abcam

Product datasheet

Anti-JNK1 antibody [EPR17557] - BSA and Azide free ab251271

KO VALIDATED Recombinant RabMAb

10 Images

Overview

Product name	Anti-JNK1 antibody [EPR17557] - BSA and Azide free
Description	Rabbit monoclonal [EPR17557] to JNK1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Mouse, Rat, Chicken, Hamster, Dog, Human, African green monkey, Xenopus tropicalis **Predicted to work with:** Monkey
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
General notes	ab251271 is the carrier-free version of **ab199380**. 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	EPR17557
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab251271 in the following tested applications.

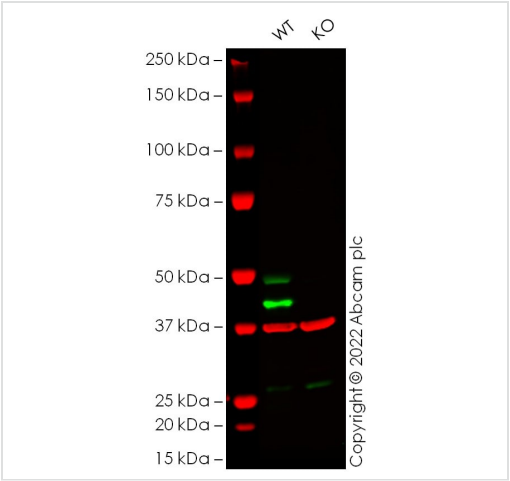
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 54, 46 kDa (predicted molecular weight: 44 kDa).

Target

Function	Responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating a number of transcription factors, primarily components of AP-1 such as JUN, JDP2 and ATF2 and thus regulates AP-1 transcriptional activity. In T-cells, JNK1 and JNK2 are required for polarized differentiation of T-helper cells into Th1 cells (By similarity). Phosphorylates heat shock factor protein 4 (HSF4). JNK1 isoforms display different binding patterns: beta-1 preferentially binds to c-Jun, whereas alpha-1, alpha-2, and beta-2 have a similar low level of binding to both c-Jun or ATF2. However, there is no correlation between binding and phosphorylation, which is achieved at about the same efficiency by all isoforms.
Sequence similarities	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily. Contains 1 protein kinase domain.
Domain	The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.
Post-translational modifications	Dually phosphorylated on Thr-183 and Tyr-185, which activates the enzyme.

Images



Western blot - Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

All lanes : Anti-JNK1 antibody [EPR17557] (**ab199380**) at 1/2500 dilution

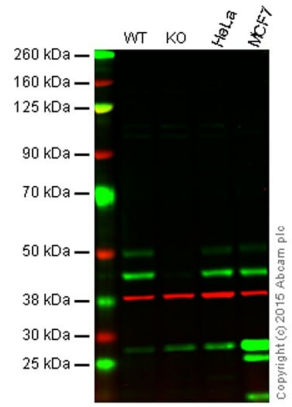
Lane 1 : Wild-type U-2 OS cell lysate
Lane 2 : MAPK8 knockout U-2 OS cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 44 kDa
Observed band size: 42-48 kDa

False colour image of Western blot: Anti-JNK1 antibody [EPR17557] staining at 1/2500 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, **ab199380** was shown to bind specifically to JNK1. A band was observed at 42/48 kDa in wild-type U-2 OS cell lysates with no signal observed at this size in mapk8 knockout cell line **ab277181** (knockout cell lysate **ab277223**). To generate this image, wild-type and mapk8 knockout U-2 OS cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.

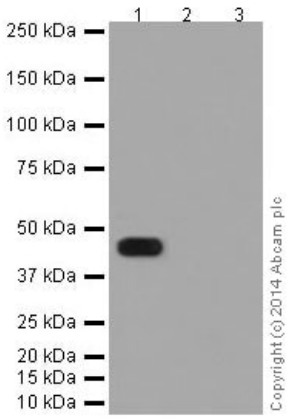


Western blot - Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

This data was developed using **ab199380**, the same antibody clone in a different buffer formulation.

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: JNK1 knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: MCF7 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - **ab199380** observed at 46 and 54 kDa. Red - loading control, **ab8226**, observed at 42 kDa.

ab199380 was shown to recognize JNK1 when JNK1 knockout samples were used, along with additional cross-reactive bands. Wild-type and JNK1 knockout samples were subjected to SDS-PAGE. **ab199380** and **ab8226** (loading control to beta Actin) were diluted to 1/2500 and 1/1000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.



