SAPK1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SAPK1, Polyclonal Antibody
Full Product Name	SAPK1, JNK (Stress Activated Protein Kinase, Jun Kinase) (HRP)
Product Gene Name	anti-SAPK1 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Horseradish Peroxidase (HRP).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes SAPK1a (54kD). Weakly recognizes SAPK1b (54kD). The protein detected with a MWapp of 45kD may be SAPK1c. Species Reactivity: Human, mouse and rat.
Preparation and Storage	May be stored at 4 degree C for short-term only. For long-term storage, store at -20 degree C. Aliquots are stable for at least 12 months at -20 degree C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.
Molecular Weight	427
OMIM	601158
3D Structure	ModBase 3D Structure for P45983
Immunogen	GST fusion protein corresponding to full-length rat SAPK1a. This sequence is approximately 85% identical to rat SAPK1b and rat SAPK1c. These sequences are highly conserved among mammalian species.
Conjugate	HRP
Included Positive Antigen Control	Non-stimulated A431 cell lysate. Use 20ug per lane for minigels.
Note	Preservative Free
Product Categories/Family for anti-SAPK1 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-SAPK1 antibody	Immunoblot (IB), Immunoprecipitation (IP)
Application Notes for anti-SAPK1 antibody	IB: 1ug/ml detected SAPK1 in RIPA lysates from human A431, murine 3T3 and rat PC-12 cells. At 1ug/ml, the signal detected with 10ng of gst-SAPK1a was approximately three times greater than the signal detected of with 10ng gst-SAPK1b. Applications are based on unconjugated antibody.
Related Product Information for anti-SAPK1 antibody	MBS6498442 is an antibody targeting SAPK1. Also known as SAPK1, JNK (Stress Activated Protein Kinase, Jun Kinase) (HRP). Reactive in Human, Mouse, Rat. Host: Rabbit.
Product References and Citations for anti-SAPK1 antibody	General 1. Mukhopadhyay, N.K., et al., J. Biol. Chem 267: 3325-3335, 1992. 2. Kyriakis, J.M., et al., J. Biol. Chem. 266: 10043-10046, 1991. 3. Davis, R.J., Trends Biochem. Sci. 19: 470-475, 1994. 4. Hibi, M., et al., Genes Dev. 7: 2135-2148, 1993. 5. Smeal, T., et al., EMBO J. 13: 6006-6010, 1994. 6. Derijard, B., et al., Cell 76: 1025-1030, 1994. 7. Kyriakis, J.M., et al., Nature 369: 156-160, 1994. 8. Sluss, H.K., et al., Mol. Cell. Biol. 14: 8376-8384, 1994. 9. Sanchez, et al., Nature 372: 794-798, 1994. 10. Kyriakis, J.M., and Avruch, J., J. Biol. Chem 265: 17355-17363, 1990.

Other Notes	Small volumes of anti-SAPK1 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SAPK1. It may not necessarily be applicable to this product.

NCBI GI #	2507195
NCBI GeneID	5599
NCBI Accession #	P45983.2
UniProt Primary Accession #	P45983
UniProt Secondary Accession #	Q15709; Q15712; Q15713; Q308M2; B5BTZ5; B7ZLV4; D3DX88; D3DX92
UniProt Related Accession #	P45983
NCBI Official Full Name	Mitogen-activated protein kinase 8
NCBI Official Synonym Full Names	mitogen-activated protein kinase 8
NCBI Official Symbol	MAPK8
NCBI Official Synonym Symbols	JNK; JNK1; PRKM8; SAPK1; JNK-46; JNK1A2; SAPK1c; JNK21B1/2
UniProt Protein Name	Mitogen-activated protein kinase 8
UniProt Synonym Protein Names	JNK-46; Stress-activated protein kinase 1c; SAPK1c; Stress-activated protein kinase JNK1; c-Jun N-terminal kinase 1
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	MAPK8
UniProt Synonym Gene Names	JNK1; PRKM8; SAPK1; SAPK1C; MAP kinase 8; MAPK 8; SAPK1c
UniProt Entry Name	MK08_HUMAN
NCBI Protein Information	mitogen-activated protein kinase 8; MAP kinase 8; JUN N-terminal kinase; c-Jun N-terminal kinase 1; stress-activated protein kinase 1; stress-activated protein kinase 1c; mitogen-activated protein kinase 8 isoform JNK1 beta2; mitogen-activated protein kin
NCBI Summary for SAPK1	The protein encoded by this gene is a member of the MAP kinase family. MAP kinases 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. This kinase is activated by various cell stimuli, and targets specific transcription factors, and thus mediates immediate-early gene expression in response to cell stimuli. The activation of this kinase by tumor-necrosis factor alpha (TNF-alpha) is found to be required for TNF-alpha induced apoptosis. This kinase is also involved in UV radiation induced apoptosis, which is thought to be related to cytochrom c-mediated cell death pathway. Studies of the mouse counterpart of this gene suggested that this kinase play a key role in T cell proliferation, apoptosis and differentiation. Five alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jun 2013]

UniProt Comments for SAPK1	JNK1: a protein kinase of the MAPK family that is potently activated by a variety of environmental stresses, including UV and gamma radiation, ceramides, pro-inflammatory cytokines and, in some instances, by growth factors and GPCR agonists. Substrates include a number of transcription factors, primarily components of AP-1 such as c-Jun and ATF2, thus regulating AP-1 transcriptional activity. In T- cells, JNK1 and JNK2 are required for polarized differentiation of T-helper cells into Th1 cells. Binds to at least four scaffolding proteins, JIP-1, -2, -3 and -4. Activity increased in obesity. Inhibition or mouse knockout increases insulin sensitivity. Part of NFB pathway involved in inflammation and cancer, and signals downstream of Ras, though possibly as an apoptotic negative regulator of growth. Four alternatively-spliced isoforms have been described. Protein type: Kinase, protein; EC 2.7.11.24; Protein kinase, CMGC; Protein kinase, Ser/Thr (non-receptor); CMGC group; MAPK family; MAPK/JNK subfamily; JNK subfamily Chromosomal Location of Human Ortholog: 10q11.22 Cellular Component: nucleoplasm; mitochondrion; cytosol; nucleus Molecular Function: protein serine/threonine kinase activity; protein binding; enzyme binding; histone deacetylase regulator activity; histone deacetylase binding; JUN kinase activity; ATP binding Biological Process: nerve growth factor receptor signaling pathway; apoptosis; positive regulation of apoptosis; rhythmic process; stress-activated MAPK cascade; toll-like receptor 3 signaling pathway; protein amino acid phosphorylation; toll-like receptor 10 signaling pathway; toll-like receptor 5 signaling pathway; regulation of protein localization; regulation of transcription factor activity; response to stress; JNK cascade; negative regulation of protein binding; toll-like receptor 4 signaling pathway; response to UV; ossification; regulation of histone deacetylation; MyD88-independent toll-like receptor signaling pathway; peptidyl-threonine phosphorylation; regulation of circadian rhythm; JUN phosphorylation; toll-like receptor 2 signaling pathway; MyD88-dependent toll-like receptor signaling pathway; peptidyl-serine phosphorylation; response to cadmium ion; toll-like receptor signaling pathway; innate immune response; toll-like receptor 9 signaling pathway; negative regulation of apoptosis
Research Articles on SAPK1	**1.** Overexpression of uPAR and cathepsin B increases expression of cytosolic p-JNK.
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