abcam

ab278619

# Anti-MKK4 (phospho S257) antibody [SEK1MKK4S257-C5]

Recombinant | 20ul selling size

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.1% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Synthetic Peptide within Human MAP2K4 phospho S257. The exact immunogen used to generate this antibody is proprietary information. Database link P45985 |
| **Clone number** | SEK1MKK4S257-C5 |
| **Purification technique** | Affinity purification Protein A/G |
| **Light chain type** | kappa |
| **Concentration** | 0.5 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## Flow Cyt

**Tested**

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

| | |
|---|---|
| **Dilution info** | 0.001-1 µg/mL |
| **Notes** | - |

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 0.001-1 µg/mL |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | African green monkey |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | African green monkey |
| **Dilution info** | 0.05 µg/mL |
| **Notes** | - |

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 0.05 µg/mL |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

# Target data

See full target information MAP2K4 phospho S257

| | |
|---|---|
| **Function** | Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated |

protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K7/MKK7, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The phosphorylation of the Thr residue by MAP2K7/MKK7 seems to be the prerequisite for JNK activation at least in response to pro-inflammatory cytokines, while other stimuli activate both MAP2K4/MKK4 and MAP2K7/MKK7 which synergistically phosphorylate JNKs. MAP2K4 is required for maintaining peripheral lymphoid homeostasis. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Whereas MAP2K7/MKK7 exclusively activates JNKs, MAP2K4/MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14.

## Storage

| | |
|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle |

## 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.

## 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.

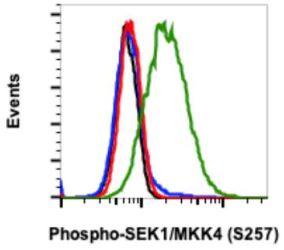
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We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

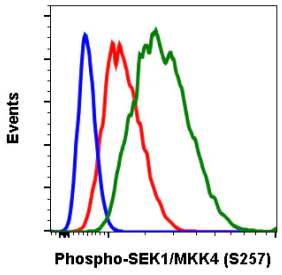
## 5 product images




### Flow Cytometry - Anti-MKK4 (phospho S257) antibody [SEK1MKK4S257-C5] (ab278619)

MKK4 (phospho S257) Flow Cytometry staining using rabbit Anti-MKK4 (phospho S257) antibody

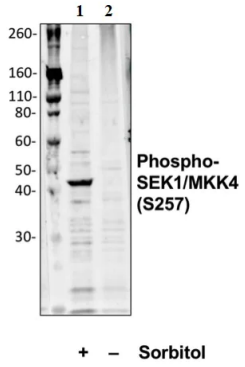
Flow cytometric analysis of HEK-293T cells treated with lambda phosphatase (red) or treated with UV+TPA (green) using ab278619, at 0.1 ug/mL, or concentration-matched Rabbit (G9) mAb IgG Isotype Control for cells treated with phosphatase (black) or treated with UV+TPA (blue).




### Flow Cytometry - Anti-MKK4 (phospho S257) antibody [SEK1MKK4S257-C5] (ab278619)

MKK4 (phospho S257) Flow Cytometry staining using rabbit Anti-MKK4 (phospho S257) antibody

Flow cytometric analysis of 3T3 cells secondary antibody only negative control (blue) or treated with imatinib (red) or with pervanadate (green) using ab278619 at 0.1 µg/mL.

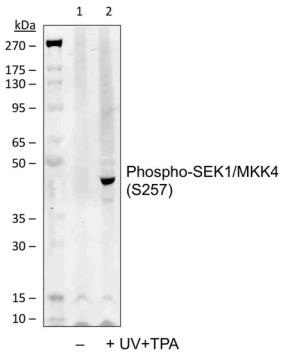



## Western blot - Anti-MKK4 (phospho S257) antibody [SEK1MKK4S257-C5] (ab278619)

All lanes:
Western blot - Anti-MKK4 (phospho S257) antibody [SEK1MKK4S257-C5] (ab278619) at 0.05 µg/mL

Lane 1:
THP1 cell extract treated with sorbitol

Lane 2:
THP1 cell extract untreated

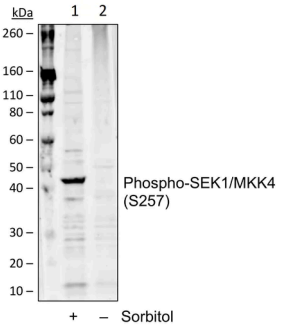



## Western blot - Anti-MKK4 (phospho S257) antibody [SEK1MKK4S257-C5] (ab278619)

All lanes:
Western blot - Anti-MKK4 (phospho S257) antibody [SEK1MKK4S257-C5] (ab278619) at 0.05 µg/mL

Lane 1:
COS7 cell extract untreated

Lane 2:
COS7 cell extract treated with UV plus TPA




## Western blot - Anti-MKK4 (phospho S257) antibody [SEK1MKK4S257-C5] (ab278619)

All lanes:
Western blot - Anti-MKK4 (phospho S257) antibody [SEK1MKK4S257-C5] (ab278619) at 0.05 µg/mL

Lane 1:
THP1 cell extract treated with sorbitol

Lane 2:
THP1 cell extract untreated

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