ASK1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ASK1, Polyclonal Antibody
Full Product Name	ASK1 (phospho-Thr845) rabbit pAb
Product Gene Name	anti-ASK1 antibody
Product Synonym Names	Mitogen-activated protein kinase kinase kinase 5 (EC 2.7.11.25)(Apoptosis signal-regulating kinase 1)(ASK-1)(MAPK/ERK kinase kinase 5)(MEK kinase 5)(MEKK 5)
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Purity/Purification	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
Specificity	This antibody detects endogenous levels of Human ASK1 (phospho-Thr845)
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
Molecular Weight	154,537 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (136878187..137113656, complement). Location: 6q22.33
OMIM	602448
3D Structure	ModBase 3D Structure for Q99683
Immunogen	Synthesized phosho peptide around human ASK1 (Thr845)
Product Categories/Family for anti-ASK1 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-ASK1 antibody	Western Blot (WB)
Application Notes for anti-ASK1 antibody	WB: 1:1000-2000
Related Product Information for anti-ASK1 antibody	mitogen-activated protein kinase kinase kinase 5 (MAP3K5) Homo sapiens Mitogen-activated protein kinase (MAPK) signaling cascades include MAPK or extracellular signal-regulated kinase (ERK), MAPK kinase (MKK or MEK), and MAPK kinase kinase (MAPKKK or MEKK). MAPKK kinase/MEKK phosphorylates and activates its downstream protein kinase, MAPK kinase/MEK, which in turn activates MAPK. The kinases of these signaling cascades are highly conserved, and homologs exist in yeast, Drosophila, and mammalian cells. MAPKKK5 contains 1,374 amino acids with all 11 kinase subdomains. Northern blot analysis shows that MAPKKK5 transcript is abundantly expressed in human heart and pancreas. The MAPKKK5 protein phosphorylates and activates MKK4 (aliases SERK1, MAPKK4) in vitro, and activates c-Jun N-terminal kinase (JNK)/stress-activated protein kinase (SAPK) during transient expression in COS and 293 cells; MAPKKK5 does not activate MAPK/ERK.
Other Notes	Small volumes of anti-ASK1 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 ASK1 purchase	MBS8586276 is an antibody targeting ASK1. Also known as ASK1 (phospho-Thr845) rabbit pAb. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ASK1. It may not necessarily be applicable to this product.

NCBI GI #	5174547
NCBI GeneID	4217
NCBI Accession #	NP_005914.1
UniProt Primary Accession #	Q99683
UniProt Secondary Accession #	Q5THN3; Q99461
UniProt Related Accession #	Q99683
GenBank Nucleotide #	NM_005923.3
NCBI Official Full Name	mitogen-activated protein kinase kinase kinase 5
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase kinase 5
NCBI Official Symbol	MAP3K5
NCBI Official Synonym Symbols	ASK1; MEKK5; MAPKKK5
UniProt Protein Name	Mitogen-activated protein kinase kinase kinase 5
UniProt Synonym Protein Names	Apoptosis signal-regulating kinase 1; ASK-1; MAPK/ERK kinase kinase 5
Protein Family	DASH complex
UniProt Gene Name	MAP3K5
UniProt Synonym Gene Names	ASK1; MAPKKK5; MEKK5; ASK-1; MEK kinase 5; MEKK 5
UniProt Entry Name	M3K5_HUMAN
NCBI Protein Information	mitogen-activated protein kinase kinase kinase 5; ASK-1; MEKK 5; MEK kinase 5; MAP/ERK kinase kinase 5; MAPK/ERK kinase kinase 5; apoptosis signal regulating kinase 1; apoptosis signal-regulating kinase 1
NCBI Summary for ASK1	Mitogen-activated protein kinase (MAPK) signaling cascades include MAPK or extracellular signal-regulated kinase (ERK), MAPK kinase (MKK or MEK), and MAPK kinase kinase (MAPKKK or MEKK). MAPKK kinase/MEKK phosphorylates and activates its downstream protein kinase, MAPK kinase/MEK, which in turn activates MAPK. The kinases of these signaling cascades are highly conserved, and homologs exist in yeast, Drosophila, and mammalian cells. MAPKKK5 contains 1,374 amino acids with all 11 kinase subdomains. Northern blot analysis shows that MAPKKK5 transcript is abundantly expressed in human heart and pancreas. The MAPKKK5 protein phosphorylates and activates MKK4 (aliases SERK1, MAPKK4) in vitro, and activates c-Jun N-terminal kinase (JNK)/stress-activated protein kinase (SAPK) during transient expression in COS and 293 cells; MAPKKK5 does not activate MAPK/ERK. [provided by RefSeq, Jul 2008]

UniProt Comments for ASK1	ASK1: a MAP kinase kinase kinase of the STE11 family, apoptosis signal-regulating kinase 1 (ASK1) plays essential roles in stress-induced apoptosis. Activated by various stressors, including oxidative stress, endoplasmic reticulum stress, and calcium overload, as well as by receptor-mediated inflammatory signals, such as the tumor necrosis factor (TNF) and lipopolysaccharide (LPS). In turn, ASK1 phosphorylates and activates two different subgroups of MAP kinase kinases, MKK4/SEK1 and MKK3/MKK6, which in turn activate stress-activated protein kinases (JNKs) and p38 subgroups of MAP kinases, respectively. Overexpression activates JNK and p38 and induces apoptosis in several cell types through signals involving the mitochondrial cell death pathway. Embryonic fibroblasts or primary neurons derived from ASK1-/- mice are resistant to stress-induced JNK and p38 activation as well as cell death. Oxidative stress induces the activation of ASK1, which correlate with ASK1 activity and ASK1-dependent apoptosis. Required for the innate immune response, which is essential for host defense against a wide range of pathogens. Protein type: Kinase, protein; Protein kinase, STE; Protein kinase, Ser/Thr (non-receptor); EC 2.7.11.25; STE group; STE11 family Chromosomal Location of Human Ortholog: 6q22.33 Cellular Component: cytosol Molecular Function: protein binding; protein homodimerization activity; MAP kinase kinase kinase activity; magnesium ion binding; caspase activator activity; protein phosphatase binding; protein kinase binding; ATP binding; protein kinase activity Biological Process: caspase activation; positive regulation of JNK activity; viral reproduction; activation of MAPKK activity; positive regulation of apoptosis; MAPKKK cascade; positive regulation of JNK cascade; positive regulation of caspase activity; protein amino acid phosphorylation; activation of JNK activity; innate immune response; JNK cascade; induction of apoptosis by oxidative stress
Research Articles on ASK1	**1.** Report changes in ASK1 cell signaling associated with ischemic/idiopathic cardiomyopathies.
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