Western blot - Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

All lanes : Anti-JNK1 antibody [EPR17557] (**ab199380**) at 1/5000 dilution

Lane 1 : Full length Human JNK1 recombinant protein
Lane 2 : Full length Human JNK2 recombinant protein
Lane 3 : Full length Human JNK3 recombinant protein

Lysates/proteins at 0.01 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

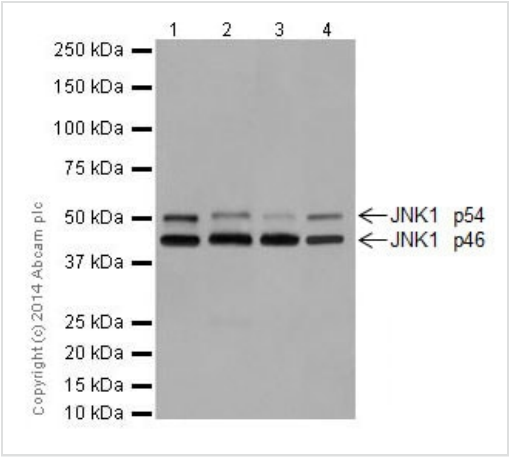
Predicted band size: 44 kDa
Observed band size: 48 kDa

This data was developed using **ab199380**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

Recombinant full length JNK1 protein contains aa1-427 with His-Tag®. Recombinant full length JNK2 protein contains aa1-424 with

GST-tag and JNK3 protein contains aa1-464 with GST-tag.



Western blot - Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

All lanes : Anti-JNK1 antibody [EPR17557] (**ab199380**) at 1/10000 dilution

Lane 1 : HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate
Lane 2 : U937 (Human histiocytic lymphoma cells) whole cell lysate
Lane 3 : MCF7 (Human breast adenocarcinoma cell line) whole cell lysate
Lane 4 : Jurkat (Human T cell leukemia cells from peripheral blood) whole cell lysate

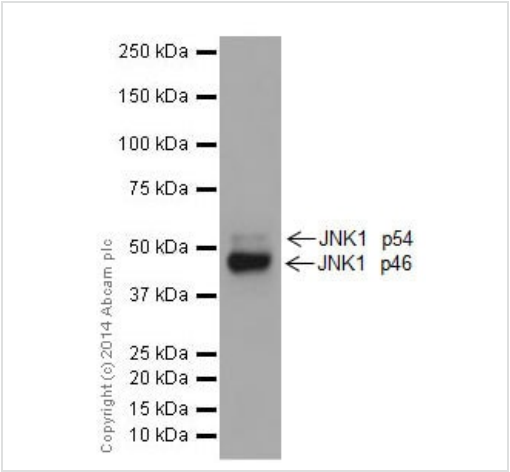
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 44 kDa
Observed band size: 46,54 kDa

This data was developed using **ab199380**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

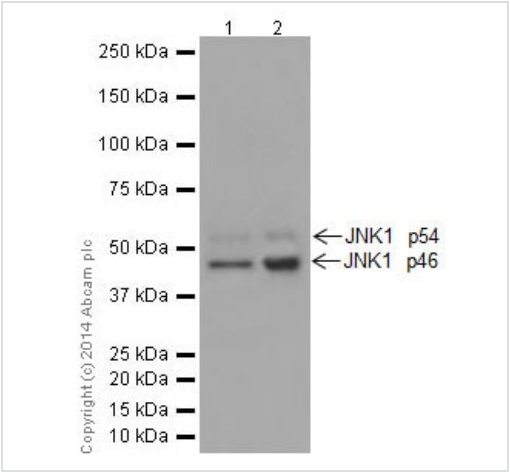
Anti-JNK1 antibody [EPR17557] (**ab199380**) at 1/2500 dilution + Human fetal brain lysate at 10 µg

Secondary
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 44 kDa
Observed band size: 46,54 kDa

This data was developed using **ab199380**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

