abcam

Product datasheet

Anti-JNK2 antibody [EP1595Y] ab76125

KO VALIDATED Recombinant RabMAb

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Overview

Product name	Anti-JNK2 antibody [EP1595Y]
Description	Rabbit monoclonal [EP1595Y] to JNK2
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP, IHC-P, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human JNK2 aa 350-450 (C terminal). The exact sequence is proprietary.
Positive control	HeLa cell lysate; human breast carcinoma tissue.
General notes	A trial size is available to purchase for this antibody. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents **We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.** This product is a recombinant rabbit monoclonal antibody.

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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.5% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EP1595Y
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab76125** in the following tested applications.

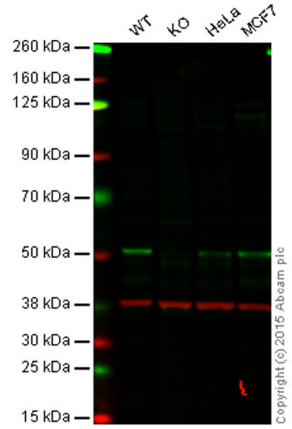
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 48 kDa.
IP		Use a concentration of 5 µg/ml.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Flow Cyt		1/40. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

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 c-Jun 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. JNK2 isoforms display different binding patterns: alpha-1 and alpha-2 preferentially bind to c-Jun, whereas beta-1 and beta-2 bind to ATF2. However, there is no correlation between binding and phosphorylation, which is achieved at about the same efficiency by all isoforms. JUNB is not a substrate for JNK2 alpha-2, and JUND binds only weakly to it.
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. Autophosphorylated in vitro.

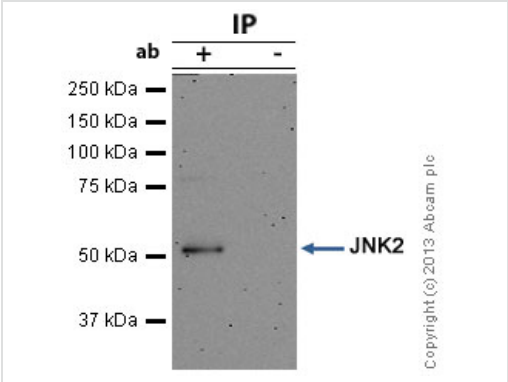
Images



Western blot - Anti-JNK2 antibody [EP1595Y] (ab76125)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: JNK2 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 - ab76125 observed at 54 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab76125 was shown to specifically react with JNK2 when JNK2 knockout samples were used. Wild-type and JNK2 knockout samples were subjected to SDS-PAGE. ab76125 and ab8245 (loading control to GAPDH) were diluted 1/2500 and 1/2000 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 1/10000 dilution for 1 h at room temperature before imaging.



Immunoprecipitation - Anti-JNK2 antibody [EP1595Y] (ab76125)

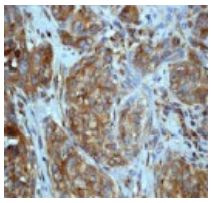
JNK2 was immunoprecipitated using 0.5mg Hela whole cell extract, 5µg of Rabbit monoclonal to JNK2 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, Hela whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab76125.

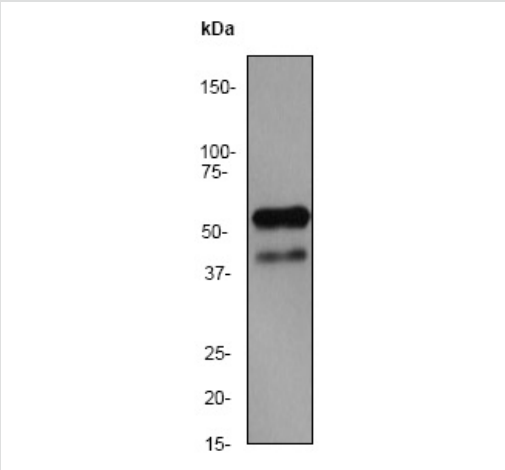
Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (ab99697).

Band: 48kDa; JNK2



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-JNK2 antibody [EP1595Y] (ab76125)

ab76125 at 1/100 dilution staining JNK2 in human breast carcinoma by Immunohistochemistry, Paraffin-embedded tissue.



Western blot - Anti-JNK2 antibody [EP1595Y] (ab76125)

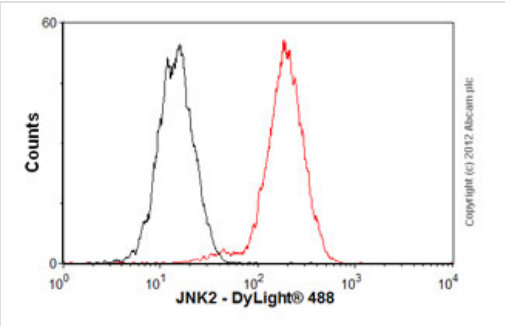
Anti-JNK2 antibody [EP1595Y] (ab76125) at 1/50000 dilution + HeLa cell lysate at 10 µg

Secondary

goat anti-rabbit-HRP at 1/1000 dilution

Developed using the ECL technique.

Predicted band size: 48 kDa
Observed band size: 54 kDa
Additional bands at: 46 kDa (possible isoform)



Flow Cytometry - Anti-JNK2 antibody [EP1595Y] (ab76125)

Overlay histogram showing HeLa cells stained with ab76125 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab76125, 1/100 dilution) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

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