

**ASK1/MAPKKK5 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10101****Specification**

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**ASK1/MAPKKK5 Antibody - Product Information**

Application	WB, IF
Primary Accession	<a href="#">Q99683</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	154537

**ASK1/MAPKKK5 Antibody - Additional Information****Gene ID** 4217

Application & Usage	<b>Western blot analysis (1-4 µg/ml).</b> <b>However, the optimal conditions should be determined individually. The immunoaffinity purified antibody detects the 155 kDa ASK1 protein in human SW1353 cell lysate by immunoblotting.</b>
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**Other Names**  
MAP3K5, MEKK5, ASK-1 , MAPKKK5**Target/Specificity**  
ASK1/MAPKKK5**Antibody Form**  
Liquid**Appearance**  
Colorless liquid**Formulation**  
100 µg (0.2 mg/ml) immunoaffinity purified, rabbit anti-ASK1 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA, 0.02% sodium azide.**Handling**  
The antibody solution should be gently mixed before use.**Reconstitution & Storage**  
-20 °C**Background Descriptions****Precautions**

ASK1/MAPKKK5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **ASK1/MAPKKK5 Antibody - Protein Information**

**Name** MAP3K5

**Synonyms** ASK1, MAPKKK5, MEKK5

### **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 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

### **Tissue Location**

Abundantly expressed in heart and pancreas.

## **ASK1/MAPKKK5 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **ASK1/MAPKKK5 Antibody - Images**

## **ASK1/MAPKKK5 Antibody - Background**

ASK1 (Apoptosis Signal-regulating Kinase 1) activates two different subgroups of MAPKK, MKK4 and MKK6, which in turn activate c-Jun N-terminal Kinase (JNK) and p38 MAP Kinase. ASK1 is activated by TNFR and Fas through the interaction with members of the TRAF Family and the Fas-associated protein Daxx. Overexpression of ASK1 induces apoptosis. However, a catalytically inactive form of ASK1 has been shown to inhibit TNF- $\alpha$  induced apoptosis.