

## Product datasheet

# Anti-c-Jun antibody [EP693Y] ab40766

**KO VALIDATED** Recombinant RabMAB

★★★★★ [1 Abreviews](#) [28 References](#) [11 Images](#)

### Overview

<b>Product name</b>	Anti-c-Jun antibody [EP693Y]
<b>Description</b>	Rabbit monoclonal [EP693Y] to c-Jun
<b>Host species</b>	Rabbit
<b>Specificity</b>	PBS only lot tested.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), ICC/IF, WB, IHC-P, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: HEK-293, MOJ/3T3 and PC-12 cell lysates; IHC-P: Rat liver, mouse cerebrum and human cervix carcinoma tissues. ICC/IF: NIH/3T3 and HeLa cells. ICC/IF KO: HEK293 cells (HEK293-JUN KO cells used as a negative cell line). Flow Cyt (intra): HEK-293 cells IP: NIH/3T3 cell lysate
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <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> <p>For more information <a href="#">see here</a>.</p> <p>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>.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

### 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. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP693Y
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab40766 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
Flow Cyt (Intra)		1/20.
ICC/IF		1/50. Signal can be observed in cells fixed with either methanol or paraformaldehyde.
WB		1/1000 - 1/5000. Detects a band of approximately 39 kDa (predicted molecular weight: 39 kDa).
IHC-P	★★★★★ (1)	1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP		1/20.

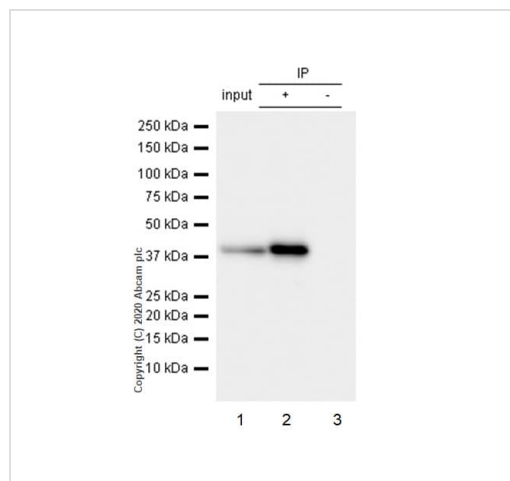
## Target

**Function** Transcription factor that recognizes and binds to the enhancer heptamer motif 5'-TGA[CG]TCA-3'. Promotes activity of NR5A1 when phosphorylated by HIPK3 leading to increased steroidogenic gene expression upon cAMP signaling pathway stimulation. Involved in activated KRAS-mediated transcriptional activation of USP28 in colorectal cancer (CRC) cells (PubMed:24623306). Binds to the USP28 promoter in colorectal cancer (CRC) cells (PubMed:24623306).

**Sequence similarities** Belongs to the bZIP family. Jun subfamily.  
Contains 1 bZIP (basic-leucine zipper) domain.

**Post-translational modifications** Ubiquitinated by the SCF(FBXW7), leading to its degradation. Ubiquitination takes place following phosphorylation, that promotes interaction with FBXW7.  
Phosphorylated by CaMK4 and PRKDC; phosphorylation enhances the transcriptional activity.  
Phosphorylated by HIPK3. Phosphorylated by DYRK2 at Ser-243; this primes the protein for subsequent phosphorylation by GSK3B at Thr-239. Phosphorylated at Thr-239, Ser-243 and Ser-249 by GSK3B; phosphorylation reduces its ability to bind DNA. Phosphorylated by PAK2 at Thr-2, Thr-8, Thr-89, Thr-93 and Thr-286 thereby promoting JUN-mediated cell proliferation and transformation. Phosphorylated by PLK3 following hypoxia or UV irradiation, leading to increase DNA-binding activity.  
Acetylated at Lys-271 by EP300.

**Cellular localization** Nucleus.



Immunoprecipitation - Anti-c-Jun antibody [EP693Y] (ab40766)

Purified ab40766 at 1/20 dilution (1µg) immunoprecipitating c-Jun in NIH/3T3 whole cell lysate.

Lane 1 (input): NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate 10µg

Lane 2 (+): ab40766 + NIH/3T3 whole cell lysate.

