SANTA CRUZ BIOTECHNOLOGY, INC.

Fos B (C-11): sc-8013

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 (C-11) is a mouse monoclonal antibody raised against amino acids 75-150 mapping at the N-terminus of Fos B of human origin.

PRODUCT

Each vial contains 200 µg IgM 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-8013 X, 200 µg/0.1 ml.

Fos B (C-11) is available conjugated to agarose (sc-8013 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

APPLICATIONS

Fos B (C-11) 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)], 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 (C-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Fos B: 45 kDa.

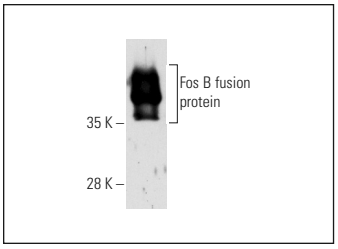
STORAGE

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

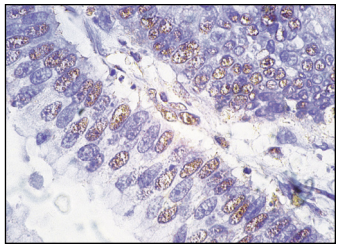
RESEARCH USE

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

DATA



Fos B (C-11): sc-8013. Western blot analysis of human recombinant Fos B fusion protein.



Fos B (C-11): sc-8013. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon carcinoma tissue showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Silvers, A.L., et al. 2002. UVA irradiation-induced activation of activator protein-1 is correlated with induced expression of AP-1 family members in the human keratinocyte cell line HaCaT. Photochem. Photobiol. 75: 302-310.
2. Watanabe, M., et al. 2003. AP-1 mediated relief of repressive activity of the CD30 promoter microsatellite in Hodgkin and Reed-Sternberg cells. Am. J. Pathol. 163: 633-641.
3. Shimokawa, N., et al. 2005. Extracellular acidification enhances DNA binding activity of MafG-Fos B heterodimer. J. Cell. Physiol. 205: 77-85.
4. Du, L., et al. 2006. Differentiation-specific factors modulate epidermal CYP1-4 gene expression in human skin in response to retinoic acid and classic aryl hydrocarbon receptor ligands. J. Pharmacol. Exp. Ther. 319: 1162-1171.
5. Li, W., et al. 2007. MG-132 sensitizes TRAIL-resistant prostate cancer cells by activating c-Fos/c-Jun heterodimers and repressing c-FLIP$_L$. Cancer Res. 67: 2247-2255.
6. Têtu, B., et al. 2008. Immunohistochemical analysis of possible chemoresistance markers identified by micro-arrays on serous ovarian carcinomas. Mod. Pathol. 21: 1002-1010.
7. Por, E., et al. 2010. The cancer/testis antigen CAGE with oncogenic potential stimulates cell proliferation by up-regulating cyclins D1 and E in an AP-1- and E2F-dependent manner. J. Biol. Chem. 285: 14475-14485.
8. Chamcheu, J.C., et al. 2019. Fisetin, a 3,7,3',4'-tetrahydroxyflavone inhibits the PI3K/Akt/mTOR and MAPK pathways and ameliorates psoriasis pathology in 2D and 3D organotypic human inflammatory skin models. Cells 8: 1089.
9. Puri, R.V., et al. 2019. Notch4 activation aggravates NFκB mediated inflammation in HIV-1 associated nephropathy. Dis. Model. Mech. 12: dmm040642.

CONJUGATES

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.