

c-Jun (B-2): sc-376488



The Power to Question

BACKGROUND

Genes belonging to the Jun and Fos oncogene families encode nuclear proteins that are 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, while 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 inactivated 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.

SOURCE

c-Jun (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 237-273 within a highly conserved DNA binding domain of c-Jun of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₃ 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-376488 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-376488 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

c-Jun (B-2) is recommended for detection of c-Jun, Jun B and Jun D p39 of mouse, rat, human and chicken 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-2) is also recommended for detection of c-Jun, Jun B and Jun D p39 in additional species, including canine, bovine, porcine and avian.

c-Jun (B-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

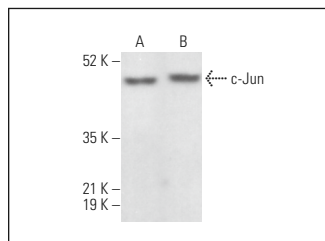
Molecular Weight of c-Jun: 39 kDa.

Positive Controls: NIH/3T3 + PMA nuclear extract: sc-2125, TK-1 whole cell lysate: sc-364798 or U-251-MG whole cell lysate: sc-364176.

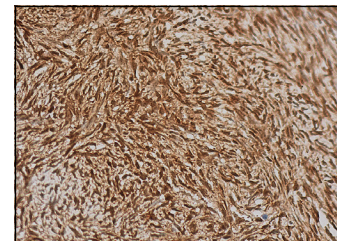
STORAGE

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

DATA



c-Jun (B-2): sc-376488. Western blot analysis of c-Jun expression in TK-1 (A) and U-251-MG (B) whole cell lysates.



c-Jun (B-2): sc-376488. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing nuclear and cytoplasmic staining of ovarian stroma cells.

SELECT PRODUCT CITATIONS

1. Park, H.W., et al. 2014. Hepatoprotective role of Sestrin2 against chronic ER stress. *Nat. Commun.* 5: 4233.
2. Park, H.W., et al. 2014. Pharmacological correction of obesity-induced autophagy arrest using calcium channel blockers. *Nat. Commun.* 5: 4834.
3. Choi, Y.H. and Nam, T.J. 2015. Toxicity of cryoprotective agents and signaling of Insulin-like growth factor in hen clam (*Macra chinensis*) embryos. *Cryo Letters* 36: 158-164.
4. Yuan, J.H., et al. 2017. Neuroprotection by plumbagin involves BDNF-TrkB-PI3K/Akt and ERK1/2/JNK pathways in isoflurane-induced neonatal rats. *J. Pharm. Pharmacol.* 69: 896-906.
5. Xi, Z., et al. 2020. Gastrodin relieves inflammation injury induced by lipopolysaccharides in MRC-5 cells by up-regulation of miR-103. *J. Cell. Mol. Med.* 24: 1451-1459.
6. Mbondji-Wonje, C., et al. 2020. Genetic variability of the U5 and downstream sequence of major HIV-1 subtypes and circulating recombinant forms. *Sci. Rep.* 10: 13214.
7. Della Via, F.I., et al. 2021. (-)-Epigallocatechin-3-gallate induces apoptosis and differentiation in leukaemia by targeting reactive oxygen species and PIN1. *Sci. Rep.* 11: 9103.
8. Jun, J., et al. 2022. Discovery of novel imidazole chemotypes as isoform-selective JNK3 inhibitors for the treatment of Alzheimer's disease. *Eur. J. Med. Chem.* 245: 114894.
9. Dinh, D.T., et al. 2023. Progesterone receptor mediates ovulatory transcription through RUNX transcription factor interactions and chromatin remodelling. *Nucleic Acids Res.* 51: 5981-5996.

RESEARCH USE

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