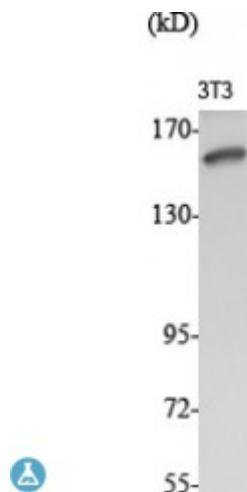


Anti-ASK 1 antibody



Description	Rabbit polyclonal to ASK 1.
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Model	STJ91736
Host	Rabbit
Reactivity	Human
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human ASK 1 around the non-phosphorylation site of S83.
Immunogen Region	20-100 aa
Gene ID	4217
Gene Symbol	MAP3K5
Dilution range	WB 1:500-1:2000IHC 1:100-1:300ELISA 1:20000
Specificity	ASK 1 Polyclonal Antibody detects endogenous levels of ASK 1 protein.
Tissue Specificity	Abundantly expressed in heart and pancreas.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Mitogen-activated protein kinase kinase kinase 5 Apoptosis signal-regulating kinase 1 ASK-1 MAPK/ERK kinase kinase 5 MEK kinase 5 MEKK 5
Molecular Weight	155 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:6857 OMIM:602448
Alternative Names	Mitogen-activated protein kinase kinase kinase 5 Apoptosis signal-regulating kinase 1 ASK-1 MAPK/ERK kinase kinase 5 MEK kinase 5 MEKK 5
Function	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).
Cellular Localization	Cytoplasm. Endoplasmic reticulum. Interaction with 14-3-3 proteins alters the distribution of MAP3K5/ASK1 and restricts it to the perinuclear endoplasmic reticulum region.
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.