SANTA CRUZ BIOTECHNOLOGY, INC.

c-Jun (h): 293 Lysate: sc-110759

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).

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.
3. Distel, R.J., et al. 1987. Nucleoprotein complexes that regulate gene expression in adipocyte differentiation: direct participation of c-Fos. Cell 49: 835-844.
4. Renz, M., et al. 1987. Chromatin association and DNA-binding properties of the c-Fos proto-oncogene product. Nucleic Acids Res. 15: 277-292.
5. Angel, P., et al. 1988. Oncogene Jun encodes a sequence-specific transactivator similar to AP-1. Nature 332: 166-171.
6. Franza, B.R., et al. 1988. The Fos complex and Fos related antigens recognize sequence elements that contain AP-1 binding sites. Science 239: 1150-1153.
7. Auwerx, J., et al. 1991. IP-1: a dominant inhibitor of Fos/Jun whose activity is modulated by phosphorylation. Cell 64: 983-993.
8. Binetruy, B., et al. 1991. Ha-Ras augments c-Jun activity and stimulates phosphorylation of its activation domain. Nature 351: 122-127.
9. Waldron, R.T., et al. 2007. Identification of a novel phosphorylation site in c-Jun directly targeted *in vitro* by protein kinase D. Biochem. Biophys. Res. Commun. 356: 361-367.

CHROMOSOMAL LOCATION

Genetic locus: JUN (human) mapping to 1p32.1.

PRODUCT

c-Jun (h): 293 Lysate represents a lysate of human c-Jun transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

c-Jun (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive c-Jun antibodies. Recommended use: 10-20 µl per lane.

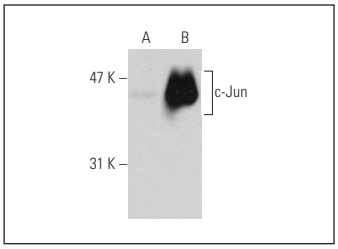
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-tranfected 293 cells.

c-Jun (G-4): sc-74543 is recommended as a positive control antibody for Western Blot analysis of enhanced human c-Jun expression in c-Jun transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

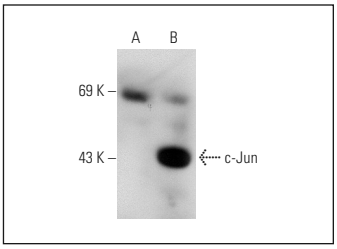
RECOMMENDED SUPPORT REAGENTS

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.

DATA



c-Jun (G-4): sc-74543. Western blot analysis of c-Jun expression in non-transfected: sc-110760 (**A**) and human c-Jun transfected: sc-110759 (**B**) 293 whole cell lysates.



c-Jun (B-1): sc-166540. Western blot analysis of c-Jun expression in non-transfected: sc-110760 (**A**) and human c-Jun transfected: sc-110759 (**B**) 293 whole cell lysates.

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.