

# c-Fos (4-10G): sc-413

## BACKGROUND

The c-Fos oncogene was initially detected in two independent murine osteosarcoma virus isolates and an avian nephroblastoma virus. The cellular homolog, c-Fos, encodes a nuclear phospho-protein 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 response elements, c-Fos proteins are only active as heterodimers with members of the Jun gene family. Functional homologs of c-Fos include the Fra-1, Fra-2 and Fos B genes. In addition, selected ATF/CREB family members can form leucine zipper dimers with Fos and Jun. Different dimers exhibit differential specificity and affinity for AP-1 and CRE sites.

## REFERENCES

1. Finkel, M.P., et al. 1966. Virus induction of osteosarcomas in mice. *Science* 151: 698-701.
2. 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.

## SOURCE

c-Fos (4-10G) is a mouse monoclonal antibody epitope mapping between amino acids 1-111 at the N-terminus of c-Fos of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</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-413 X, 200 µg/0.1 ml.

c-Fos (4-10G) is available conjugated to agarose (sc-413 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-413 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-413 PE), fluorescein (sc-413 FITC), Alexa Fluor<sup>®</sup> 488 (sc-413 AF488), Alexa Fluor<sup>®</sup> 546 (sc-413 AF546), Alexa Fluor<sup>®</sup> 594 (sc-413 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-413 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-413 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-413 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

c-Fos (4-10G) is recommended for detection of c-Fos, Fos B, Fra-1 and Fra-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

c-Fos (4-10G) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of c-Fos: 62 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, A-431 nuclear extract: sc-2122 or Y79 nuclear extract: sc-2126.

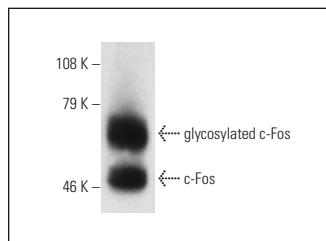
## RESEARCH USE

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

## STORAGE

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

## DATA



c-Fos (4-10G): sc-413. Western blot analysis of human recombinant c-Fos immunoprecipitated with c-Fos (4-10G): sc-413 and detected with c-Fos (K-25): sc-253.

## SELECT PRODUCT CITATIONS

1. Rooney, J., et al. 1995. Coordinate and cooperative roles for NF-AT and AP-1 in the regulation of the murine IL-4 gene. *Immunity* 2: 473-483.
2. Shetty, S., et al. 2007. Regulation of urokinase receptor expression by protein tyrosine phosphatases. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 292: L414-L421.
3. Zhu, C.Y., et al. 2009. Cell growth suppression by thanatos-associated protein 11 (THAP11) is mediated by transcriptional downregulation of c-Myc. *Cell Death Differ.* 16: 395-405.
4. Cho, S.O., et al. 2010. Involvement of Ras and AP-1 in *Helicobacter pylori*-induced expression of COX-2 and iNOS in gastric epithelial AGS cells. *Dig. Dis. Sci.* 55: 988-996.
5. Dong, Y., et al. 2011. Nociceptive afferents to the premotor neurons that send axons simultaneously to the facial and hypoglossal motoneurons by means of axon collaterals. *PLoS ONE* 6: e25615.
6. Hara, M., et al. 2013. Transcriptional regulation of the mouse CD11c promoter by AP-1 complex with JunD and Fra2 in dendritic cells. *Mol. Immunol.* 53: 295-301.
7. Li, H., et al. 2018. Inhibition of GALR1 in PFC alleviates depressive-like behaviors in postpartum depression rat model by upregulating CREB-BDNF and 5-HT levels. *Front. Psychiatry* 9: 588.
8. Giuliani, C. 2019. The flavonoid quercetin induces AP-1 activation in FRTL-5 thyroid cells. *Antioxidants* 8: 112.
9. Angelopoulou, E., et al. 2021. Daily and estral regulation of RFRP-3 neurons in the female mice. *J. Circadian Rhythms* 19: 4.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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