



# ASK 1 (phospho Ser83) Polyclonal Antibody

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>                  | YP-Ab-14298                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Reactivity</b>                  | Human;Rat;Mouse;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Applications</b>                | WB;IHC;IF;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Gene Name</b>                   | MAP3K5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Immunogen</b>                   | The antiserum was produced against synthesized peptide derived from human ASK1 around the phosphorylation site of Ser83. AA range:49-98                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Specificity</b>                 | Phospho-ASK 1 (S83) Polyclonal Antibody detects endogenous levels of ASK 1 protein only when phosphorylated at S83.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>                      | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Purification</b>                | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Dilution</b>                    | WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Purity</b>                      | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Synonyms</b>                    | ASK-1;MAP3K5;Apoptosis signal-regulating kinase 1;ASK 1;EC:2.7.11.25;ASK1; Mitogen-activated protein kinase kinase kinase 5;MAPKKK5;MEKK5;MAPK/ ERK kinase kinase 5;MEK kinase 5;MEKK 5                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Observed Band</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Calculated Molecular Weight</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Cell Pathway</b>                | Cytoplasm . Endoplasmic reticulum. Interaction with 14-3-3 proteins alters the distribution of MAP3K5/ASK1 and restricts it to the perinuclear endoplasmic reticulum region.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Tissue Specificity</b>          | Abundantly expressed in heart and pancreas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Function</b>                    | 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

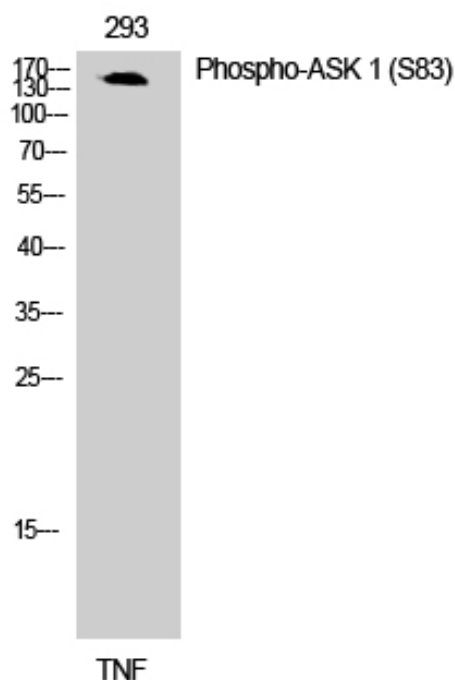
Avoid repeated freezing and thawing!

### Usage suggestions

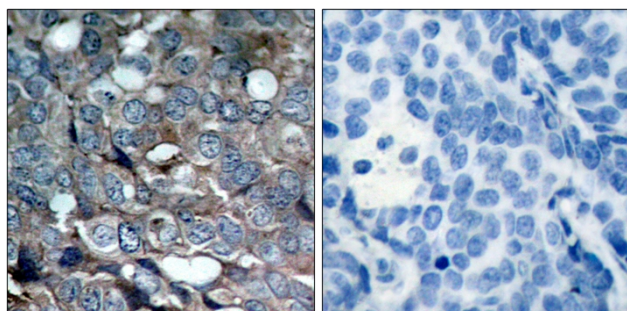
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



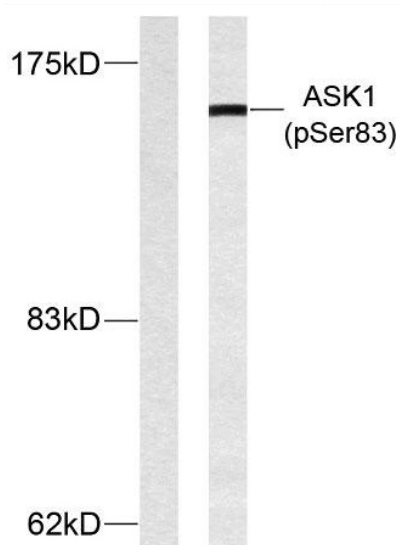
## Products Images



Western Blot analysis of 293 cells using Phospho-ASK 1 (S83) Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using ASK1 (Phospho-Ser83) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from MDA-MB-435 cells treated with TNF-alpha, using ASK1 (Phospho-Ser83) Antibody. The lane on the left is blocked with the phospho peptide.