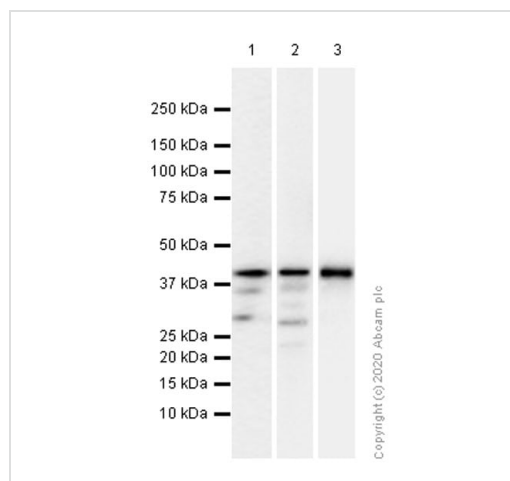
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab40766 in NIH/3T3 whole cell lysate.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm/TBST.

Observed band size: 39 kDa



Western blot - Anti-c-Jun antibody [EP693Y] (ab40766)

**All lanes** : Anti-c-Jun antibody [EP693Y] (ab40766) at 1/1000 dilution (Purified)

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

**Lane 2** : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate

**Lane 3** : PC-12 (Rat adrenal gland pheochromocytoma ) whole cell lysate

Lysates/proteins at 15 µg per lane.

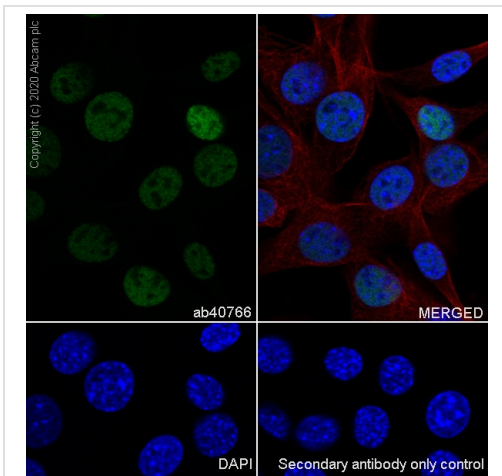
**Secondary**

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

**Predicted band size:** 39 kDa

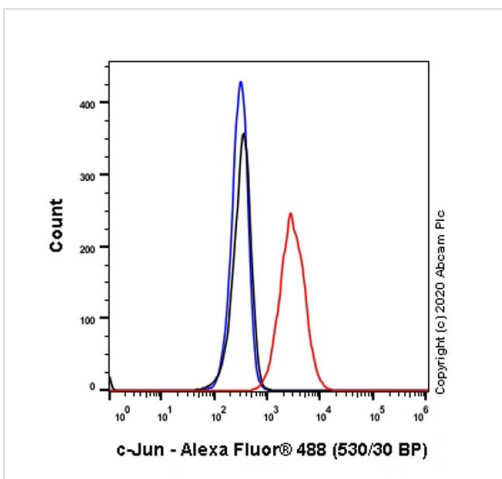
**Observed band size:** 39 kDa

Blocking Buffer and concentration: 5% NFDm/TBST



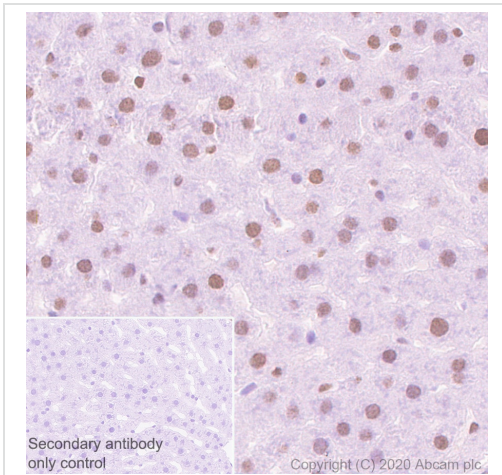
Immunocytochemistry/ Immunofluorescence - Anti-c-Jun antibody [EP693Y] (ab40766)

Immunocytochemistry analysis of NIH/3T3 (Mouse embryonic fibroblast) cells labeling c-Jun with Purified ab40766 at 1:50 dilution (4.06 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



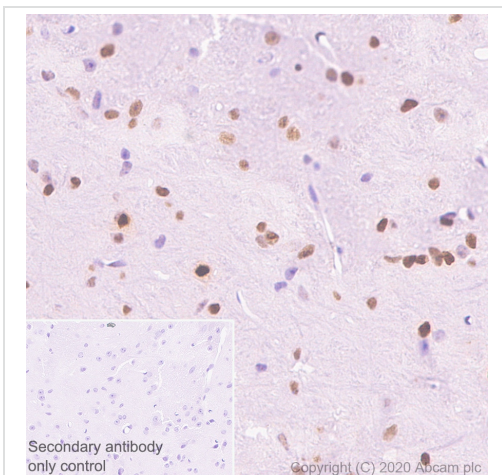
Flow Cytometry (Intracellular) - Anti-c-Jun antibody [EP693Y] (ab40766)

