

Fos B (83B1138): sc-52926

BACKGROUND

The v-Fos oncogene was initially identified as the transforming gene of two independent murine osteosarcoma virus isolates and an avian nephroblastoma virus. The cellular homolog, c-Fos, encodes a nuclear phosphoprotein 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 TPA response elements (TREs), c-Fos proteins are only active as heterodimers with members of the Jun gene family. Murine Fos B encodes a nuclear protein of 338 amino acids which has 70% homology with c-Fos, exhibits similar kinetics of expression as c-Fos and forms heterodimers with both c-Jun and Jun B, which bind to TRE DNA response elements. Functional homologs of c-Fos and Fos B include Fra-1 and Fra-2 genes.

REFERENCES

- Finkel, M.P., et al. 1966. Virus induction of osteosarcomas in mice. *Science* 151: 698-701.
- Curran, T., et al. 1984. FBR murine osteosarcoma virus. I. Molecular analysis and characterization of a 75,000-Da gag-Fos fusion product. *Virology* 135: 218-228.
- 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.
- 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.
- Renz, M., et al. 1987. Chromatin association and DNA-binding properties of the c-Fos protooncogene product. *Nucleic Acids Res.* 15: 277-292.
- Zerial, M., et al. 1989. The product of a novel growth factor activated gene, Fos B, interacts with JUN proteins enhancing their DNA binding activity. *EMBO J.* 8: 805-813.
- Nishina, H., et al. 1990. Isolation and characterization of Fra-2, an additional member of the Fos gene family. *Proc. Natl. Acad. Sci. USA* 87: 3619-3623.
- Castellazzi, M., et al. 1991. Overexpression of c-Jun, Jun B, or Jun D affects cell growth differently. *Proc. Natl. Acad. Sci. USA* 88: 8890-8894.

CHROMOSOMAL LOCATION

Genetic locus: FOSB (human) mapping to 19q13.32; Fosb (mouse) mapping to 7 A3.

SOURCE

Fos B (83B1138) is a mouse monoclonal antibody raised against a synthetic Fos B peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

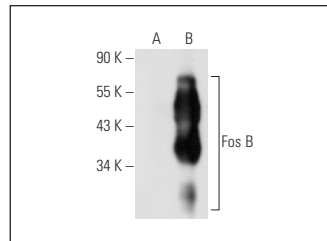
Fos B (83B1138) is recommended for detection of Fos B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Fos B siRNA (h): sc-35403, Fos B siRNA (m): sc-35404, Fos B shRNA Plasmid (h): sc-35403-SH, Fos B shRNA Plasmid (m): sc-35404-SH, Fos B shRNA (h) Lentiviral Particles: sc-35403-V and Fos B shRNA (m) Lentiviral Particles: sc-35404-V.

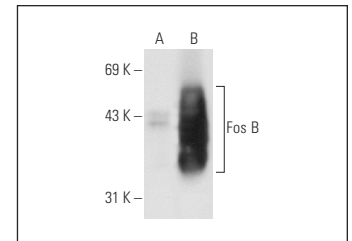
Molecular Weight of Fos B: 45 kDa.

Positive Controls: Fos B (h): 293T Lysate: sc-112170 or rat brain extract: sc-2392.

DATA



Fos B (83B1138): sc-52926. Western blot analysis of Fos B expression in non-transfected: sc-117752 (A) and human Fos B transfected: sc-112170 (B) 293T whole cell lysates.



Fos B (83B1138): sc-52926. Western blot analysis of Fos B expression in non-transfected: sc-117752 (A) and human Fos B transfected: sc-177246 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Carceller, H., et al. 2020. Perineuronal nets regulate the inhibitory perisomatic input onto parvalbumin interneurons and γ activity in the prefrontal cortex. *J. Neurosci.* 40: 5008-5018.

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.



See **Fos B (F-7): sc-398595** for Fos B antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.