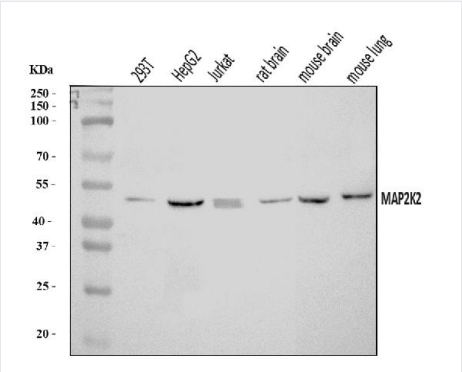
MEK2/MAP2K2 (MAP2K2) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

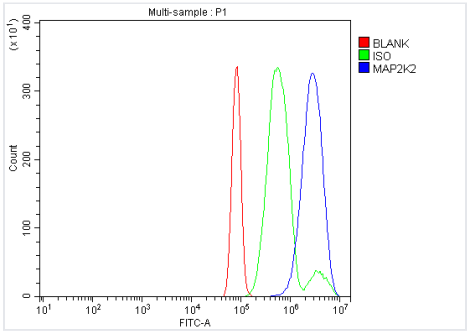
Product Name	MEK2/MAP2K2, Polyclonal Antibody
Full Product Name	Anti-MEK2/MAP2K2 Antibody Picoband
Product Gene Name	anti-MAP2K2 antibody
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Samples	Cell culture supernatants, serum and plasma (heparin, EDTA, citrate)
Detection Range	15.6 pg/ml - 1,000 pg/ml
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (lot specific)
Specificity	Natural and recombinant Human IL2
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.
Molecular Weight	400
OMIM	gene 615280
3D Structure	ModBase 3D Structure for P36507
Immunogen	E Coli-derived human MEK2/MAP2K2 recombinant protein (Position: M1-E45).
Product Categories/Family for anti-MAP2K2 antibody	Primary Antibodies, Rabbit Polyclonal Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-MAP2K2 antibody	ELISA (EIA), Flow Cytometry (FC/FACS), Western Blot (WB)
Application Notes for anti-MAP2K2 antibody	WB: 0.25-0.5 ug/ml, Human, Mouse, Rat FC/FACS: 1-3 ug/1x10^6 cells, Rat Direct ELISA: 0.1-0.5 ug/ml, Human Tested Species: In-house tested species with positive results. Enhanced Chemiluminescent Kit with anti-Rabbit IgG (#MBS176460) for Western blot.
Related Product Information for anti-MAP2K2 antibody	Background: Interleukin-2 (IL2), formerly referred to as T-cell growth factor, is a powerfully immunoregulatory lymphokine that is produced by lectin- or antigenactivated T cells. It is produced not only by mature T lymphocytes on stimulation but also constitutively by certain T-cell lymphoma cell lines. The lymphokine interleukin-2 (IL-2) is responsible for autocrine cell cycle progression and regulation of immune responses. IL-2 expression in mature thymocytes and T cells has been found to be tightly controlled by monoallelic expression. IL-2 can act as a growth hormone for both B and T lymphocytes. The human gene for interleukin 2 (IL2) is assigned to chromosome 4. Human IL-2 is a 15.5KDa glycoprotein, consisting of 153 amino acids in precursor form and 133 amino acids in mature form.

Other Notes	Small volumes of anti-MAP2K2 antibody 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 MAP2K2 purchase	MBS1754854 is an antibody targeting MAP2K2. Also known as Anti-MEK2/MAP2K2 Antibody Picoband. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-MAP2K2 antibody

Figure 1. Western blot analysis of MEK2/MAP2K2 using anti-MEK2/MAP2K2 antibody (MBS1754854).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human 293T whole cell lysates,Lane 2: human HepG2 whole cell lysates,Lane 3: human Jurkat whole cell lysates,Lane 4: rat brain tissue lysates,Lane 5: mouse brain tissue lysates,Lane 6: mouse lung tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MEK2/MAP2K2 antigen affinity purified polyclonal antibody (#MBS1754854) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for MEK2/MAP2K2 at approximately 44 kDa. The expected band size for MEK2/MAP2K2 is at 44 kDa.



Flow Cytometry (FC/FACS) of anti-MAP2K2 antibody

Figure 2. Flow Cytometry analysis of RH35 cells using anti-MEK2/MAP2K2 antibody (MBS1754854).Overlay histogram showing RH35 cells stained with MBS1754854 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MEK2/MAP2K2 Antibody (MBS1754854, 1 ug/1x10^6 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MAP2K2. It may not necessarily be applicable to this product.

