## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Fos $B(H-75)$ is a rabbit polyclonal antibody raised against amino acids $75-150$ of Fos $B$ of human origin.

## PRODUCT

Each vial contains $200 \mu \mathrm{~g} \mathrm{lgG}$ 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-7203 X, $200 \mu \mathrm{~g} / 0.1 \mathrm{ml}$.

## APPLICATIONS

Fos $B(H-75)$ is recommended for detection of Fos $B$ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:1001:1000), immunoprecipitation [ $1-2 \mu \mathrm{~g}$ per 100-500 $\mu \mathrm{g}$ of total protein ( 1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:501:500), 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).
Fos $B(H-75)$ is also recommended for detection of Fos $B$ in additional species, including canine.

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 (H-75) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.
Molecular Weight of Fos B: 45 kDa .
Positive Controls: Fos B (h): 293T Lysate: sc-112170 or rat brain extract: sc-2392.

## RESEARCH USE

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

## STORAGE

Store at $4^{\circ} \mathrm{C},{ }^{* *}$ DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



Fos B (H-75): sc-7203. Western blot analysis of Fos B expression in non-transfected: sc-117752 (A) and human Fos B transfected: sc-112170 (B) 293 Thole cell lysates.


Fos B (H-75): sc-7203. Immunofluorescence staining of methanol-fixed I-11.15 cells showing nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded, pimozide-treated rat brain tissue showing nuclear staining of the ventral lateral striatum. Image kindly provided by Regina Vontell, Adrienne Betz and John Salamone, University of Connecticut (B).

## SELECT PRODUCT CITATIONS

1. Lai, C.F., et al. 2002. Signal transductions induced by bone morphogenetic protein-2 and transforming growth factor $\beta$ in normal human osteoblastic cells. J. Biol. Chem. 277: 15514-15522.
2. Bavendiek, U., et al. 2002. Induction of tissue factor expression in human endothelial cells by CD40 ligand is mediated via activator protein 1, nuclear factor к B, and Egr-1. J. Biol. Chem. 277: 25032-25039.
3. Bidder, M., et al. 2002. Osteopontin transcription in aortic vascular smooth muscle cells is controlled by glucose-regulated upstream stimulatory factor and activator protein-1 activities. J. Biol. Chem. 277: 44485-44496.
4. Zhang, D., et al. 2002. The dopamine D1 receptor is a critical mediator for cocaine-induced gene expression. J. Neurochem. 82: 1453-1464.
5. Ruud, J., et al. 2007. Identification of rat brainstem neuronal structures activated during cancer-induced anorexia. J. Comp. Neurol. 504: 275-286.
6. Gingras, M.E., et al. 2009. Differential binding of the transcription factors $\mathrm{Sp1}, \mathrm{AP}-1$, and NFI to the promoter of the human $\alpha 5$ integrin gene dictates its transcriptional activity. Invest. Ophthalmol. Vis. Sci. 50: 57-67.
7. Landreville, S., et al. 2011. Suppression of $\alpha 5$ gene expression is closely related to the tumorigenic properties of uveal melanoma cell lines. Pigment Cell Melanoma Res. 24: 643-655.

Try Fos B (F-7): sc-398595 or Fos B (C-6): sc-515210
our highly recommended monoclonal alternatives to Fos B (H-75). Also, for AC, HRP, FITC, PE, Alexa Fluor ${ }^{\circledR}$ 488 and Alexa Fluor ${ }^{\circledR} 647$ conjugates, see Fos B (F-7): sc-398595.

