

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

## 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

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. Renz, M., et al. 1987. Chromatin association and DNA-binding properties of the c-Fos protooncogene product. *Nucleic Acids Res.* 15: 277-292.

## 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<sub>1</sub> 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; to either phycoerythrin (sc-398595 PE), fluorescein (sc-398595 FITC), Alexa Fluor® 488 (sc-398595 AF488), Alexa Fluor® 546 (sc-398595 AF546), Alexa Fluor® 594 (sc-398595 AF594) or Alexa Fluor® 647 (sc-398595 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398595 AF680) or Alexa Fluor® 790 (sc-398595 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## 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).

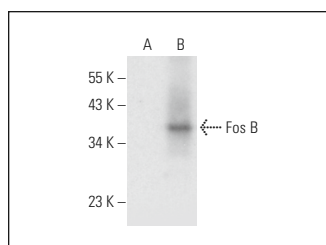
Suitable for use as control antibody for Fos B siRNA (h): sc-35403, Fos B siRNA (m): sc-35404, Fos B shRNA Plasmid (h): sc-35403-SH, Fos B shRNA Plasmid (m): sc-35404-SH, Fos B shRNA (h) Lentiviral Particles: sc-35403-V and Fos B shRNA (m) Lentiviral Particles: sc-35404-V.

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

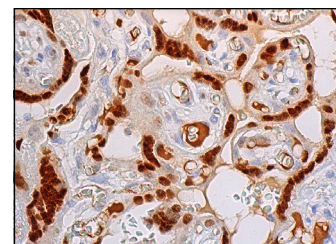
Molecular Weight of Fos B: 45 kDa.

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

## 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.

## SELECT PRODUCT CITATIONS

1. Chen, L., et al. 2017. Transcriptomes of major renal collecting duct cell types in mouse identified by single-cell RNA-seq. *Proc. Natl. Acad. Sci. USA* 114: E9989-E9998.
2. Hua, Y., et al. 2019. Fluoxetine adjunct to therapeutic exercise promotes motor recovery in rats with cerebral ischemia: roles of nucleus accumbens. *Brain Res. Bull.* 153: 1-7.
3. Zhang, R., et al. 2020. EZH2 inhibitors-mediated epigenetic reactivation of FOSB inhibits triple-negative breast cancer progress. *Cancer Cell Int.* 20: 175.
4. Mbonjji-Wonje, C., et al. 2020. Genetic variability of the U5 and downstream sequence of major HIV-1 subtypes and circulating recombinant forms. *Sci. Rep.* 10: 13214.
5. Yu, Y., et al. 2021. Circ\_0021087 acts as a miR-184 sponge and represses gastric cancer progression by adsorbing miR-184 and elevating FOSB expression. *Eur. J. Clin. Invest.* 51: e13605.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.