abcam

ab278716

Anti-MEK 3 (phospho S189) + MKK6 (phospho S207) antibody [MKK3S189MKK6S207-D3]

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 MAP2K3 phospho S189. The exact immunogen used to generate this antibody is proprietary information. Database link P46734
Clone number	MKK3S189MKK6S207-D3
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 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	-
Notes	-

Expected

Species	Mouse, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information MAP2K3 phospho S189

Function	Dual specificity kinase. Is activated by cytokines and environmental stress in vivo. Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in the MAP kinase p38. Part of a signaling cascade that begins with the activation of the adrenergic receptor ADRA1B and leads to the activation of 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.

Supplementary info

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

Activity summary	MEK3 also known as MAP2K3 and MKK6 known as MAP2K6 are protein kinases involved in the MAP kinase signaling pathway. MEK3 has a molecular weight of approximately 38 kDa and MEK6 has a similar molecular weight. Researchers have identified these kinases in various human tissues with significant expression in muscles heart and brain tissues. Both MEK3 and MKK6 activate specific downstream MAP kinases via phosphorylation facilitating their role in cellular stress responses.
Biological function summary	MEK3 and MKK6 mediate responses to stress and inflammatory cytokines marking their importance in signal transduction. They activate p38 MAP kinase through phosphorylation a part of a complex necessary for cellular responses. This activity influences gene expression related to cellular growth differentiation and apoptosis. MEK3 and MKK6 show functional overlap and redundancy ensuring robust cellular responses to external stimuli.
Pathways	MEK3 and MKK6 are integral in the MAP kinase signaling pathway and the p38 MAPK pathway. These pathways play critical roles in cell differentiation apoptosis and response to extracellular stress signals. MEK3 and MEK6 phosphorylate and

activate the p38 MAPK protein which regulates stress-induced gene expression. This relationship emphasizes the interplay between kinases and how MEK3 and MEK6 fit within broader signaling networks.

Associated diseases and disorders

MEK3 and MKK6 are associated with inflammatory diseases and cancer. Dysregulation of the p38 MAPK pathway involving MEK3 and MKK6 contributes to these conditions due to improper stress response signaling. Notably MEK6's interaction with the p38 protein highlights its potential role in exacerbating inflammation and tumorigenesis. Understanding the mechanisms involving MEK3 and MKK6 assists in the development of targeted therapies for these diseases.

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

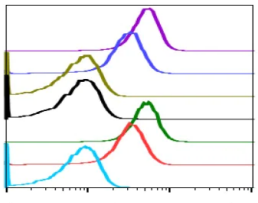
We do not recommend this combination. It is not covered by our product promise.

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.

4 product images

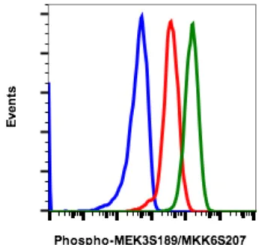


Flow Cytometry - Anti-MEK 3 (phospho S189) + MKK6 (phospho S207) antibody [MKK3S189MKK6S207-D3] (ab278716)

MEK 3 (phospho S189) + MKK6 (phospho S207) Flow Cytometry staining using rabbit Anti-MEK 3 (phospho S189) + MKK6 (phospho S207) antibody

Peptide blocking flow cytometric analysis of HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cells secondary antibody only negative control (light blue) or treated with K252a (red) or UV/TPA-treated (green) or K252a and blocked with phospho-

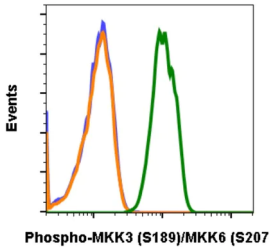
peptide (black) or UV/TPA and blocked with phospho peptide (gold) or K252a and blocked with non-phospho peptide (dark blue) or UV/TPA and blocked with non-phospho peptide (purple) using ab278716 at 0.1 µg/ml.



Flow Cytometry - Anti-MEK 3 (phospho S189) + MKK6 (phospho S207) antibody [MKK3S189MKK6S207-D3] (ab278716)

MEK 3 (phospho S189) + MKK6 (phospho S207) Flow Cytometry staining using rabbit Anti-MEK 3 (phospho S189) + MKK6 (phospho S207) antibody

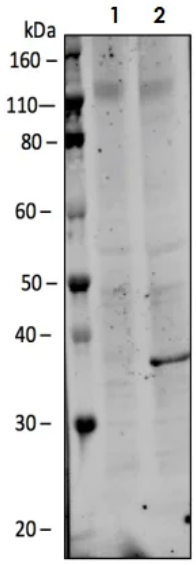
Flow cytometric analysis of HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cells secondary antibody only negative control (blue) or treated with K252a (red) or treated with UV+TPA (green) using ab278716 at 0.5 µg/ml.



Flow Cytometry - Anti-MEK 3 (phospho S189) + MKK6 (phospho S207) antibody [MKK3S189MKK6S207-D3] (ab278716)

MEK 3 (phospho S189) + MKK6 (phospho S207) Flow Cytometry staining using rabbit Anti-MEK 3 (phospho S189) + MKK6 (phospho S207) antibody

Flow cytometric analysis of NIH/3T3 (mouse embryo fibroblast cell line) cells treated with secondary antibody only (blue) or 0.1 µg/ml of isotype control (orange) or ab278716.



Western blot - Anti-MEK 3 (phospho S189) + MKK6 (phospho S207) antibody [MKK3S189MKK6S207-D3] (ab278716)

All lanes:
Western blot - Anti-MEK 3 (phospho S189) + MKK6 (phospho S207) antibody [MKK3S189MKK6S207-D3] (ab278716) at 0.05 µg/mL

Lane 1:
Untreated COS-7 (African green monkey kidney fibroblast-like cell line) cell extracts

Lane 2:
UV-treated COS-7 cell extracts

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