abcam

Product datasheet

HRP Anti-JNK1 + JNK2 + JNK3 antibody [EPR18841-95] ab237119

Recombinant RabMAb

5 Images

Overview

Product name	HRP Anti-JNK1 + JNK2 + JNK3 antibody [EPR18841-95]
Description	HRP Rabbit monoclonal [EPR18841-95] to JNK1+JNK2+JNK3
Host species	Rabbit
Conjugation	HRP
Tested applications	**Suitable for:** WB, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment within Human JNK1+JNK2+JNK3 aa 150-400. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support team to discuss your requirements. SwissProt ID: P45984 = JNK2 and P53779 = JNK3. Database link: **P45983** **Run BLAST with** **Run BLAST with**
Positive control	WB: Jurkat, HeLa, Neuro-2a, PC-12, NIH3T3, K562 and MCF7 cell lysate. IP: Neuro-2a, PC-12 whole cell lysates.
General notes	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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.

Storage buffer	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18841-95
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab237119 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.
IP		1/30.

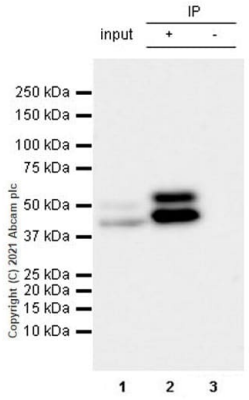
Target

Function Serine/threonine-protein kinase involved in various processes such as cell proliferation, differentiation, migration, transformation and programmed cell death. Extracellular stimuli such as proinflammatory cytokines or physical stress stimulate the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. In this cascade, two dual specificity kinases MAP2K4/MKK4 and MAP2K7/MKK7 phosphorylate and activate MAPK8/JNK1. In turn, MAPK8/JNK1 phosphorylates a number of transcription factors, primarily components of AP-1 such as JUN, JDP2 and ATF2 and thus regulates AP-1 transcriptional activity. Phosphorylates the replication licensing factor CDT1, inhibiting the interaction between CDT1 and the histone H4 acetylase HBO1 to replication origins. Loss of this interaction abrogates the acetylation required for replication initiation. Promotes stressed cell apoptosis by phosphorylating key regulatory factors including p53/TP53 and Yes-associates protein YAP1. In T-cells, MAPK8 and MAPK9 are required for polarized differentiation of T-helper cells into Th1 cells. Contributes to the survival of erythroid cells by phosphorylating the antagonist of cell death BAD upon EPO stimulation. Mediates starvation-induced BCL2 phosphorylation, BCL2 dissociation from BECN1, and thus activation of autophagy. Phosphorylates STMN2 and hence regulates microtubule dynamics, controlling neurite elongation in cortical neurons. In the developing brain, through its cytoplasmic activity on STMN2, negatively regulates the rate of exit from multipolar stage and of radial migration from the ventricular zone. Phosphorylates several other substrates including heat shock factor protein 4 (HSF4), the deacetylase SIRT1, ELK1, or the E3 ligase ITCH.
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 by MAP2K7 and MAP2K4, which activates the enzyme. Phosphorylated by TAOK2.
Cellular localization	Cytoplasm. Nucleus.

Images



Immunoprecipitation - HRP Anti-JNK1+JNK2+JNK3 antibody [EPR18841-95] (ab237119)

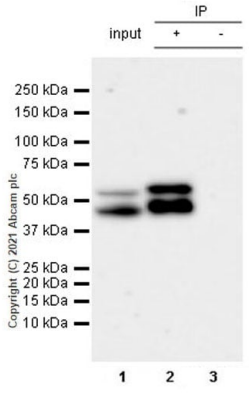
Immunoprecipitation of JNK1 JNK2 JNK3 using capture ab 1:30 dilution (2µg in 0.35mg lysates); ab237119 at 1/1000 dilution for western blot and VeriBlot for IP secondary antibody(HRP) (**ab131366**) at 1/5000 dilution.

