

Product datasheet

Anti-JNK1 antibody [EPR140(2)] ab110724

KO VALIDATED Recombinant RabMAB

★★★★★ [1 Abreviews](#) [34 References](#) [6 Images](#)

Overview

Product name	Anti-JNK1 antibody [EPR140(2)]
Description	Rabbit monoclonal [EPR140(2)] to JNK1
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HEK-293, K562, C6, RAW 264.7 and MCF7 cell lysates.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR140(2)
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab110724 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	★★★★★ (1)	1/1000 - 1/10000. Predicted molecular weight: 48 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.

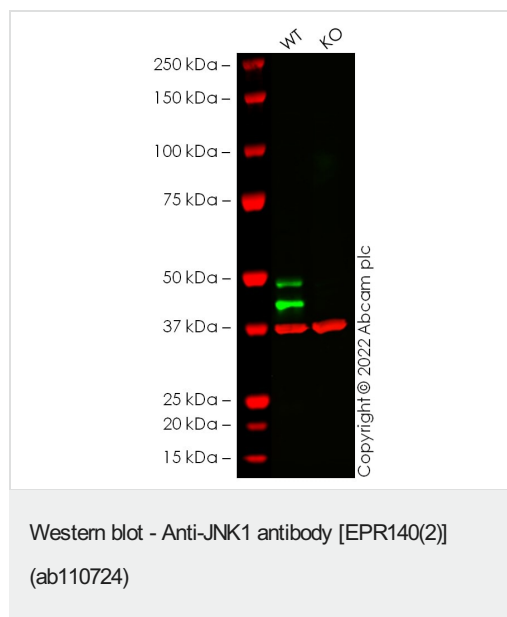
Domain

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



All lanes : Anti-JNK1 antibody [EPR140(2)] (ab110724) at 1/1000 dilution

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

Lane 2 : MAPK8 knockout U-2 OS cell lysate

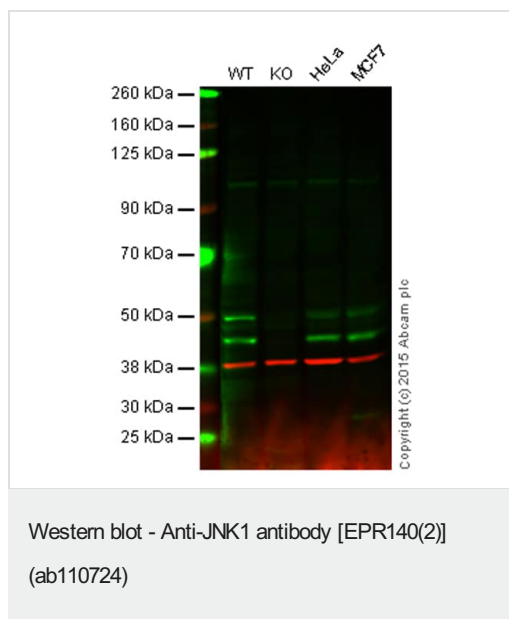
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 48 kDa

Observed band size: 42-48 kDa

False colour image of Western blot: Anti-JNK1 antibody [EPR140(2)] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab110724 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.



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

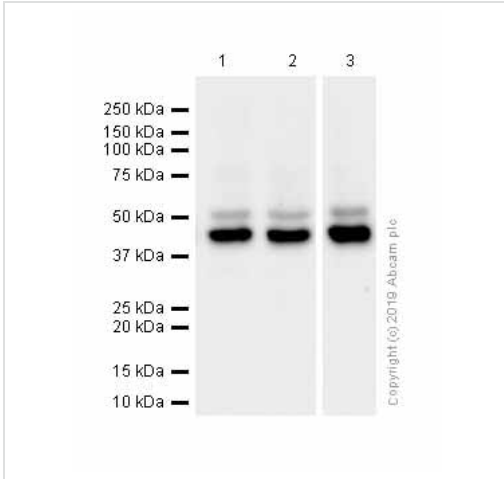
Lane 2: JNK1 knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: MCF7 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab110724 observed at 46 and 54 kDa. Red - loading control, **ab8226**, observed at 42 kDa.

ab110724 (unpurified) was shown to specifically react with JNK1 when JNK1 knockout samples were used. Wild-type and ProteinX knockout samples were subjected to SDS-PAGE. ab110724 and **ab8226** (loading control to beta actin) were both diluted 1/1000 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 [EPR140(2)] (ab110724)

All lanes : Anti-JNK1 antibody [EPR140(2)] (ab110724) at 1/2000 dilution

Lane 1 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate

Lane 2 : C6 (Rat glial tumor cell line) whole cell lysate

Lane 3 : RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate

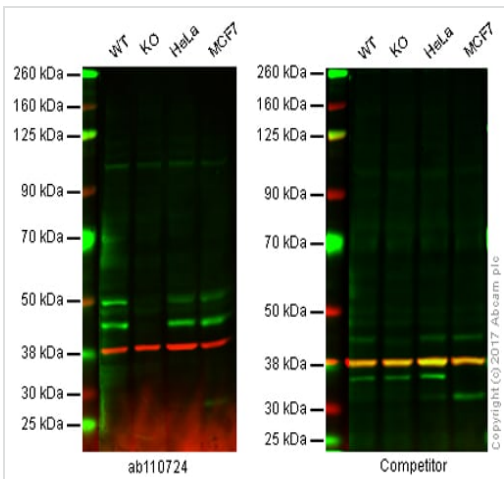
Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 48 kDa

Observed band size: 46,54 kDa



Western blot - Anti-JNK1 antibody [EPR140(2)] (ab110724)

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

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

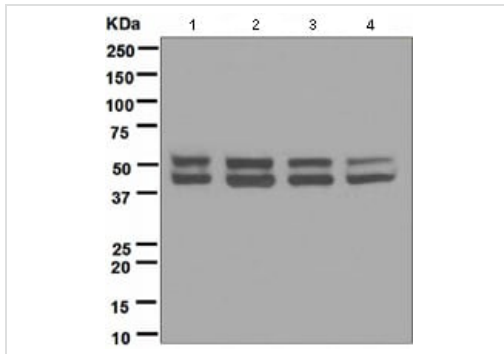
Lane 3: HeLa cell lysate (20 µg)

Lane 4: MCF7 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green).

Green - target observed at 46 and 54 kDa. Red - loading control, [ab8226](#), observed at 42 kDa.

This western blot image is a comparison between ab110724 and a competitor's top cited mouse monoclonal antibody.



Western blot - Anti-JNK1 antibody [EPR140(2)]
(ab110724)

All lanes : Anti-JNK1 antibody [EPR140(2)] (ab110724) at 1/1000 dilution (unpurified)

Lane 1 : HeLa cell lysate

Lane 2 : 293T cell lysate





Lane 3 : K562 cell lysate

Lane 4 : MCF7 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 48 kDa

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-JNK1 antibody [EPR140(2)] (ab110724)

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

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