abcam

ab278573

APC Anti-ASK1 (phospho S83) antibody [Ask1S83-G4]

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	APC
Excitation/Emission	Ex: 650nm, Em: 660nm
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 0.2% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human MAP3K5 pS83. The exact immunogen used to generate this antibody is proprietary information. Database link Q99683
Clone number	Ask1S83-G4
Purification technique	Affinity purification Protein A/G
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	5 µL for 10^6 Cells
Notes	-

Target data

See full target information MAP3K5 pS83

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).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Notes

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The ASK1 protein also known as apoptosis signal-regulating kinase 1 is an important component in cellular stress response pathways. This 150 kDa protein is a member of the mitogen-activated protein kinase kinase kinase (MAP3K) family. ASK1 is expressed in several tissues including the heart brain liver and pancreas. Mechanically ASK1 gets activated in response to a variety of stress stimuli such as oxidative stress and endoplasmic reticulum stress which significantly impact the regulation of programmed cell death.
Biological function summary	In response to stressors ASK1 activates the c-Jun N-terminal kinase (JNK) and p38 MAPK signaling pathways which play roles in apoptosis and inflammation. ASK1 tends to form a complex with TRAF2 and TRAF6 key adapters in downstream signaling. This kinase acts as an important link bridging environmental stress signals to cellular responses. Through its function ASK1 influences cell fate decisions in response to various stress conditions.
Pathways	ASK1 is a central player in the MAPK signaling cascade. Within this cascade ASK1 regulates JNK and p38 MAPK pathways which are significant in stress adaptation and cellular responses. ASK1 interacts with proteins like MKK4 and MKK7 in the JNK pathway amplifying the stress signals. Through these interactions ASK1 ensures the propagation of signals important for adaptive responses or programmed cell death.
Associated diseases and disorders	Dysfunction in ASK1 activity associates with neurodegenerative diseases and cardiovascular disorders. In Alzheimer's disease for instance ASK1 contributes to neuronal apoptosis via its engagement with JNK signaling. In cardiovascular disorders ASK1 exacerbates heart failure by promoting cell death and inflammation. ASK1's interaction with proteins such as TNF receptor-associated factor 2 (TRAF2) highlights its role in these pathological conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

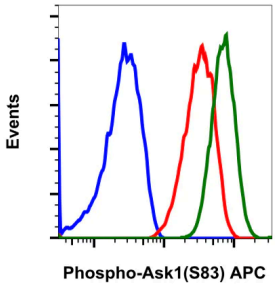
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - APC Anti-ASK1 (phospho S83) antibody [Ask1S83-G4] (ab278573)

ASK1 (phospho S83) Flow Cytometry staining using rabbit Anti-ASK1 (phospho S83) antibody

Flow cytometric analysis of HT1080 human fibrosarcoma cells, treated with imatinib and unstained as negative control (blue), or treated with imatinib and stained (red) or treated with pervanadate and stained (green) using ab278573.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.