


## Product datasheet

### Anti-JNK1 antibody [EPR17557] ab199380

**KO VALIDATED** Recombinant RabMAB

[48 References](#) [10 Images](#)

#### Overview

<b>Product name</b>	Anti-JNK1 antibody [EPR17557]
<b>Description</b>	Rabbit monoclonal [EPR17557] to JNK1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Chicken, Hamster, Dog, Human, African green monkey, Xenopus tropicalis <b>Predicted to work with:</b> Monkey 
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Full length human JNK1 recombinant protein; HeLa, U937, MCF7, Jurkat, C6, RAW 264.7, PC-12, NIH/3T3, MDCK, COS-1, UMNSAH/DF-1 and BHK whole cell lysates; Human fetal brain, fetal heart and fetal kidney lysates; Rat brain, heart and spleen lysates; Xenopus (X. tropicalis) muscle lysates.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAB <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB<sup>®</sup> patents</a> .

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR17557
<b>Isotype</b>	IgG

## Applications

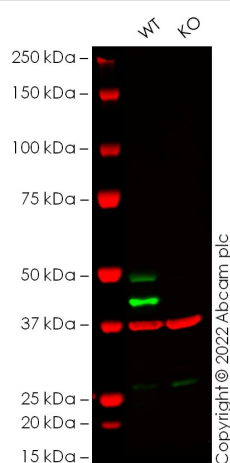
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab199380 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>		1/2500. Detects a band of approximately 54, 46 kDa (predicted molecular weight: 44 kDa).

## Target

<b>Function</b>	<p>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).</p> <p>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.</p>
<b>Sequence similarities</b>	<p>Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.</p> <p>Contains 1 protein kinase domain.</p>
<b>Domain</b>	The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.
<b>Post-translational modifications</b>	Dually phosphorylated on Thr-183 and Tyr-185, which activates the enzyme.

## Images



Western blot - Anti-JNK1 antibody [EPR17557]  
(ab199380)

**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

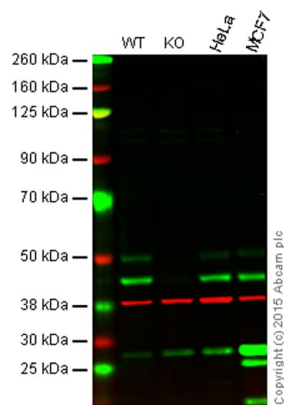
Lysates/proteins at 20 µg per lane.

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<sup>®</sup> 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]  
(ab199380)

**Lane 1:** Wild-type HAP1 cell lysate (20 µg)

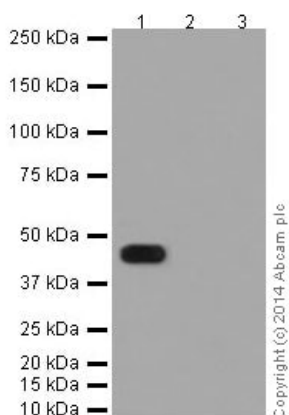
**Lane 2:** JNK1 knockout HAP1 cell lysate (20 µg)

**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]  
(ab199380)

**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

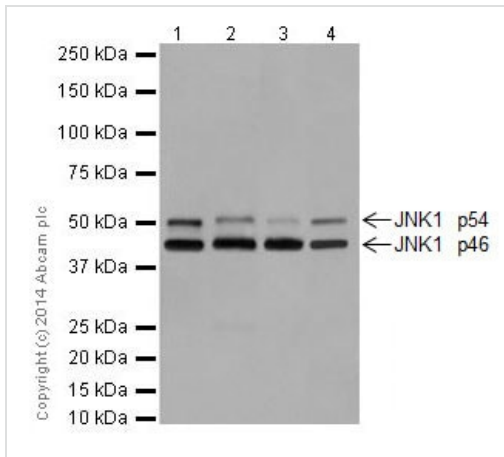
**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 44 kDa

**Observed band size:** 48 kDa

Blocking/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] (ab199380)

**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.

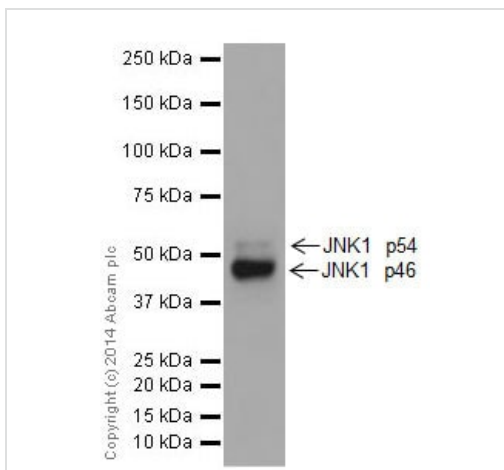
### Secondary

**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

Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot - Anti-JNK1 antibody [EPR17557] (ab199380)

