SANTA CRUZ BIOTECHNOLOGY, INC.

Fos B (F-7): sc-398595

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 TPAresponse 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

1. Finkel, M.P., et al. 1966. Virus induction of osteosarcomas in mice. Science 151: 698-701.
2. Curran, T., et al. 1984. FBR murine osteosarcoma virus. Virology 135: 218-228.
3. 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.
4. 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.
5. Renz, M., et al. 1987. Chromatin association and DNA-binding properties of the c-fos protooncogene product. Nucleic Acids Res. 15: 277-292.
6. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Fos B (F-7) is a mouse monoclonal antibody raised against amino acids 75-150 of Fos 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-398595 X, 200 µg/0.1 ml.

Fos B (F-7) is available conjugated to agarose (sc-398595 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398595 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-398595 PE), fluorescein (sc-398595 FITC), Alexa Fluor® 488 (sc-398595 AF488) or Alexa Fluor® 647 (sc-398595 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

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APPLICATIONS

Fos B (F-7) is recommended for detection of Fos B of mouse, rat and 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 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.

Fos B (F-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

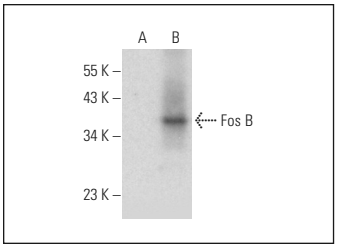
Molecular Weight of Fos B: 45 kDa.

Positive Controls: Fos B (h2): 293T Lysate: sc-177246.

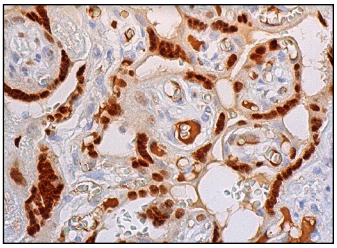
RECOMMENDED SUPPORT REAGENTS

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, 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). 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.

DATA



Fos B (F-7): sc-398595. 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.



Fos B (F-7): sc-398595. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear staining of trophoblastic cells.

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.