

c-Fos (8B5): sc-81444

BACKGROUND

The c-Fos oncogene was initially detected in two independent murine osteosarcoma virus isolates and an avian nephroblastoma virus. The cellular homolog, c-Fos, encodes a nuclear phospho-protein that is rapidly and transiently induced by a variety of agents and functions as a transcriptional regulator for several genes. In contrast to c-Jun proteins, which form homo- and heterodimers which bind to specific DNA response elements, c-Fos proteins are only active as heterodimers with members of the Jun gene family. Functional homologs of c-Fos include the Fra-1, Fra-2 and Fos B genes. In addition, selected ATF/CREB family members can form leucine zipper dimers with Fos and Jun. Different dimers exhibit differential specificity and affinity for AP-1 and CRE sites.

REFERENCES

1. Finkel, M.P., et al. 1966. Virus induction of osteosarcomas in mice. *Science* 151: 698-701.
2. 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.
3. Nishizawa, M., et al. 1987. An avian transforming retrovirus isolated from a nephroblastoma that carries the Fos gene as the oncogene. *J. Virol.* 61: 3733-3740.
4. 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.
5. Renz, M., et al. 1987. Chromatin association and DNA-binding properties of the c-Fos proto-oncogene product. *Nucleic Acids Res.* 15: 277-292.

CHROMOSOMAL LOCATION

Genetic locus: FOS (human) mapping to 14q24.3; Fos (mouse) mapping to 12 D2.

SOURCE

c-Fos (8B5) is a mouse monoclonal antibody raised against the N-terminus of c-Fos of human origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 500 µl of PBS with < 0.1% sodium azide, 1% gelatin, PEG and sucrose.

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 or our catalog for detailed protocols and support products.

APPLICATIONS

c-Fos (8B5) is recommended for detection of c-Fos of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for c-Fos siRNA (h): sc-29221, c-Fos siRNA (m): sc-29222, c-Fos shRNA Plasmid (h): sc-29221-SH, c-Fos shRNA Plasmid (m): sc-29222-SH, c-Fos shRNA (h) Lentiviral Particles: sc-29221-V and c-Fos shRNA (m) Lentiviral Particles: sc-29222-V.

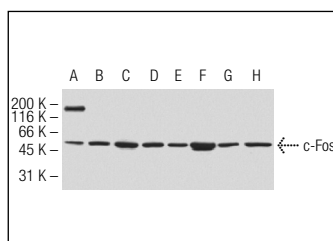
Molecular Weight of c-Fos: 62 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or PC-3 cell lysate: sc-2220.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



c-Fos (8B5): sc-81444. Western blot analysis of c-Fos expression in serum starved A-431 (A), A549 (B), SKOV3 (C), OVCAR-5 (D), HaCaT (E), PC-3 (F), HeLa (G), and Hep G2 (H) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Smadja, D.M., et al. 2008. Interleukin 8 is differently expressed and modulated by PAR-1 activation in early and late endothelial progenitor cells. *J. Cell. Mol. Med.* 7: 2534-2546.
2. Nath, N., et al. 2010. Modulation of stress genes expression profile by nitric oxide-releasing aspirin in Jurkat T leukemia cells. *Biochem. Pharmacol.* 79: 1759-1771.
3. Gori, I., et al. 2011. Tumor necrosis factor- α activates estrogen signaling pathways in endometrial epithelial cells via estrogen receptor α . *Mol. Cell. Endocrinol.* 345: 27-37.
4. Li, X.W., et al. 2012. Inhibitory effect of calcitonin gene-related peptide on hypoxia-induced rat pulmonary artery smooth muscle cells proliferation: role of ERK1/2 and p27. *Eur. J. Pharmacol.* 679: 117-126.