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

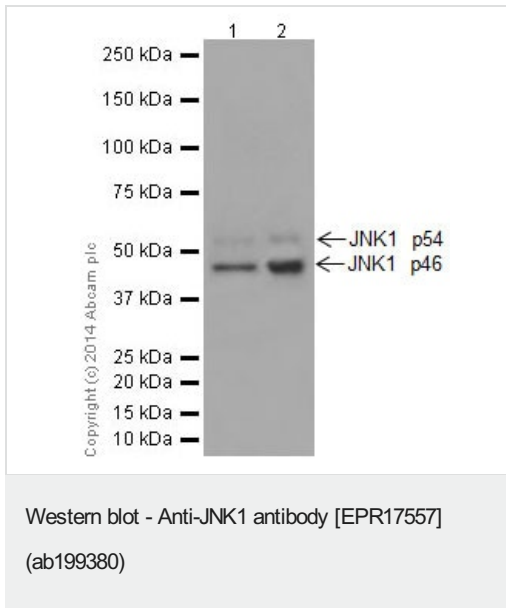
### Secondary

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

Blocking/Dilution buffer: 5% NFDm/TBST.



**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.

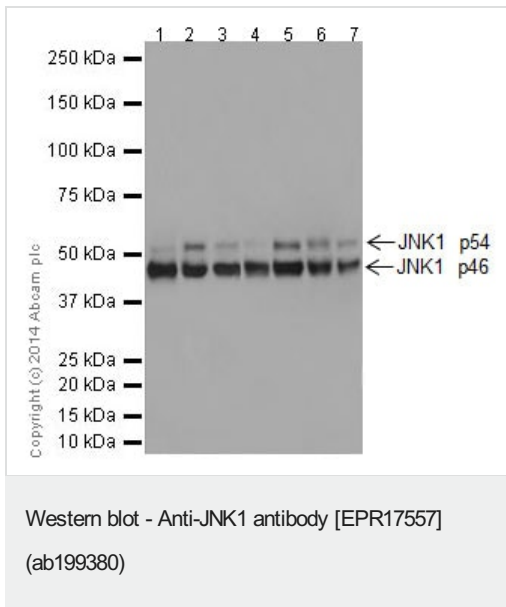
**Secondary**

**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

Blocking/Dilution buffer: 5% NFDm/TBST.



**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 embryo fibroblast cells) whole cell lysate

Lysates/proteins at 10 µg per lane.

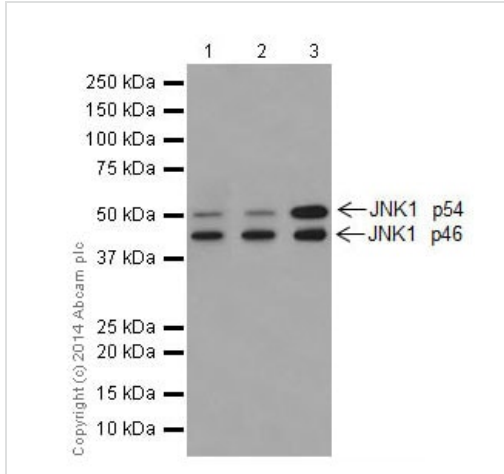
**Secondary**

**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

Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot - Anti-JNK1 antibody [EPR17557] (ab199380)

**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.

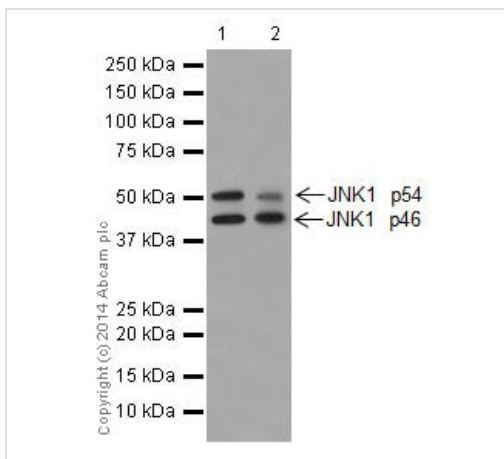
### Secondary

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

**Predicted band size:** 44 kDa

**Observed band size:** 46,54 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot - Anti-JNK1 antibody [EPR17557] (ab199380)

**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

Blocking/Dilution buffer: 5% NFDm/TBST.

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-JNK1 antibody [EPR17557] (ab199380)

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

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