SANTA CRUZ BIOTECHNOLOGY, INC.

Fos B (H-237): sc-28213

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 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.

SOURCE

Fos B (H-237) is a rabbit polyclonal antibody raised against amino acids 1-237 of Fos B of human origin.

PRODUCT

Each vial contains 200 µg IgG 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-28213 X, 200 µg/0.1 ml.

APPLICATIONS

Fos B (H-237) is recommended for detection of Fos B, ΔFos B, and to a lesser extent, c-Fos, Fra-1 and Fra-2 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)], 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).

Fos B (H-237) is also recommended for detection of Fos B, ΔFos B, and to a lesser extent, c-Fos, Fra-1 and Fra-2 in additional species, including equine and canine.

Fos B (H-237) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Fos B: 45 kDa.

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

STORAGE

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

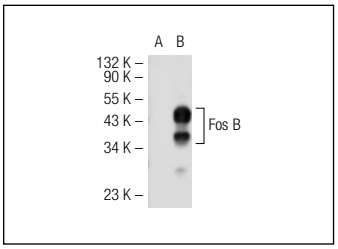
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

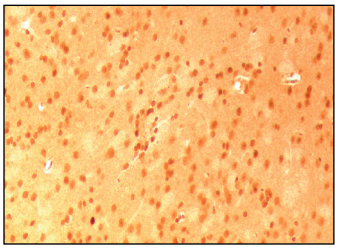
RESEARCH USE

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

DATA



Fos B (H-237): sc-28213. 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 (H-237): sc-28213. Immunoperoxidase staining of formalin-fixed, paraffin-embedded rat brain tissue showing nuclear staining of the Nucleus Accumbens area. Image kindly provided by Regina Vontell, Adrienne Betz and John Salamone, University of Connecticut.

SELECT PRODUCT CITATIONS

1. Li, B., et al. 2008. Fluoxetine-mediated 5-HT2B receptor stimulation in astrocytes causes EGF receptor transactivation and ERK phosphorylation. Psychopharmacology 201: 443-458.
2. Li, B., et al. 2008. Signalling pathways for transactivation by dexmedetomidine of epidermal growth factor receptors in astrocytes and its paracrine effect on neurons. Br. J. Pharmacol. 154: 191-203.
3. Weiner, J., et al. 2009. PKA-mediated responses in females' estrous cycle affect cocaine-induced responses in dopamine-mediated intracellular cascades. Neuroscience 161: 865-876.
4. Cao, X., et al. 2010. Striatal overexpression of ΔFosB reproduces chronic levodopa-induced involuntary movements. J. Neurosci. 30: 7335-7343.
5. Marazziti, D., et al. 2011. Absence of the GPR37/PAEL receptor impairs striatal Akt and ERK2 phosphorylation, ΔFosB expression, and conditioned place preference to amphetamine and cocaine. FASEB J. 25: 2071-2081.
6. Kong, H.K., et al. 2012. The regulatory mechanism of the LY6K gene expression in human breast cancer cells. J. Biol. Chem. 287: 38889-38900.