

c-Fos (K-25): sc-253



The Power to Question

BACKGROUND

The v-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.

CHROMOSOMAL LOCATION

Genetic locus: FOS (human) mapping to 14q24.3; Fos (mouse) mapping to 12 D2.

SOURCE

c-Fos (K-25) is available as either rabbit (sc-253) or goat (sc-253-G) polyclonal affinity purified antibody raised against a peptide mapping within an internal region of c-Fos of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-253 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as phycoerythrin conjugate for flow cytometry, sc-253 PE, 100 tests; as agarose conjugate for immunoprecipitation, sc-253 AC, 500 µg/0.25 ml agarose in 1 ml; as TransCruz reagent for Gel Supershift and ChIP applications, sc-253 X, 200 µg/0.1 ml; as HRP conjugate for Western blotting, sc-253 HRP, 200 µg/1 ml; and as fluorescein (sc-253 FITC) or rhodamine (sc-253 TRITC) conjugates for use in immunofluorescence, 200 µg/1 ml.

Available as Alexa Fluor® 405 (sc-253 AF405), Alexa Fluor® 488 (sc-253 AF488) or Alexa Fluor® 647 (sc-253 AF647) conjugates for flow cytometry or immunofluorescence; 100 µg/2 ml.

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APPLICATIONS

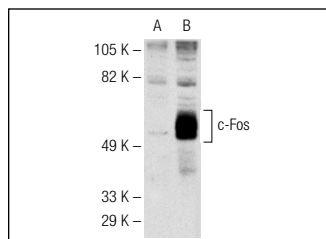
c-Fos (K-25) is recommended for detection of c-Fos of mouse, rat, human and *Xenopus laevis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). c-Fos (K-25) is also recommended for detection of c-Fos in additional species, including equine, canine, bovine, porcine, avian and feline.

c-Fos (K-25) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

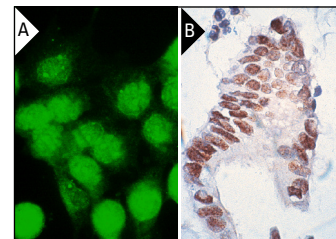
STORAGE

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

DATA



c-Fos (K-25): sc-253. Western blot analysis of Fos gene family protein expression in untreated (A) and PMA-treated (B) Jurkat nuclear extracts.



c-Fos (K-25): sc-253. Immunofluorescence staining of methanol-fixed A-431 cells showing nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon carcinoma tissue showing nuclear localization (B).

SELECT PRODUCT CITATIONS

1. Ferrer, I., et al. 1996. Naturally occurring (programmed) and radiation-induced apoptosis are associated with selective c-Jun expression in the developing rat brain. *Eur. J. Neurosci.* 8: 1286-1298.
2. Jakob, T.F. 2011. Stimulation-dependent gene expression in the central auditory system. *HNO* 59: 230-238.
3. Wang, S., et al. 2011. Transcriptional regulation of bone sialoprotein gene by interleukin-11. *Gene* 476: 46-55.
4. Wang, S., et al. 2011. Calcium hydroxide regulates bone sialoprotein gene transcription in human osteoblast-like Saos2 cells. *J. Oral Sci.* 53: 77-86.
5. Li, Z., et al. 2011. cAMP and fibroblast growth factor 2 regulate bone sialoprotein gene expression in human prostate cancer cells. *Gene* 471: 1-12.
6. Llewellyn-Smith, I.J., et al. 2012. Oxytocin-immunoreactive innervation of identified neurons in the rat dorsal vagal complex. *Neurogastroenterol. Motil.* 24: e136-e146.
7. Han, B., et al. 2012. Suppression of AP1 transcription factor function in keratinocyte suppresses differentiation. *PLoS ONE* 7: e36941.
8. Zhou, L., et al. 2013. Transcriptional regulation of the human bone sialoprotein gene by fibroblast growth factor 2. *J. Oral Sci.* 55: 63-70.

RESEARCH USE

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



Try **c-Fos (E-8): sc-166940** or **c-Fos (C-10): sc-271243**, our highly recommended monoclonal alternatives to c-Fos (K-25). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **c-Fos (E-8): sc-166940**.