NCBI GI #	547915
NCBI GeneID	5605
NCBI Accession #	P36507.1
UniProt Primary Accession #	P36507
UniProt Related Accession #	P36507
NCBI Official Full Name	Dual specificity mitogen-activated protein kinase kinase 2
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase 2
NCBI Official Symbol	MAP2K2
NCBI Official Synonym Symbols	CFC4; MEK2; MKK2; MAPKK2; PRKMK2
UniProt Protein Name	Dual specificity mitogen-activated protein kinase kinase 2
UniProt Synonym Protein Names	ERK activator kinase 2; MAPK/ERK kinase 2; MEK 2
Protein Family	Dual specificity mitogen-activated protein kinase kinase
UniProt Gene Name	MAP2K2
UniProt Synonym Gene Names	MEK2; MKK2; PRKMK2; MAP kinase kinase 2; MAPKK 2; MEK 2

UniProt Entry Name	MP2K2_HUMAN
NCBI Protein Information	dual specificity mitogen-activated protein kinase kinase 2; MAPK/ERK kinase 2; MAP kinase kinase 2; ERK activator kinase 2; mitogen-activated protein kinase kinase 2, p45
NCBI Summary for MAP2K2	The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is known to play a critical role in mitogen growth factor signal transduction. It phosphorylates and thus activates MAPK1/ERK2 and MAPK2/ERK3. The activation of this kinase itself is dependent on the Ser/Thr phosphorylation by MAP kinase kinase kinases. Mutations in this gene cause cardiofaciocutaneous syndrome (CFC syndrome), a disease characterized by heart defects, mental retardation, and distinctive facial features similar to those found in Noonan syndrome. The inhibition or degradation of this kinase is also found to be involved in the pathogenesis of Yersinia and anthrax. A pseudogene, which is located on chromosome 7, has been identified for this gene. [provided by RefSeq, Jul 2008]
UniProt Comments for MAP2K2	MEK2: a dual-specificity protein kinase of the STE7 kinase family. Phosphorylated and activated by Raf and Mos kinases. Phosphorylates a Thr and a Tyr residue in a Thr-Glu-Tyr sequence located in the activation loop of ERK2 and ERK3. A component of MAP kinase signal transduction pathways involved in mitogen growth factor signal transduction. Protein type: EC 2.7.12.2; Protein kinase, dual-specificity (non-receptor); Protein kinase, STE; Kinase, protein; STE group; STE7 family Chromosomal Location of Human Ortholog: 19p13.3 Cellular Component: Golgi apparatus; peroxisomal membrane; microtubule; internal side of plasma membrane; focal adhesion; mitochondrion; endoplasmic reticulum; early endosome; extracellular region; intercellular junction; cell cortex; cytosol; perinuclear region of cytoplasm; late endosome; cytoplasm; nucleus Molecular Function: MAP kinase kinase activity; protein serine/threonine kinase activity; protein serine/threonine kinase activator activity; protein binding; protein-tyrosine kinase activity; protein serine/threonine/tyrosine kinase activity; protein complex scaffold; ATP binding; PDZ domain binding Biological Process: epidermal growth factor receptor signaling pathway; axon guidance; fibroblast growth factor receptor signaling pathway; peptidyl-tyrosine phosphorylation; activation of MAPKK activity; nerve growth factor receptor signaling pathway; activation of MAPK activity; MyD88-independent toll-like receptor signaling pathway; MAPKKK cascade; stress-activated MAPK cascade; pathogenesis; toll-like receptor 3 signaling pathway; toll-like receptor 2 signaling pathway; toll-like receptor 10 signaling pathway; MyD88-dependent toll-like receptor signaling pathway; toll-like receptor 5 signaling pathway; regulation of stress-activated MAPK cascade; small GTPase mediated signal transduction; Ras protein signal transduction; insulin receptor signaling pathway; toll-like receptor signaling pathway; innate immune response; toll-like receptor 9 signaling pathway; vascular endothelial growth factor receptor signaling pathway; toll-like receptor 4 signaling pathway Disease: Cardiofaciocutaneous Syndrome 4
Research Articles on MAP2K2	**1.** Both ACE inhibition and MEK1/2 inhibition have beneficial effects on left ventricular function in Lmna(H222P/H222P) mice and both drugs together have a synergistic benefit when initiated after the onset of left ventricular dysfunction.
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.
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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.

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