abcam

# ab278645

# PE Anti-ASK1 (phospho T838) antibody [Ask1T838-8D12]

Recombinant

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Conjugation** | PE |
| **Excitation/Emission** | Ex: 480;565nm, Em: 578nm |
| **Storage buffer** | Preservative: 0.09% Sodium azide Constituents: PBS, 0.2% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Synthetic Peptide within Human MAP3K5 pT838. The exact immunogen used to generate this antibody is proprietary information. Database link Q99683 |
| **Clone number** | Ask1T838-8D12 |
| **Purification technique** | Affinity purification Protein A/G |
| **Light chain type** | kappa |

## Reactivity data

## Flow Cyt

### Tested

| | |
|---|---|
| **Species** | Mouse |

| | |
|---|---|
| **Dilution info** | 5 µL for $10^6$ Cells |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information MAP3K5 pT838

**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.

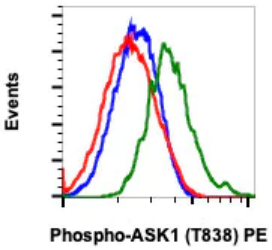
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## 1 product image




### Flow Cytometry - PE Anti-ASK1 (phospho T838) antibody [Ask1T838-8D12] (ab278645)

ASK1 (phospho T838) Flow Cytometry staining using rabbit Anti-ASK1 (phospho T838) antibody

Flow cytometric analysis of NIH3T3 cells treated with staurosporine and unstained as negative control (blue) or treated with staurosporine (red) or with PDGF (green) and stained using ab278645.

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