All lanes : Anti-JNK1 antibody [EPR17557] (**ab199380**) at 1/2500 dilution

Lane 1 : Human fetal heart lysate
Lane 2 : Human fetal kidney lysate

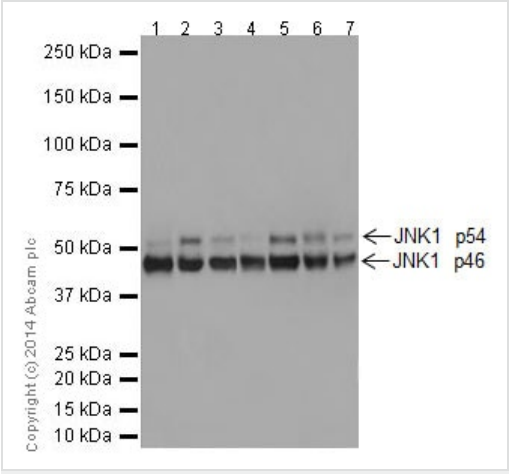
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 44 kDa
Observed band size: 46,54 kDa

This data was developed using **ab199380**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

All lanes : Anti-JNK1 antibody [EPR17557] (**ab199380**) at 1/5000 dilution

Lane 1 : Rat brain lysate
Lane 2 : Rat heart lysate
Lane 3 : Rat spleen lysate
Lane 4 : C6 (Rat glial tumor cells) whole cell lysate
Lane 5 : RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate
Lane 6 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate
Lane 7 : NIH/3T3 (Mouse embyro fibroblast cells) whole cell lysate

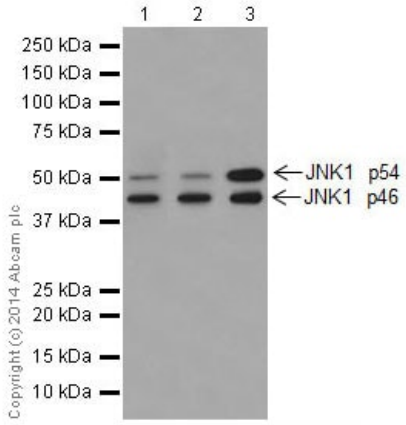
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 44 kDa
Observed band size: 46,54 kDa

This data was developed using **ab199380**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

All lanes : Anti-JNK1 antibody [EPR17557] (**ab199380**) at 1/2500 dilution

Lane 1 : MDCK (Canine kidney cell line) whole cell lysates
Lane 2 : COS-1 (African green monkey kidney fibroblast-like cell line) whole cell lysates
Lane 3 : UMNSAH/DF-1 (Transformed chicken embryonic fibroblast cells) whole cell lysates

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 44 kDa
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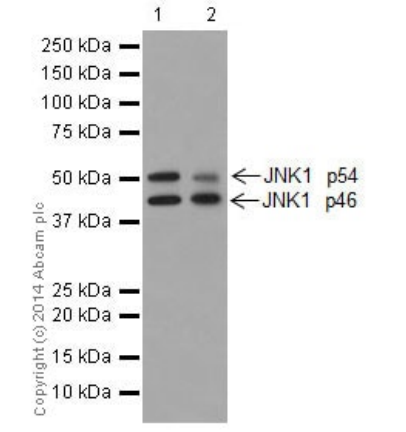

Western blot - Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

All lanes : Anti-JNK1 antibody [EPR17557] (**ab199380**) at 1/2500 dilution

Lane 1 : Xenopus (X. tropicalis) muscle lysates
Lane 2 : BHK (Hamster kidney fibroblast cells) whole cell lysates

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 44 kDa
Observed band size: 46,54 kDa

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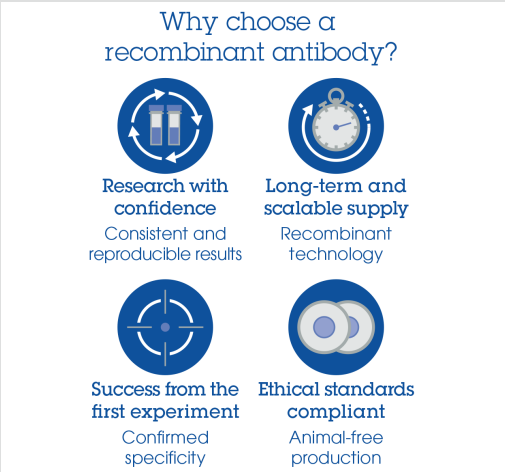

Anti-JNK1 antibody [EPR17557] - BSA and Azide free (ab251271)

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