Lane 1: Input- Neuro-2a (mouse neuroblastoma neuroblast) whole cell lysate 10 µg

Lane 2: Positive-Neuro-2a whole cell lysate

Lane 3: Negative-Rabbit monoclonal IgG (**ab172730**) instead of ab237119 in Neuro-2a whole cell lysate

Blocking and diluting buffer: 5% NFDM/TBST



Immunoprecipitation - HRP Anti-JNK1+JNK2+JNK3 antibody [EPR18841-95] (ab237119)

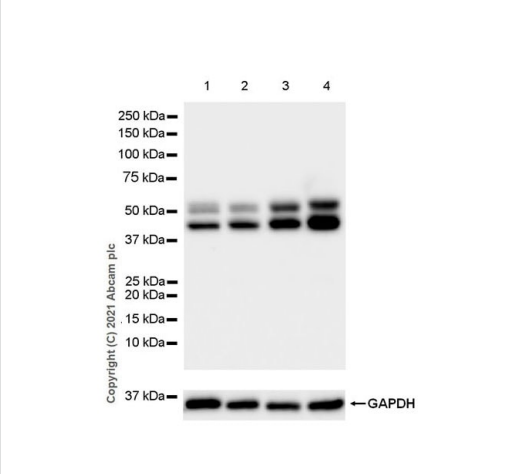
Immunoprecipitation of JNK1 JNK2 JNK3 using capture ab 1/30 dilution (2µg in 0.35mg lysates); ab237119 at 1/1000 dilution for western blot and VeriBlot for IP secondary antibody(HRP) (**ab131366**) at 1/5000 dilution.

Lane 1: Input- PC-12 (rat adrenal gland pheochromocytoma) whole cell lysate 10 µg

Lane 2: Positive- PC-12 whole cell lysate

Lane 3: Negative- Rabbit monoclonal IgG (**ab172730**) instead of ab237119 in PC-12 whole cell lysate

Blocking and diluting buffer: 5% NFDM/TBST



Western blot - HRP Anti-JNK1+JNK2+JNK3 antibody [EPR18841-95] (ab237119)

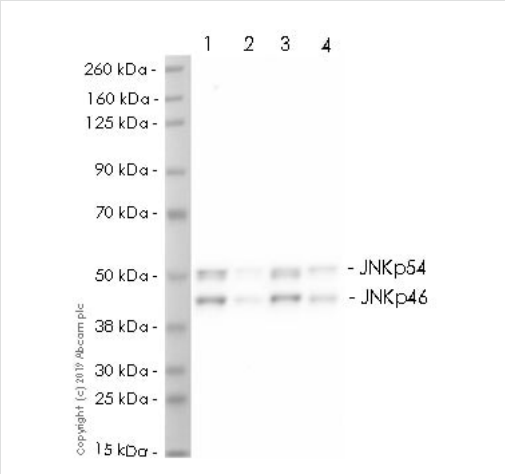
All lanes : HRP Anti-JNK1 + JNK2 + JNK3 antibody [EPR18841-95] (ab237119) at 1/1000 dilution

Lane 1 : HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : NIH/3T3 (mouse embryonic fibroblast) whole cell lysate
Lane 3 : Neuro-2a (mouse neuroblastoma neuroblast) whole cell lysate
Lane 4 : PC-12 (rat adrenal gland pheochromocytoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Exposure time: 15 seconds



Western blot - HRP Anti-JNK1+JNK2+JNK3 antibody [EPR18841-95] (ab237119)

This blot was produced using a 4-12% Bis-Tris gel under the MOPS buffer system. The gel was run at 200V for 50 mins. before being transferred onto a nitrocellulose membrane at 30V for 70 min. The membrane was then blocked for an hour using 3% non-fat milk before being incubated with ab237119 (1/1000) overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.

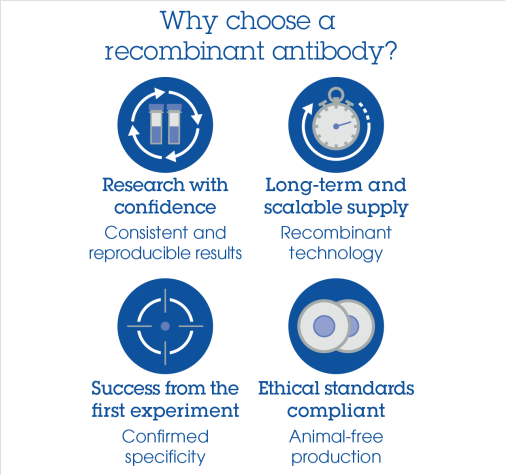
Samples:

Lane 1. Jurkat (20 µg)

Lane 2. HeLa (20 µg)

Lane 3. K562 (20 µg)

Lane 4. MCF7 (20 µg)



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