MEK1/2 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	MEK1/2, Blocking Peptide
Full Product Name	MEK1/2 Blocking Peptide
Product Gene Name	MEK1/2 blocking peptide
Product Synonym Names	Dual specificity mitogen activated protein kinase kinase 1; Dual specificity mitogen-activated protein kinase kinase 1; ERK activator kinase 1; MAP kinase kinase 1; MAP kinase/Erk kinase 1; MAP2K1; MAPK/ERK kinase 1; MAPKK 1; MAPKK1; MEK 1; Mek1; MEKK1; Mitogen activated protein kinase kinase 1; MKK 1; MKK1; MP2K1_HUMAN; PRKMK1; Protein kinase mitogen activated kinase 1 (MAP kinase kinase 1); Protein kinase mitogen activated, kinase 1; Cardiofaciocutaneous syndrome; CFC syndrome; CFC4; Dual specificity mitogen activated protein kinase kinase 2; Dual specificity mitogen-activated protein kinase kinase 2; ERK activator kinase 2; FLJ26075; MAP kinase kinase 2; map2k2; MAPK/ERK kinase 2; MAPK/ERK kinase 2; MAPKK 2; MAPKK2; MEK 2; MEK2; Microtubule associated protein kinase kinase 2; Mitogen activated protein kinase kinase 2; Mitogen activated protein kinase kinase 2 p45; MKK 2; MKK2; MP2K2_HUMAN; OTTHUMP00000165826; OTTHUMP00000165827; PRKMK 2; PRKMK2
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	MEK1/2 peptide (MBS9620670) is used for blocking the activity of MEK1/2 antibody (MBS9603193)
Molecular Weight	43,439 Da
Chromosome Location	Chromosome: 15; NC_000015.9 (66679211..66783882). Location: 15q22.1-q22.33
OMIM	115150
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for MEK1/2 blocking peptide	Blocking/Control
Related Product Information for MEK1/2 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of MEK1/2 blocking peptide 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 MEK1/2 purchase	MBS9620670 is a blocking peptide targeting MEK1/2.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MEK1/2. It may not necessarily be applicable to this product.

NCBI GI #	5579478
NCBI GeneID	5604
NCBI Accession #	NP_002746.1
UniProt Primary Accession #	Q02750
UniProt Secondary Accession #	P36507
UniProt Related Accession #	Q02750
GenBank Nucleotide #	NM_002755.3
NCBI Official Full Name	dual specificity mitogen-activated protein kinase kinase 1
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase 1
NCBI Official Symbol	MAP2K1
NCBI Official Synonym Symbols	MEK1; MKK1; MAPKK1; PRKMK1
UniProt Protein Name	Dual specificity mitogen-activated protein kinase kinase 1
UniProt Synonym Protein Names	ERK activator kinase 1; MAPK/ERK kinase 1
UniProt Gene Name	MAP2K1
UniProt Synonym Gene Names	MEK1; PRKMK1; MAP kinase kinase 1; MAPKK 1; MKK1; MEK 1
UniProt Entry Name	MP2K1_HUMAN
NCBI Protein Information	dual specificity mitogen-activated protein kinase kinase 1; MEK 1; MAPKK 1; MAPK/ERK kinase 1; ERK activator kinase 1; protein kinase, mitogen-activated, kinase 1 (MAP kinase kinase 1)
NCBI Summary for MEK1/2	The protein encoded by this gene is a member of the dual specificity protein kinase family, which acts as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This protein kinase lies upstream of MAP kinases and stimulates the enzymatic activity of MAP kinases upon wide variety of extra- and intracellular signals. As an essential component of MAP kinase signal transduction pathway, this kinase is involved in many cellular processes such as proliferation, differentiation, transcription regulation and development. [provided by RefSeq, Jul 2008]

UniProt Comments for MEK1/2	MEK1: a dual-specificity protein kinase of the STE7 kinase family. Phosphorylated and activated by Raf, Mos and Cot kinases. Phosphorylates a Thr and a Tyr residue in a Thr-Glu-Tyr sequence located in the activation loop of ERK1 and ERK2. An essential component of MAP kinase signal transduction pathways involved in many cellular processes such as proliferation, differentiation, transcription regulation and development. Protein type: Protein kinase, STE; Protein kinase, dual-specificity (non-receptor); EC 2.7.12.2; Kinase, protein; STE group; STE7 family Chromosomal Location of Human Ortholog: 15q22.1-q22.33 Cellular Component: dendrite cytoplasm; Golgi apparatus; microtubule; focal adhesion; mitochondrion; endoplasmic reticulum; early endosome; perikaryon; cell cortex; cytosol; axon; perinuclear region of cytoplasm; cytoplasm; late endosome; plasma membrane; microtubule organizing center; nucleus Molecular Function: MAP kinase kinase activity; protein serine/threonine kinase activity; protein serine/threonine kinase activator activity; protein binding; Ras GTPase binding; receptor signaling protein tyrosine phosphatase activity; protein-tyrosine kinase activity; protein serine/threonine/tyrosine kinase activity; mitogen-activated protein kinase kinase kinase binding; ATP binding; protein kinase activity Biological Process: axon guidance; peptidyl-tyrosine phosphorylation; activation of MAPKK activity; nerve growth factor receptor signaling pathway; protein heterooligomerization; activation of MAPK activity; negative regulation of homotypic cell-cell adhesion; response to glucocorticoid stimulus; stress-activated MAPK cascade; cell motility involved in cell locomotion; pathogenesis; toll-like receptor 3 signaling pathway; chemotaxis; signal transduction; toll-like receptor 10 signaling pathway; neuron differentiation; toll-like receptor 5 signaling pathway; negative regulation of cell proliferation; positive regulation of RNA elongation from RNA polymerase II promoter; small GTPase mediated signal transduction; vesicle transport along microtubule; response to axon injury; cell cycle arrest; toll-like receptor 4 signaling pathway; Golgi inheritance; epidermal growth factor receptor signaling pathway; mitosis; fibroblast growth factor receptor signaling pathway; MyD88-independent toll-like receptor signaling pathway; MAPKKK cascade; melanosome transport; toll-like receptor 2 signaling pathway; MyD88-dependent toll-like receptor signaling pathway; keratinocyte differentiation; regulation of stress-activated MAPK cascade; cell proliferation; regulation of vascular smooth muscle contraction; Ras protein signal transduction; insulin receptor signaling pathway; toll-like receptor signaling pathway; innate immune response; positive regulation of Ras protein signal transduction; toll-like receptor 9 signaling pathway; response to oxidative stress; cell motility; positive regulation of cell differentiation; vascular endothelial growth factor receptor signaling pathway; positive regulation of cell migration Disease: Noonan Syndrome 1; Cardiofaciocutaneous Syndrome 3
Research Articles on MEK1/2	**1.** osteosarcoma patients whose tumors expressed pMEK1 had a poorer clinical outcome than those whose tumors did not.
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