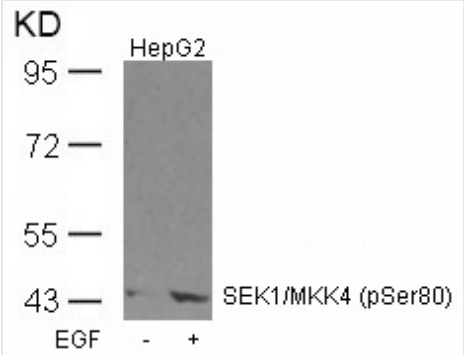
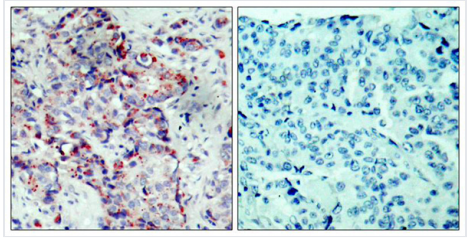
SEK1/MKK4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

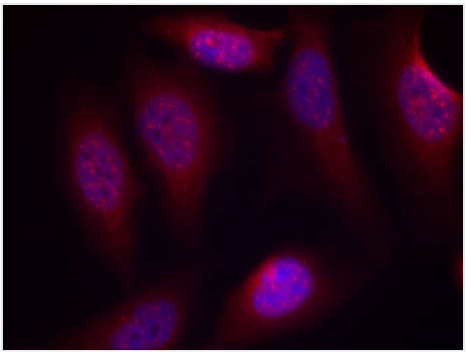
Product Name	SEK1/MKK4, Polyclonal Antibody
Full Product Name	SEK1/MKK4 (Phospho-Ser80) Antibody
Product Gene Name	anti-SEK1/MKK4 antibody
Product Synonym Names	JNKK; JNKK1; MAP2K4; MAPK/ERK kinase 4; MAPKK 4
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy usi
Concentration	1.0 mg/ml (lot specific)
Specificity	The antibody detects endogenous level of SEK1/MKK4 only when phosphorylated at serine 80.
Preparation and Storage	Store at -20 degree C for long term preservation (recommended). Store at 4 degree C for short term use.
Molecular Weight	45,584 Da
OMIM	601335
3D Structure	ModBase 3D Structure for P45985
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of serine 80 (T-H-S(p)-I-E) derived from Human SEK1/MKK4.
Modification	Phospho-Ser80
Target Name	SEK1/MKK4
Product Categories/Family for anti-SEK1/MKK4 antibody	Phospho-specific Ab
Applications Tested/Suitable for anti-SEK1/MKK4 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)
Application Notes for anti-SEK1/MKK4 antibody	Western blotting: 1:500~1:1000 Immunohistochemistry: 1:50~1:100 Immunofluorescence: 1:100~1:200
Related Product Information for anti-SEK1/MKK4 antibody	Dual specificity kinase that activates the JUN kinases MAPK8 (JNK1) and MAPK9 (JNK2) as well as MAPK14 (p38) but not MAPK1 (ERK2) or MAPK3 (ERK1).
Other Notes	Small volumes of anti-SEK1/MKK4 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 SEK1/MKK4 purchase	MBS9410195 is an antibody targeting SEK1/MKK4. Also known as SEK1/MKK4 (Phospho-Ser80) Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-SEK1/MKK4 antibody
Western blot analysis of extracts from HepG2 cells untreated or treated with EGF using SEK1/MKK4(Phospho-Ser80) Antibody.



Immunohistochemistry (IHC) of anti-SEK1/MKK4 antibody
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using SEK1/MKK4(Phospho-Ser80) Antibody (left) or the same antibody preincubated with blocking peptide(right).



Immunofluorescence (IF) of anti-SEK1/MKK4 antibody
Immunofluorescence staining of methanol-fixed Hela cells using SEK1/MKK4(Phospho-Ser80) Antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SEK1/MKK4. It may not necessarily be applicable to this product.

