# abcam

## Product datasheet

## Anti-JNK1 + JNK2 + JNK3 (phospho T183 + Y185) antibody ab59196

2 References 1 Image

Overview

Product name Anti-JNK1 + JNK2 + JNK3 (phospho T183 + Y185) antibody

**Description** Rabbit polyclonal to JNK1 + JNK2 + JNK3 (phospho T183 + Y185)

Host species Rabbit

Specificity ab59196 detects endogenous levels of JNK1/2/3 only when phosphorylated at

threonine183/tyrosine 185.

Tested applications Suitable for: WB

Species reactivity Reacts with: Human

Predicted to work with: Rat

Immunogen Synthetic peptide corresponding to Human JNK1 + JNK2 + JNK3 aa 150-250 (phospho T183 +

Y185). Synthetic phosphopeptide (Human) from around the phosphorylation site of threonine

183/tyrosine 185 (MMTPPYPVV) Swiss-Prot #: P45983/P45984/P53779

**General notes**The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies

and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**Properties** 

Form Liquid

**Storage instructions** Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

Without Mg+2 and Ca+2

Purity Immunogen affinity purified

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Purification notes Affinity purified from rabbit antiserum by affinity chromatography using epitope specific

phosphopeptide. The antibody against non phosphopeptide was removed by chromatography

using non phosphopeptide corresponding to the phosphorylation site.

**Clonality** Polyclonal

**Isotype** IgG

## **Applications**

## The Abpromise guarantee

Our Abpromise guarantee covers the use of ab59196 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		1/500 - 1/1000. Detects a band of approximately 40, 60 kDa (predicted molecular weight: 48 kDa).

#### **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** 

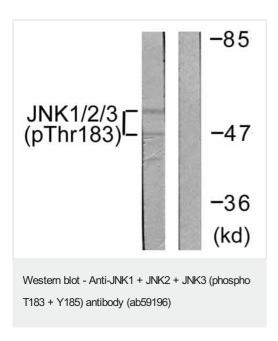
The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.

Post-translational

Dually phosphorylated on Thr-183 and Tyr-185 by MAP2K7 and MAP2K4, which activates the  $\,$ 

enzyme. Phosphorylated by TAOK2.

### **Images**



**All lanes :** Anti-JNK1 + JNK2 + JNK3 (phospho T183 + Y185) antibody (ab59196) at 1/500 dilution

Lane 1: 293 cell extract treated with UV (5 mins)

Lane 2: 293 cell extract treated with UV (5 mins) with immunising

phosphopeptide

**Predicted band size:** 48 kDa **Observed band size:** 40,60 kDa

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

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