SANTA CRUZ BIOTECHNOLOGY, INC.

c-Fos (E-8): sc-166940

SANTA CRUZ BIOTECHNOLOGY

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 (E-8) 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_1 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-166940 X, 200 µg/0.1 ml.

c-Fos (E-8) is available conjugated to agarose (sc-166940 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166940 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166940 PE), fluorescein (sc-166940 FITC), Alexa Fluor® 488 (sc-166940 AF488), Alexa Fluor® 546 (sc-166940 AF546), Alexa Fluor® 594 (sc-166940 AF594) or Alexa Fluor® 647 (sc-166940 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166940 AF680) or Alexa Fluor® 790 (sc-166940 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166940 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

c-Fos (E-8) is recommended for detection of c-Fos, Fos B, Fra-1 and Fra-2 of mouse, rat, human and zebrafish 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 (E-8) 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 (E-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

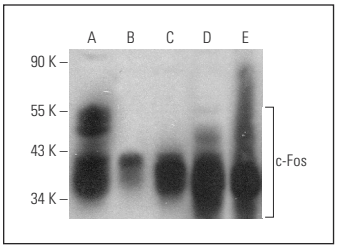
Molecular Weight of c-Fos: 62 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, MIA PaCa-2 cell lysate: sc-2285 or HeLa whole cell lysate: sc-2200.

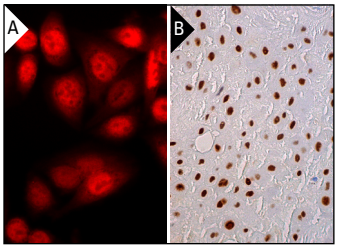
STORAGE

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

DATA



c-Fos (E-8): sc-166940. Western blot analysis of c-Fos expression in HeLa (**A**), MIA PaCa-2 (**B**), NIH/3T3 (**C**) and A-431 (**D**) whole cell lysates and NIH/3T3 nuclear extract (**E**).



c-Fos (E-8) Alexa Fluor® 594: sc-166940 AF594. Direct immunofluorescence staining of formalin-fixed SW480 cells showing nuclear localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear staining of decidual cells (**B**).

SELECT PRODUCT CITATIONS

1. Wrona, D., et al. 2013. Chronic antidepressant desipramine treatment increases open field-induced brain expression and spleen production of interleukin 10 in rats. Brain Res. Bull. 99: 117-131.
2. Parker, L.M., et al. 2017. Neurochemistry of neurons in the ventrolateral medulla activated by hypotension: are the same neurons activated by glucoprivation? J. Comp. Neurol. 525: 2249-2264.
3. Hartline, J.T., et al. 2017. Serotonergic activation during courtship and aggression in the brown anole, *Anolis sagrei*. PeerJ 5: e3331.
4. Dey, I. and Bradbury, N.A. 2017. Activation of TPA-response element present in human lemur tyrosine kinase 2 (lmtk2) gene increases its expression. Biochem. Biophys. Rep. 12: 140-150.
5. Richard, J.E., et al. 2017. CNS β3-adrenergic receptor activation regulates feeding behavior, white fat browning, and body weight. Am. J. Physiol. Endocrinol. Metab. 313: E344-E358.
6. Zhang, Y., et al. 2017. Astrocytic process plasticity and IKKβ/NFκB in central control of blood glucose, blood pressure, and body weight. Cell Metab. 25: 1091-1102.
7. Pena, I.A., et al. 2017. Pyridoxine-dependent epilepsy in zebrafish caused by Aldh7a1 deficiency. Genetics 207: 1501-1518.
8. Lappano, R., et al. 2017. The lauric acid-activated signaling prompts apoptosis in cancer cells. Cell Death Discov. 3: 17063.
9. Özdemir, S., et al. 2018. Cypermethrin, chlorpyrifos, deltamethrin, and imidacloprid exposure up-regulates the mRNA and protein levels of BDNF and c-Fos in the brain of adult zebrafish *(Danio rerio)*. Chemosphere 203: 318-326.

RESEARCH USE

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