SANTA CRUZ BIOTECHNOLOGY, INC.

p-c-Jun (Ser 73): sc-7981

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, JUND (human) mapping to 19p13.11; Jun (mouse) mapping to 4 C5, Jund (mouse) mapping to 8 B3.3.

SOURCE

p-c-Jun (Ser 73) is available as either a goat (sc-7981) or rabbit (sc-7981-R) polyclonal antibody raised against a short amino acid sequence containing 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-7981 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-c-Jun (Ser 73) is recommended for detection of Ser 73 phosphorylated c-Jun and correspondingly phosphorylated Ser 100 JunD of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-c-Jun (Ser 73) is also recommended for detection of correspondingly phosphorylated c-Jun and JunD in additional species, including equine, canine, bovine, porcine and avian.

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

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

Positive Controls: c-Jun (m): 293T Lysate: sc-125069, A-431 + PMA nuclear extract: sc-2123 or NIH/3T3 whole cell lysate: sc-2210.

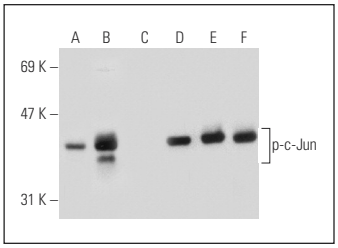
STORAGE

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

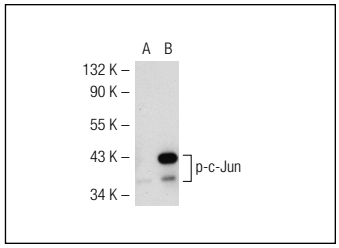
RESEARCH USE

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

DATA



Western blot analysis of c-Jun phosphorylation in untreated (**A**,**D**), UV irradiated (**B**,**E**) and UV irradiated and lambda protein phosphatase (sc-200312A) treated (**C**,**F**) NIH/3T3 whole cell lysates. Antibodies tested include p-c-Jun (Ser 73)-R: sc-7981-R (**A**,**B**,**C**) and c-Jun (H-79): sc-1694 (**D**,**E**,**F**).



p-c-Jun (Ser 73): sc-7981. Western blot analysis of c-Jun phosphorylation in non-transfected: sc-117752 (**A**) and mouse c-Jun transfected: sc-125069 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Pawelczyk, T., et al. 2003. Insulin induces expression of adenosine kinase gene in rat lymphocytes by signaling through the mitogen-activated protein kinase pathway. Exp. Cell Res. 286: 152-163.
2. Lindeman, J.H., et al. 2009. Clinical trial of doxycycline for matrix metalloproteinase-9 inhibition in patients with an abdominal aneurysm: doxycycline selectively depletes aortic wall neutrophils and cytotoxic T cells. Circulation 119: 2209-2216.
3. Zuo, H., et al. 2009. CD151 gene delivery after myocardial infarction promotes functional neovascularization and activates FAK signaling. Mol. Med. 15: 307-315.
4. Hassan, M., et al. 2009. Hepatitis C virus core protein triggers hepatic angiogenesis by a mechanism including multiple pathways. Hepatology 49: 1469-1482.
5. Kook, S.H., et al. 2009. Mechanical force induces type I collagen expression in human periodontal ligament fibroblasts through activation of ERK/JNK and AP-1. J. Cell. Biochem. 106: 1060-1067.
6. Abdul-Hussien, H., et al. 2010. The pathophysiology of abdominal aortic aneurysm growth: corresponding and discordant inflammatory and proteolytic processes in abdominal aortic and popliteal artery aneurysms. J. Vasc. Surg. 51: 1479-1487.
7. Wooton-Kee, C.R., et al. 2010. Mechanisms for increased expression of cholesterol 7α-hydroxylase (Cyp7a1) in lactating rats. Hepatology 51: 277-285.
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10. Sirignano, E., et al. 2014. Different 6-Aryl-fulvenes exert anti-proliferative effects on cancer cells. Anticancer Agents Med. Chem. 15: 1-7.