Intracellular Flow Cytometry analysis of HEK-293 (Human embryonic kidney epithelial cell) cells labeling c-Jun with Purified ab40766 at 1/20 dilution (10µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



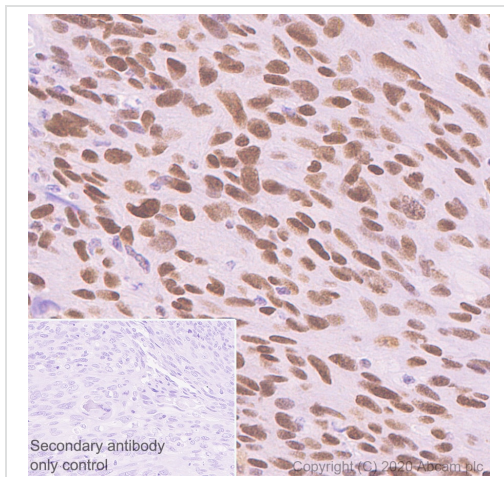
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue sections labeling c-Jun with Purified ab40766 at 1:500 dilution (0.41 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Jun antibody [EP693Y] (ab40766)



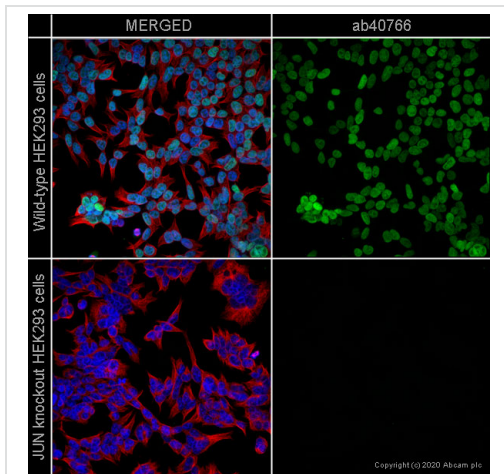
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse cerebrum tissue sections labeling c-Jun with Purified ab40766 at 1:500 dilution (0.41 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Jun antibody [EP693Y] (ab40766)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-c-Jun antibody [EP693Y] (ab40766)

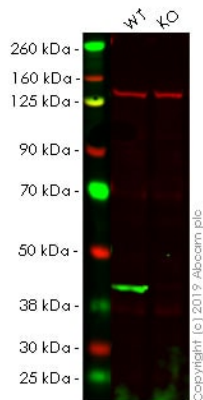
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cervix carcinoma tissue sections labeling c-Jun with Purified ab40766 at 1:500 dilution (0.41 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunocytochemistry/ Immunofluorescence - Anti-c-Jun antibody [EP693Y] (ab40766)

ab40766 staining c-Jun in wild-type HEK293 cells (top panel) and c-Jun knockout HEK293 cells (bottom panel). The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab40766 at 1/250 dilution and **ab7291** (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in pseudo color red). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a high-content analysis system (Perkin Elmer, Operetta CLS™).



Western blot - Anti-c-Jun antibody [EP693Y]  
(ab40766)

**All lanes** : Anti-c-Jun antibody [EP693Y] (ab40766) at 1/1000 dilution

**Lane 1** : Wild-type HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

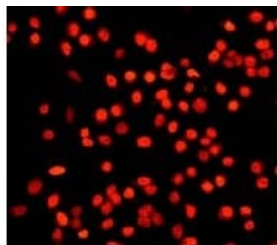
**Lane 2** : Jun knockout HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

Lysates/proteins at 40 µg per lane.

**Predicted band size:** 39 kDa

**Lanes 1 - 2:** Merged signal (red and green). Green - ab40766 observed at 35 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab40766 was shown to specifically react with Jun in wild-type HEK-293 cells as signal was lost in Jun knockout cells. Wild-type and Jun knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab40766 and **ab18058** (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Immunofluorescent staining of HeLa cells  
ab40766 at 1/100 dilution

Immunocytochemistry/ Immunofluorescence - Anti-c-Jun antibody [EP693Y] (ab40766)

### 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-c-Jun antibody [EP693Y] (ab40766)

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

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