

Rabbit ASK1 Polyclonal Antibody | anti-ASK1 antibody

Phospho-ASK1 (Ser1033) Antibody

CATALOG # AAA329229	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry
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PRODUCT SYNONYMS

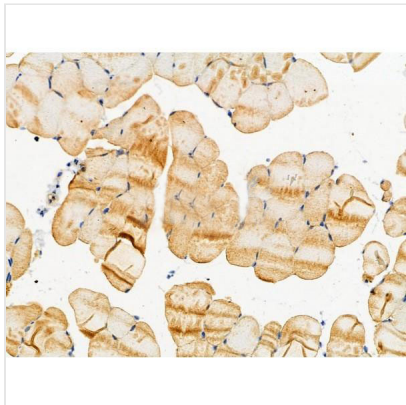
ASK1; Polyclonal Antibody; Phospho-ASK1 (Ser1033) Antibody; Apoptosis signal regulating kinase 1; Apoptosis signal-regulating kinase 1; ASK 1; ASK-1; M3K5; M3K5_HUMAN; MAP/ERK kinase kinase 5; MAP3K5; MAPK/ERK kinase kinase 5; MAPKKK5; MEK kinase 5; MEKK 5; MEKK5; Mitogen activated protein kinase kinase kinase 5; Mitogen-activated protein kinase kinase kinase 5; anti-ASK1 antibody

PRODUCT SPECIFICATIONS

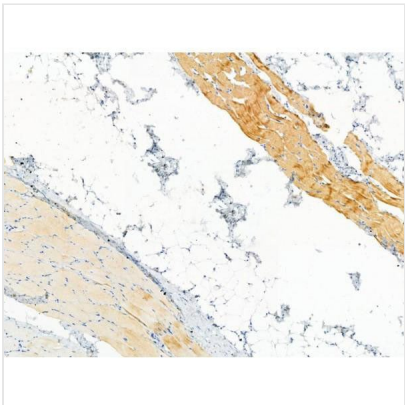
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-ASK1 (Ser1033) Antibody detects endogenous levels of ASK1 only when phosphorylated at Ser1033. Tissue Specificity: Abundantly expressed in heart and pancreas.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ASK1 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human ASK1 around the phosphorylation site of Ser1033.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated at Thr-838 through autophosphorylation and by MAP3K6/ASK2 which leads to activation. Thr-838 is dephosphorylated by PPP5C. Ser-83 and Ser-1033 are inactivating phosphorylation sites, the former of which is phosphorylated by AKT1 and AKT2. Phosphorylated at Ser-966 which induces association of MAP3K5/ASK1 with the 14-3-3 family proteins and suppresses MAP3K5/ASK1 activity. Calcineurin (CN) dephosphorylates this site. Also dephosphorylated and activated by PGAM5. Ubiquitinated. Tumor necrosis factor (TNF) induces TNFR2-dependent ubiquitination leading to proteasomal degradation.
Subunit Structure	Homodimer when inactive. Binds both upstream activators and downstream substrates in multimolecular complexes. Part of a cytoplasmic complex made of HIPK1, DAB2IP and MAP3K5 in response to TNF. This complex formation promotes MAP3K5-JNK activation and subsequent apoptosis. Interacts with SOCS1 which recognizes phosphorylation of Tyr-718 and induces MAP3K5/ASK1 degradation in endothelial cells. Interacts with the 14-3-3 family proteins such as YWHAB, YWHAE, YWHAQ, YWHAH, YWHAZ and SFN. Interacts with ARRB2, BIRC2, DAB2IP, IGF1R, MAP3K6/ASK2, PGAM5, PIM1, PPP5C, SOCS1, STUB1, TRAF2, TRAF6 and TXN. Interacts with ERN1 in a TRAF2-dependent manner. Interacts with calcineurin subunit PPP3R1 and with PPM1L (By similarity). Interacts (via N-terminus) with RAF1 and this interaction inhibits the proapoptotic function of MAP3K5. Interacts with DAB2IP (via N-terminus C2 domain); the interaction occurs in a TNF-alpha-dependent manner. Interacts with DUSP13/DUSP13A; may positively regulate apoptosis. Interacts with DAXX. Interacts with RC3H2. (Microbial infection) Interacts with HIV-1 Nef; this interaction inhibits MAP3K5 signaling.
Similarity	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.

Subcellular Location	Cytoplasm. Endoplasmic reticulum. Note: Interaction with 14-3-3 proteins alters the distribution of MAP3K5/ASK1 and restricts it to the perinuclear endoplasmic reticulum region.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohiostchemistry)
 Staining Mouse muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
 At 1/100 staining Rat skin tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-ASK1 antibody	Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Mediates signaling for determination of cell fate such as differentiation and survival. Plays a crucial role in the apoptosis signal transduction pathway through mitochondria-dependent caspase activation. MAP3K5/ASK1 is required for the innate immune response, which is essential for host defense against a wide range of pathogens. Mediates signal transduction of various stressors like oxidative stress as well as by receptor-mediated inflammatory signals, such as the tumor necrosis factor (TNF) or lipopolysaccharide (LPS). Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade and the p38 MAPK signal transduction cascade through the phosphorylation and activation of several MAP kinase kinases like MAP2K4/SEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs and c-jun N-terminal kinases (JNKs). Both p38 MAPK and JNKs control the transcription factors activator protein-1 (AP-1).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	5174547
NCBI GeneID	4217
NCBI Accession #	NP_005914.1
NCBI GenBank Nucleotide #	NM_005923.3
UniProt Accession #	Q99683; Q5THN3; Q99461
Molecular Weight	154,537 Da
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

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
UniProt Protein Name	Mitogen-activated protein kinase kinase kinase 5
UniProt Gene Name	MAP3K5
UniProt Synonym Gene Names	ASK1; MAPKKK5; MEKK5; ASK-1; MEK kinase 5; MEKK 5
UniProt Entry Name	M3K5_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ask1-antibody-peptide-elisa-immunohistochemistry-elisa/329229>