SANTA CRUZ BIOTECHNOLOGY, INC.

c-Jun (B-1): sc-166540

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Genes belonging to the Jun and Fos oncogene families encode nuclear proteins that are found to be associated with a number of transcriptional complexes. The c-Jun protein is a major component of the transcription factor AP-1, originally shown to mediate phorbol ester tumor promoter (TPA)-induced expression of responsive genes through the TPA-response element (TRE). The Jun proteins form homo- and heterodimers which bind the TRE, but the Fos proteins are active only as heterodimers with any of the Jun proteins. Fos/Jun heterodimers have a much higher affinity for the TRE than Jun homodimers. Ha-Ras augments c-Jun activity and stimulates phosphorylation of its activation domain. An inhibitor of Fos/Jun function, termed IP-1, associates with Fos and Jun and is deactivated upon phosphorylation induced by the cAMP-dependent protein kinase A (PKA).

REFERENCES

1. Sambucetti, L.C., et al. 1986. The Fos protein complex is associated with DNA in isolated nuclei and binds to DNA cellulose. Science 234: 1417-1419.
2. Bohmann, D., et al. 1987. Human proto-oncogene c-Jun encodes a DNA binding protein with structural and functional properties of transcription factor AP-1. Science 238: 1386-1392.

CHROMOSOMAL LOCATION

Genetic locus: JUN (human) mapping to 1p32.1; Jun (mouse) mapping to 4 C5.

SOURCE

c-Jun (B-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 75-105 near the N-terminus of c-Jun of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-166540 X, 200 µg/0.1 ml.

c-Jun (B-1) is available conjugated to agarose (sc-166540 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166540 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166540 PE), fluorescein (sc-166540 FITC), Alexa Fluor® 488 (sc-166540 AF488), Alexa Fluor® 546 (sc-166540 AF546), Alexa Fluor® 594 (sc-166540 AF594) or Alexa Fluor® 647 (sc-166540 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166540 AF680) or Alexa Fluor® 790 (sc-166540 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166540 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

c-Jun (B-1) is recommended for detection of c-Jun of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

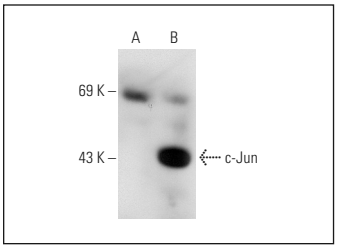
c-Jun (B-1) is also recommended for detection of c-Jun in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for c-Jun siRNA (h): sc-29223, c-Jun siRNA (m): sc-29224, c-Jun siRNA (r): sc-156028, c-Jun shRNA Plasmid (h): sc-29223-SH, c-Jun shRNA Plasmid (m): sc-29224-SH, c-Jun shRNA Plasmid (r): sc-156028-SH, c-Jun shRNA (h) Lentiviral Particles: sc-29223-V, c-Jun shRNA (m) Lentiviral Particles: sc-29224-V, c-Jun shRNA (r) Lentiviral Particles: sc-156028-V.

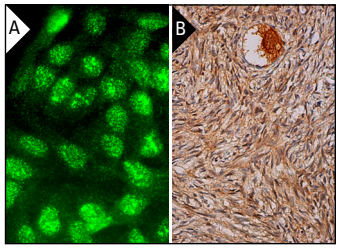
c-Jun (B-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of c-Jun: 39 kDa.

DATA



c-Jun (B-1): sc-166540. Western blot analysis of c-Jun expression in non-transfected: sc-110760 (**A**) and human c-Jun transfected: sc-110759 (**B**) 293 whole cell lysates.



c-Jun (B-1): sc-166540. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing nuclear and cytoplasmic staining of oocytes and ovarian stroma cells (**B**).

SELECT PRODUCT CITATIONS

1. Ming, J., et al. 2012. Interleukin-7 up-regulates cyclin D1 via activator protein-1 to promote proliferation of cell in lung cancer. Cancer Immunol. Immunother. 61: 79-88.
2. Amigo-Jiménez, I., et al. 2016. Gene expression profile induced by arsenic trioxide in chronic lymphocytic leukemia cells reveals a central role for heme oxygenase-1 in apoptosis and regulation of matrix metalloproteinase-9. Oncotarget 7: 83359-83377.
3. Jia, J., et al. 2018. MiR-125b inhibits LPS-induced inflammatory injury via targeting MIP-1α in chondrogenic cell ATDC5. Cell. Physiol. Biochem. 45: 2305-2316.

RESEARCH USE

For research use only, not for use in diagnostic procedures.