abcam

Product datasheet

Anti-TAK1 (phospho S439) antibody [EPR2863] - BSA and Azide free ab239974

Recombinant RabMAb®

3 Images

Overview

Product name	Anti-TAK1 (phospho S439) antibody [EPR2863] - BSA and Azide free
Description	Rabbit monoclonal [EPR2863] to TAK1 (phospho S439) - BSA and Azide free
Host species	Rabbit
Specificity	This antibody only detects TAK1 phosphorylated at Serine 439 in Human or TAK1 phosphorylated at Serine 412 in Mouse.
Tested applications	**Suitable for:** Dot blot, IP, WB **Unsuitable for:** Flow Cyt,ICC/IF or IHC-P
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IP: HeLa treated with 100nM Calyculin A and 20ng/ml human IL-1 beta for 10min whole cell lysate.
General notes	ab239974 is the carrier-free version of **ab109404**.

Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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 production

For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2863
Isotype	IgG

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab239974 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

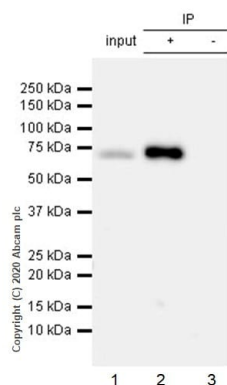| Application	Abreviews	Notes
Dot blot		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 75 kDa (predicted molecular weight: 67 kDa).

Application notes   Is unsuitable for Flow Cyt,ICC/IF or IHC-P.

Target

Function	Component of a protein kinase signal transduction cascade. Mediator of TRAF6 and TGF-beta signal transduction. Activates IKBKB and MAPK8 in response to TRAF6 signaling. Stimulates NF-kappa-B activation and the p38 MAPK pathway. In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK, but not that of NF-kappa-B.
Sequence similarities	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily. Contains 1 protein kinase domain.
Post-translational modifications	Association with TAB1/MAP3K7IP1 promotes autophosphorylation and subsequent activation. Association with TAB2/MAP3K7IP2, itself associated with free unanchored Lys-63 polyubiquitin chain, promotes autophosphorylation and subsequent activation of MAP3K7. Dephosphorylation at Thr-187 by PP2A and PPP6C leads to inactivation. Ubiquitinated, leading to proteasomal degradation (By similarity). Requires 'Lys-63'-linked

polyubiquitination for autophosphorylation and subsequent activation. 'Lys-63'-linked ubiquitination does not lead to proteasomal degradation. Deubiquitinated by CYLD, a protease that selectively cleaves 'Lys-63'-linked ubiquitin chains. Deubiquitinated by Y.enterocolitica YopP.

Images

Immunoprecipitation - Anti-TAK1 (phospho S439) antibody [EPR2863] - BSA and Azide free (ab239974)

Purified **ab109404** at 1/50 dilution (2µg) immunoprecipitating TAK1 in HeLa treated with 100nM Calyculin A and 20ng/ml human IL-1 beta for 10min whole cell lysate.

Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) treated with 100nM Calyculin A and 20ng/ml human IL-1 beta for 10min whole cell lysate 10µg

Lane 2 (+): **ab109404** + HeLa treated with 100nM Calyculin A and 20ng/ml human IL-1 beta for 10min whole cell lysate.

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab239974 in HeLa treated with 100nM Calyculin A and 20ng/ml human IL-1 beta for 10min whole cell lysate.
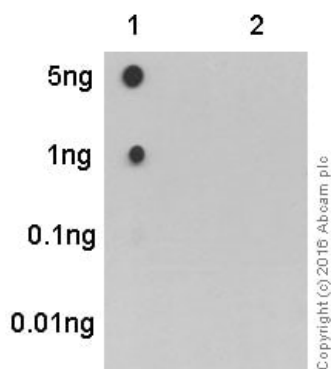
VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

Observed band size: 75 kDa

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109404**).

Dot Blot - Anti-TAK1 (phospho S439) antibody [EPR2863] - BSA and Azide free (ab239974)

Dot Blot analysis of Lane 1: TAK1 (phospho S439) phospho peptide and Lane 2: TAK1 non-phospho peptide labeling TAK1 (phospho S439) with **ab109404** at 1/1000 dilution (0.009 µg/ml). 5% NFDM/TBST was used as the diluting and blocking buffer. **ab97051** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated was used as the secondary antibody at 1/100,000 dilution. Exposure time: 3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109404**).

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-TAK1 (phospho S439) antibody [EPR2863] -

BSA and Azide free (ab239974)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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