SANTA CRUZ BIOTECHNOLOGY, INC.

c-Jun (H-79): sc-1694

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, 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).

CHROMOSOMAL LOCATION

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

SOURCE

c-Jun (H-79) is a rabbit polyclonal antibody raised against amino acids 1-79 of c-Jun of human origin.

PRODUCT

Each vial contains 200 µg IgG 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-1694 X, 200 µg/0.1 ml.

c-Jun (H-79) is available conjugated to agarose (sc-1694 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to either phycoerythrin (sc-1694 PE), fluorescein (sc-1694 FITC), Alexa Fluor® 488 (sc-1694 AF488) or Alexa Fluor® 647 (sc-1694 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

In addition, c-Jun (H-79) is available conjugated to either TRITC (sc-1694 TRITC, 200 µg/ml) or Alexa Fluor® 405 (sc-1694 AF405), 100 µg/2 ml, for IF, IHC(P) and FCM.

APPLICATIONS

c-Jun (H-79) is recommended for detection of c-Jun p39 of mouse, rat, human and *Xenopus laevis* origin by Western Blotting (starting dilution 1:200, 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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). c-Jun (H-79) is also recommended for detection of c-Jun p39 in additional species, including canine, bovine and porcine.

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

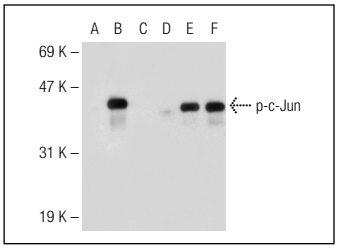
c-Jun (H-79) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of c-Jun: 39 kDa.

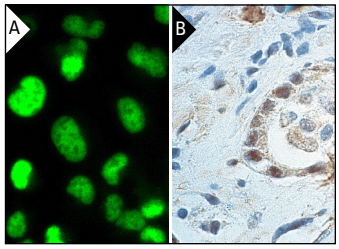
STORAGE

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

DATA



Western blot analysis of c-Jun phosphorylation in non-transfected: sc-117752 (**A**,**D**), untreated mouse c-Jun transfected: sc-125069 (**B**,**E**) and lambda protein phosphatase (sc-200312A) treated human c-Jun transfected: sc-125069 (**C**,**F**) 293T whole cell lysates. Antibodies tested include p-c-Jun (KM-1): sc-822 (**A**,**B**,**C**) and c-Jun (H-79): sc-1694 (**D**,**E**,**F**).



c-Jun (H-79): sc-1694. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School (**A**). Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal human prostate tissue showing nuclear localization (**B**).

SELECT PRODUCT CITATIONS

1. Faller, D.P., et al. 1995. Evidence for location of the CFTR in human placental apical membrane vesicles. Am. J. Physiol. 269: C148-C155.
2. Martinez-Mora, C., et al. 2012. Fibroin and sericin from *Bombyx mori* silk stimulate cell migration through upregulation and phosphorylation of c-Jun. PLoS ONE 7: e42271.
3. Yang, H., et al. 2012. Withaferin A inhibits the proteasome activity in mesothelioma *in vitro* and *in vivo*. PLoS ONE 7: e41214.
4. Zhang, X.Y., et al. 2012. Upregulation of sestrin 2 expression via JNK pathway activation contributes to autophagy induction in cancer cells. Cell. Signal. 25: 150-158.
5. Kumar, P., et al. 2013. The transcriptional co-repressor myeloid translocation gene 16 inhibits glycolysis and stimulates mitochondrial respiration. PLoS ONE 8: e68502.
6. Kaufmann, A., et al. 2013. Regulation of immediate-early gene transcription following activation of $G_{\alpha\ \theta}$-coupled designer receptors. J. Cell. Biochem. 114: 681-696.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **c-Jun (G-4): sc-74543** or **c-Jun (B-2): sc-376488**, our highly recommended monoclonal alternatives to c-Jun (H-79). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **c-Jun (G-4): sc-74543**.