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; and to either phycoerythrin (sc-166940 PE), fluorescein (sc-166940 FITC), Alexa Fluor® 488 (sc-166940 AF488) or Alexa Fluor® 647 (sc-166940 AF647), 200 µg/ml, for IF, IHC(P) 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).

RESEARCH USE

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

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.

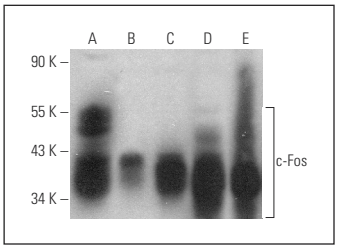
Molecular Weight of c-Fos: 62 kDa.

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

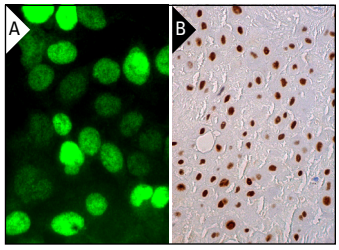
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

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): sc-166940. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (**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. Beauchemin, M., et al. 2015. Dynamic microRNA-101a and Fosab expression controls zebrafish heart regeneration. Development 142: 4026-4037.
3. Liu, W. and Crews, F.T. 2015. Adolescent intermittent ethanol exposure enhances ethanol activation of the nucleus accumbens while blunting the prefrontal cortex responses in adult rat. Neuroscience 293: 92-108.

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 for detailed protocols and support products.