

## c-Fos (C-10): sc-271243



The Power to Question

## 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.

## SOURCE

c-Fos (C-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 120-155 within an internal region 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-271243 X, 200 µg/0.1 ml.

c-Fos (C-10) is available conjugated to agarose (sc-271243 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271243 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271243 PE), fluorescein (sc-271243 FITC), Alexa Fluor® 488 (sc-271243 AF488), Alexa Fluor® 546 (sc-271243 AF546), Alexa Fluor® 594 (sc-271243 AF594) or Alexa Fluor® 647 (sc-271243 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271243 AF680) or Alexa Fluor® 790 (sc-271243 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271243 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

c-Fos (C-10) 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 1:100, 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).

c-Fos (C-10) is also recommended for detection of c-Fos, Fos B, Fra-1 and Fra-2 in additional species, including equine, canine, bovine, porcine and avian.

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

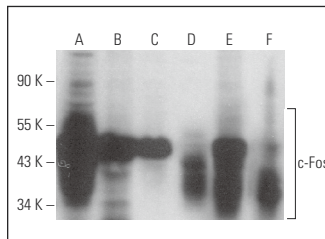
Molecular Weight of c-Fos: 62 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

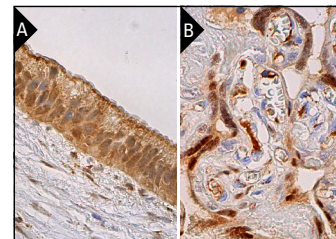
## STORAGE

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

## DATA



c-Fos (C-10): sc-271243. Western blot analysis of c-Fos expression in HeLa (A), Hep G2 (B), MIA PaCa-2 (C), NIH/3T3 (D) and A-431 (E) whole cell lysates and NIH/3T3 nuclear extract (F).



c-Fos (C-10): sc-271243. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing nuclear and cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear and cytoplasmic staining of trophoblastic cells (B).

## SELECT PRODUCT CITATIONS

- Lee, J.K., et al. 2013. Cleavage of the JunB transcription factor by caspases generates a carboxyl-terminal fragment that inhibits activator protein-1 transcriptional activity. *J. Biol. Chem.* 288: 21482-21495.
- Shang, W., et al. 2016. Curcumin inhibits osteoclastogenic potential in PBMCs from rheumatoid arthritis patients via the suppression of MAPK/RANK/c-Fos/NFATc1 signaling pathways. *Mol. Med. Rep.* 14: 3620-3626.
- Liu, J., et al. 2017. Enhanced AMPA receptor trafficking mediates the anorexigenic effect of endogenous Glucagon-like peptide-1 in the paraventricular hypothalamus. *Neuron* 96: 897-909.e5.
- Wang, Q., et al. 2018. *Dendrobium officinale* orchid extract prevents ovariectomy-induced osteoporosis *in vivo* and inhibits RANKL-induced osteoclast differentiation *in vitro*. *Front. Pharmacol.* 8: 966.
- Lin, M.S., et al. 2019. Degeneration of ipRGCs in mouse models of Huntington's disease disrupts non-image-forming behaviors before motor impairment. *J. Neurosci.* 39: 1505-1524.
- Pérez-Revuelta, L., et al. 2020. Secretagogin expression in the mouse olfactory bulb under sensory impairments. *Sci. Rep.* 10: 21533.
- Ren, B., et al. 2021. *Toxoplasma* and *Eimeria* co-opt the host c-Fos expression for intracellular development in mammalian cells. *Comput. Struct. Biotechnol. J.* 19: 719-731.
- Zimare, L., et al. 2022. Roux-En-Y gastric bypass (RYGB) surgery during high liquid sucrose diet leads to gut microbiota-related systematic alterations. *Int. J. Mol. Sci.* 23: 1126.

## RESEARCH USE

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

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