NCBI GI #	526479851
NCBI GeneID	6416
NCBI Accession #	NP_001268364.1
UniProt Primary Accession #	P45985
UniProt Secondary Accession #	Q5U0B8; Q6FHX4; Q6P9H2; Q6PIE6; B2R7N7; B3KYB2; D3DTS5
UniProt Related Accession #	P45985
GenBank Nucleotide #	NM_001281435.1
NCBI Official Full Name	dual specificity mitogen-activated protein kinase kinase 4 isoform 2
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase 4
NCBI Official Symbol	MAP2K4
NCBI Official Synonym Symbols	JNKK; MEK4; MKK4; SEK1; SKK1; JNKK1; SERK1; MAPKK4; PRKMK4; SAPKK1; SAPKK-1
UniProt Protein Name	Dual specificity mitogen-activated protein kinase kinase 4
UniProt Synonym Protein Names	JNK-activating kinase 1; MAPK/ERK kinase 4; MEK 4; SAPK/ERK kinase 1; SEK1; Stress-activated protein kinase kinase 1; SAPK kinase 1; SAPKK-1; SAPKK1; c-Jun N-terminal kinase kinase 1; JNKK
UniProt Gene Name	MAP2K4
UniProt Synonym Gene Names	JNKK1; MEK4; MKK4; PRKMK4; SEK1; SERK1; SKK1; MAP kinase kinase 4; MAPKK 4; MEK 4; SEK1; SAPK kinase 1; SAPKK-1; SAPKK1; JNKK

UniProt Entry Name	MP2K4_HUMAN
NCBI Protein Information	dual specificity mitogen-activated protein kinase kinase 4
NCBI Summary for SEK1/MKK4	This gene encodes a member of the mitogen-activated protein kinase (MAPK) family. Members of this family act as an integration point for multiple biochemical signals and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation, and development. They form a three-tiered signaling module composed of MAPKKKs, MAPKKs, and MAPKs. This protein is phosphorylated at serine and threonine residues by MAPKKKs and subsequently phosphorylates downstream MAPK targets at threonine and tyrosine residues. A similar protein in mouse has been reported to play a role in liver organogenesis. A pseudogene of this gene is located on the long arm of chromosome X. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]
UniProt Comments for SEK1/MKK4	MKK4: dual specificity kinase of the STE7 family that phosphorylates and activates JNK1 and -2 as well as p38 but not ERK1 or -2. Mediates cellular responses to various cellular stresses and inflammatory cytokines. Phosphorylation by Akt inhibits MKK4 and suppresses stress-activated signal transduction. Protein type: Protein kinase, dual-specificity (non-receptor); Kinase, protein; EC 2.7.12.2; Protein kinase, STE; STE group; STE7 family Chromosomal Location of Human Ortholog: 17p12 Cellular Component: dendrite cytoplasm; axon; perikaryon; intracellular; cytosol; nucleus Molecular Function: protein serine/threonine kinase activity; protein binding; protein-tyrosine kinase activity; mitogen-activated protein kinase kinase kinase binding; JUN kinase kinase activity; ATP binding; protein kinase activity Biological Process: peptidyl-tyrosine phosphorylation; apoptosis; MyD88-independent toll-like receptor signaling pathway; stress-activated MAPK cascade; pathogenesis; toll-like receptor 3 signaling pathway; signal transduction; activation of JNK activity; 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; positive regulation of neuron apoptosis; toll-like receptor signaling pathway; JNK cascade; innate immune response; toll-like receptor 9 signaling pathway; toll-like receptor 4 signaling pathway; positive regulation of DNA replication; positive regulation of nitric-oxide synthase biosynthetic process
Research Articles on SEK1/MKK4	**1.** Data suggest a genetic interaction between MAP2K4 and HLA-DRB1, and the importance of rs10468473 and MAP2K4 splice variants in the development of autoantibody-positive RA.
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