIK HYETLEVDVA SWFKDVMAKT ESPRTSGVLS QHHLPFFR
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	47,536 Da
Sequence Positions	2-419, full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q4KSH7
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Map2k7 recombinant protein	This protein is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase specifically activates MAPK8 JNK1 and MAPK9 JNK2, and this kinase itself is phosphorylated and activated by MAP kinase kinase kinases including MAP3K1 MEKK1, MAP3K2 MEKK2,MAP3K3 MEKK5, and MAP4K2 GCK. This kinase is involved in the signal transduction mediating the cell responses to proinflammatory cytokines, and environmental stresses. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found, but only one transcript variant has been supported and defined.
Other Notes	Small volumes of Map2k7 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Map2k7 purchase	MBS1438543 is a recombinant protein targeting Map2k7. Also known as Recombinant Rat Dual specificity mitogen-activated protein kinase kinase 7 (Map2k7). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Map2k7. It may not necessarily be applicable to this product.

NCBI GI #	70794793
NCBI GeneID	363855
NCBI Accession #	NP_001020596.1
UniProt Primary Accession #	Q4KSH7
UniProt Related Accession #	Q4KSH7
GenBank Nucleotide #	NM_001025425.1
NCBI Official Full Name	dual specificity mitogen-activated protein kinase kinase 7
NCBI Official Synonym Full Names	mitogen activated protein kinase kinase 7
NCBI Official Symbol	Map2k7
NCBI Official Synonym Symbols	JNKK; Mek7; Mkk7; Jnkk2; Mapkk7
UniProt Protein Name	Dual specificity mitogen-activated protein kinase kinase 7
UniProt Synonym Protein Names	JNK-activating kinase 2; MAPK/ERK kinase 7; MEK 7; c-Jun N-terminal kinase kinase 2; JNK kinase 2; JNKK 2
Protein Family	Dual specificity mitogen-activated protein kinase kinase
UniProt Gene Name	Map2k7
UniProt Synonym Gene Names	MAP kinase kinase 7; MAPKK 7; MEK 7; JNK kinase 2; JNKK 2
NCBI Protein Information	dual specificity mitogen-activated protein kinase kinase 7
UniProt Comments for Map2k7	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 MAP2K4/MKK4, 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/MKK4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The monophosphorylation of JNKs on the Thr residue is sufficient to increase JNK activity indicating that MAP2K7/MKK7 is important to trigger JNK activity, while the additional phosphorylation of the Tyr residue by MAP2K4/MKK4 ensures optimal JNK activation. Has a specific role in JNK signal transduction pathway activated by proinflammatory cytokines. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis.
Research Articles on Map2k7	**1.** MKK7 down-regulation is a new therapeutic strategy against excitotoxicity and cerebral ischemia.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.

Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/recombinant-protein/dual-specificity-mitogen-activated-protein-kinase-kinase-7-map2k7/1438543