

ARG51674 anti-ASK1 phospho (Ser83) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ASK1 phospho (Ser83)
Tested Reactivity	Hu
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ASK1
Species	Human
Immunogen	Peptide sequence around phosphorylation site of serine 83 (G-S-S(p)-V-G) derived from Human ASK1.
Conjugation	Un-conjugated
Alternate Names	ASK-1; MEK kinase 5; ASK1; MAPK/ERK kinase kinase 5; Mitogen-activated protein kinase kinase kinase 5; MEKK5; Apoptosis signal-regulating kinase 1; MEKK 5; EC 2.7.11.25; MAPKKK5

Application Instructions

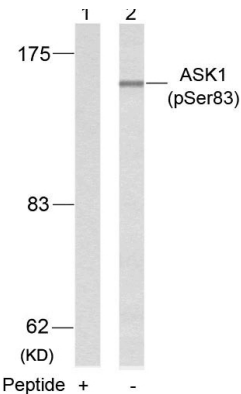
Application table	Application	Dilution
	IHC-P	1:50 - 1:100
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Buffer	PBS (without Mg2+ and Ca2+, pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

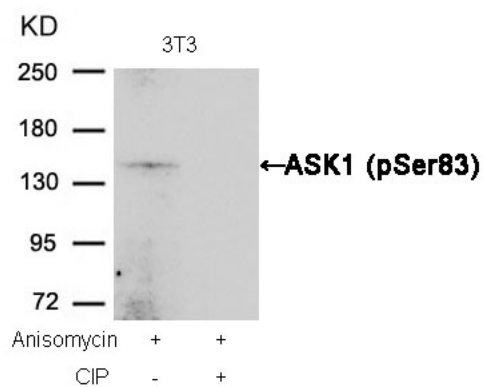
Note	For laboratory research only, not for drug, diagnostic or other use.
Bioinformation	
Database links	GeneID: 4217 Human Swiss-port # Q99683 Human
Gene Symbol	MAP3K5
Gene Full Name	mitogen-activated protein kinase kinase kinase 5
Background	Component of a protein kinase signal transduction cascade. Phosphorylates and activates MAP2K4 and MAP2K6, which in turn activate the JNK and p38 MAP kinases, respectively. Overexpression induces apoptotic cell death.
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). [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Cell Death antibody
Calculated Mw	155 kDa
PTM	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.

Images



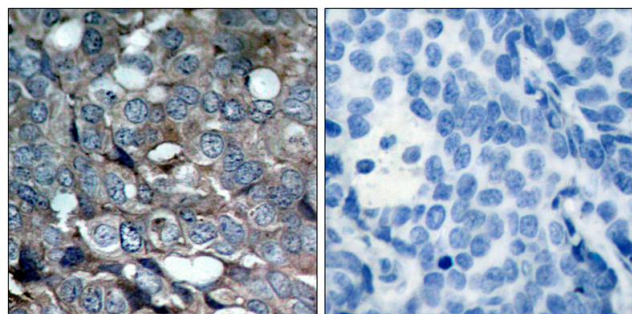
ARG51674 anti-ASK1 phospho (Ser83) antibody WB image

Western blot: Extracts from K562 cells stained with ARG51674 anti-ASK1 phospho (Ser83) antibody (Lane 2) and the same antibody preincubated with blocking peptide (Lane1).



ARG51674 anti-ASK1 phospho (Ser83) antibody WB image

Western blot: Extracts from 3T3 cells, treated with Anisomycin or calf intestinal phosphatase (CIP), stained with ARG51674 anti-ASK1 phospho (Ser83) antibody.



ARG51674 anti-ASK1 phospho (Ser83) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast carcinoma tissue stained with ARG51674 anti-ASK1 phospho (Ser83) antibody (left) or the same antibody preincubated with blocking peptide (right).