SANTA CRUZ BIOTECHNOLOGY, INC.

Jun B (G-9): sc-398061

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The c-Jun proto-oncogene was first identified as the cellular homolog of the avian sarcoma virus v-Jun oncogene. The c-Jun protein along with c-Fos is a component of the AP-1 transcriptional complex. c-Jun can form either Jun/Jun homodimers or Jun/Fos heterodimers via the leucine repeats in both proteins. Homo- and heterodimers bind to the TGACTCA consensus sequence present in numerous promoters and initially identified as the phorbol ester tumor promoter response element (TRE). Two additional genes, Jun B and Jun D have been shown to be almost identical to c-Jun in their C-terminal regions, which are involved in dimerization and DNA binding, whereas their N-terminal domains, which are involved in transcriptional activation, diverge. All three form heterodimers among themselves and with c-Fos and other members of the Fos gene family.

REFERENCES

1. Maki, Y., et al. 1987. Avian sarcoma virus 17 carries the jun oncogene. Proc. Natl. Acad. Sci. USA 84: 2848-2852.
2. Nishimura, T., et al. 1988. The avian cellular homolog of the oncogene jun. Oncogene 3: 659-663.
3. Curran, T., et al. 1988. Fos and Jun: the AP-1 connection. Cell 55: 395-397.
4. Ryder, K., et al. 1988. Induction of proto-oncogene c-Jun by serum growth factors. Proc. Natl. Acad. Sci. USA 85: 8464-8467.

CHROMOSOMAL LOCATION

Genetic locus: JUNB (human) mapping to 19p13.2.

SOURCE

Jun B (G-9) is a mouse monoclonal antibody raised against amino acids 1-44 mapping at the N-terminus of Jun B of human 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.

APPLICATIONS

Jun B (G-9) is recommended for detection of Jun B of 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).

Suitable for use as control antibody for Jun B siRNA (h): sc-35726, Jun B shRNA Plasmid (h): sc-35726-SH and Jun B shRNA (h) Lentiviral Particles: sc-35726-V.

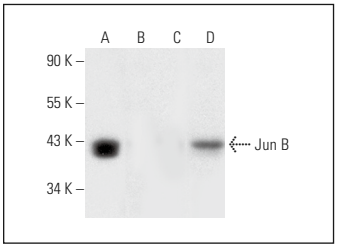
Molecular Weight of Jun B: 39 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or Caki-1 cell lysate: sc-2224.

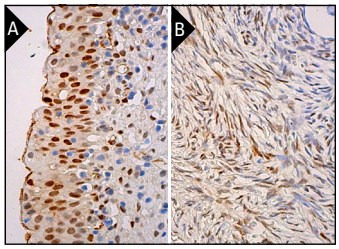
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Jun B (G-9): sc-398061. Western blot analysis of Jun B expression in HeLa (**A**), NIH/3T3 (**B**) and KNRK (**C**) nuclear extracts and Caki-1 whole cell lysate (**D**). Note lack of reactivity with mouse and rat Jun B in lanes **B** and **C**.



Jun B (G-9): sc-398061. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing nuclear staining of urothelial cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing nuclear staining of subset of ovarian stroma cells (**B**).

SELECT PRODUCT CITATIONS

1. Li, J., et al. 2005. The role of c-Jun in the AP-1 activation induced by naturally occurring isothiocyanates. Food Chem. Toxicol. 43: 1373-1380.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

See **Jun B (C-11): sc-8051** for Jun B antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.