



ASK 1 Monoclonal Antibody

Catalog No	YP-Ab-14122
Isotype	IgG
Reactivity	Human
Applications	WB;IHC;IF;FCM;ELISA
Gene Name	MAP3K5
Protein Name	Mitogen-activated protein kinase kinase kinase 5
Immunogen	Purified recombinant fragment of human ASK 1 expressed in E. Coli.
Specificity	ASK 1 Monoclonal Antibody detects endogenous levels of ASK 1 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	MAP3K5; ASK1; MAPKKK5; MEKK5; Mitogen-activated protein kinase kinase kinase 5; Apoptosis signal-regulating kinase 1; ASK-1; MAPK/ERK kinase kinase 5; MEK kinase 5; MEKK 5
Observed Band	
Cell Pathway	Cytoplasm . Endoplasmic reticulum. Interaction with 14-3-3 proteins alters the distribution of MAP3K5/ASK1 and restricts it to the perinuclear endoplasmic reticulum region.
Tissue Specificity	Abundantly expressed in heart and pancreas.
Function	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Contains an N-terminal autoinhibitory domain. Activated by phosphorylation at Thr-838, inhibited by phosphorylation at Ser-966 and Ser-1033. Binds to, and stabilizes MAP3K6 and is activated by MAP3K6 by phosphorylation on Thr-838.,function: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.,induction:By TNF-alpha. Inhibited by HIV-1 Nef.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Homodimer when inactive. Binds both upstream



activators and dow

Background

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 Re

matters needing attention

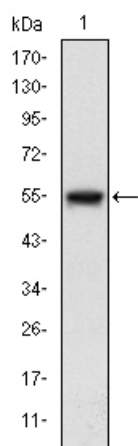
Avoid repeated freezing and thawing!

Usage suggestions

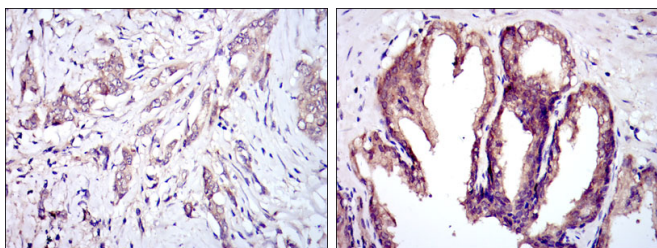
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



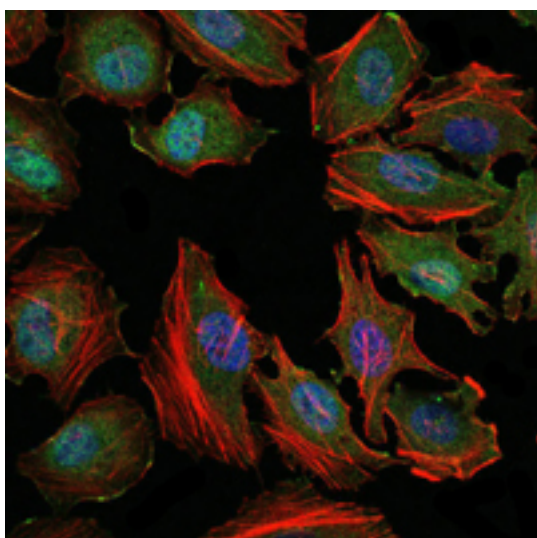
Products Images



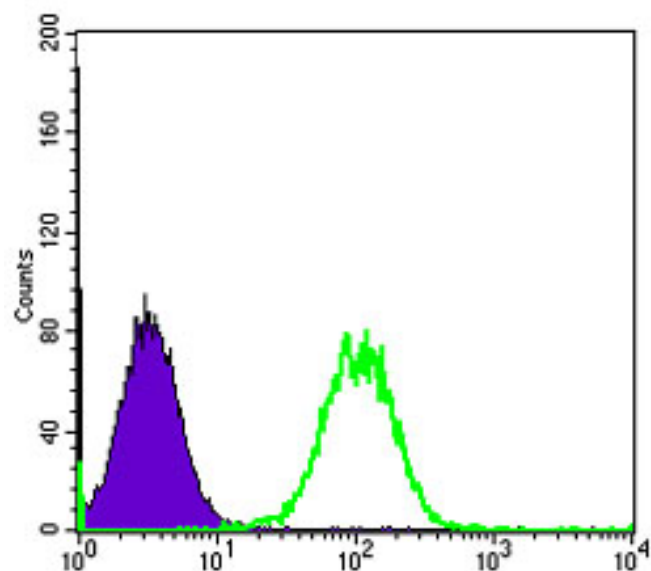
Western Blot analysis using ASK 1 Monoclonal Antibody against recombinant protein.



Immunohistochemistry analysis of paraffin-embedded breast cancer tissues (left) and prostate tissues (right) with DAB staining using ASK 1 Monoclonal Antibody.



Immunofluorescence analysis of HeLa cells using ASK 1 Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of Hela cells using ASK 1 Monoclonal Antibody (green) and negative control (purple).

