SANTA CRUZ BIOTECHNOLOGY, INC.

p-c-Jun (Ser 63/73): sc-16312

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).

CHROMOSOMAL LOCATION

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

SOURCE

p-c-Jun (Ser 63/73) is available as either goat (sc-16312) or rabbit (sc-16312-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Ser 63 and Ser 73 phosphorylated 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.

Blocking peptide available for competition studies, sc-16312 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-16312 X, 200 µg/0.1 ml.

APPLICATIONS

p-c-Jun (Ser 63/73) is recommended for detection of Ser 63 and Ser 73 dually phosphorylated c-Jun 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-c-Jun (Ser 63/73) is also recommended for detection of correspondingly phosphorylated 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 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.

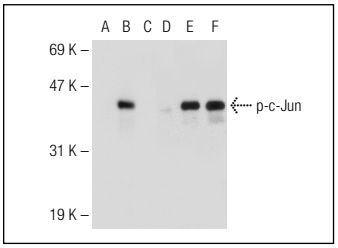
p-c-Jun (Ser 63/73) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of p-c-Jun: 39 kDa.

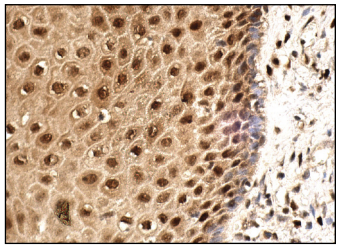
STORAGE

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 (Ser 63/73)-R: sc-16312-R (**A**,**B**,**C**) and c-Jun (H-79): sc-1694 (**D**,**E**,**F**).



p-c-Jun (Ser 63/73)-R: sc-16312-R. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervix tissue showing nuclear and cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. Borriello, A., et al. 2000. $p27^{Kip1}$ accumulation is associated with retinoic-induced neuroblastoma differentiation: evidence of a decreased proteasome-dependent degradation. Oncogene 19: 51-60.
2. Nagata, H., et al. 2009. Inhibition of c-Jun NH_2-terminal kinase switches Smad3 signaling from oncogenesis to tumor- suppression in rat hepatocellular carcinoma. Hepatology 49: 1944-1953.
3. Li, T., et al. 2009. Inhibition of cerebral ischemia/reperfusion-induced injury by adenovirus expressed C-terminal amino acids of GluR6. Brain Res. 1300: 169-176.
4. Martín, R., et al. 2009. Natural triterpenic diols promote apoptosis in astrocytoma cells through ROS-mediated mitochondrial depolarization and JNK activation. PLoS ONE 4: e5975.
5. Giannoni, E., et al. 2011. Estradiol and progesterone strongly inhibit the innate immune response of mononuclear cells in newborns. Infect. Immun. 79: 2690-2698.
6. Dasgupta, S., et al. 2011. Mechanism of lipid induced insulin resistance: activated PKCε is a key regulator. Biochim. Biophys. Acta 1812: 495-506.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **p-c-Jun (KM-1): sc-822**, our highly recommended monoclonal alternative to p-c-Jun (Ser 63/73). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p-c-Jun (KM-1): sc-822**.