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PRODUCT DATASHEET

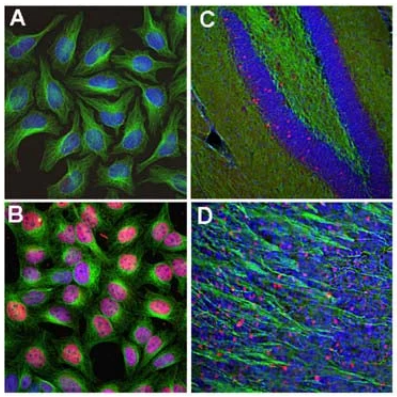
Anti-Cellular oncogene fos (c-FOS) Antibody

Product Details

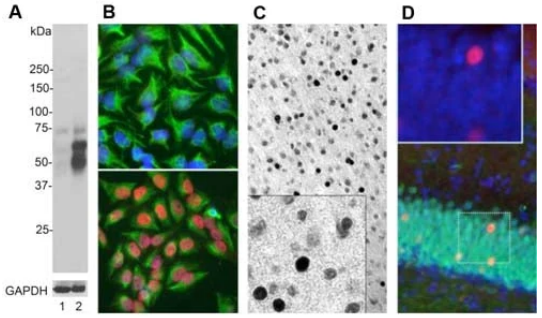
Available Variants	50 µg (SKU:R-1751-50)
Conjugate	Unconjugated
Isotype	IgG
Host Species	Rabbit
Format	Affinity-purified
Physical State	Lyophilized
Buffer	Lyophilized from PBS buffer pH 7.2-7.6 with 0.1% trehalose, and sodium azide
Applications	ICC, IHC, WB
Dilution Ranges	WB: 1:1000-1:2000 (See application details.) IHC: 1:20000-1:50000 (See application details.) ICC: 1:2000-1:10000
Species Reactivity	Human, Mouse, Rat
Immunogen	Full length, E.coli-derived recombinant human c-FOS protein.
Molecular Weight	50-65 kDa (See application details.)
Storage	Spin vial briefly before opening. Reconstitute with 50 µL sterile-filtered, ultrapure water. Centrifuge to remove any insoluble material. Store lyophilized, unopened vial at 2-8°C or lower. After reconstitution, prepare aliquots and store at -20°C for a higher stability. Avoid freeze-thaw cycles.
UniProt ID	P01100 UniProt Summary: Nuclear phosphoprotein which forms a tight but non-covalently linked complex with the JUN/AP-1 transcription factor. In the heterodimer, FOS and JUN/AP-1 basic regions each seems to interact with symmetrical DNA half sites. On TGF-beta activation, forms a multimeric SMAD3/SMAD4/JUN/FOS complex at the AP1/SMAD-binding site to regulate TGF-beta-mediated signaling. Has a critical function in regulating the development of cells destined to form and maintain the skeleton. It is thought to

	have an important role in signal transduction, cell proliferation and differentiation. In growing cells, activates phospholipid synthesis, possibly by activating CDS1 and PI4K2A. This activity requires Tyr-dephosphorylation and association with the endoplasmic reticulum.
Country of Origin	United States
Shipping	25°C (ambient)
Expiration	12 months after date of receipt (unopened vial).
Usage Statement	For research use only.
NCBI Gene ID	2353

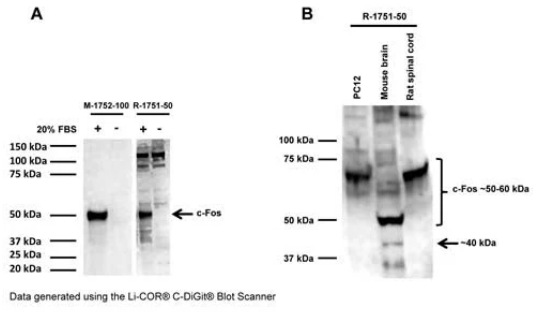
Product Images



Analysis of c-Fos expression in cultured HeLa cells by **Immunocytochemistry (A-B)**, and in mouse hippocampus **(C)** or olfactory bulb sections **(D)** by **Immunohistochemistry**. HeLa cells were kept in serum-free medium for 36 hours, before cells were stimulated with 20% FBS for 30 minutes (B), while control cells (A) were treated with PBS as a control. The rabbit anti-c-Fos antibody (red, 1:5,000) labels nuclei of stimulated cells, while DAPI (blue) stains all cell nuclei independent of their activity stage. Green: mouse anti-tubulin antibody. Mouse hippocampus (C) and olfactory bulb sections (D) were stained with rabbit anti-c-Fos antibody (red, **1:20,000**) and mouse antibody to NF-L (green). The c-FOS antibody stains only nuclei of spontaneously active neurons. NF-L is expressed in axons of neuronal cells. Blue: Cell nuclei stained with DAPI. IHC Method: Following transcardial perfusion of mouse with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45 uM, and free-floating sections were stained with above antibodies.



A: Western blot analysis of c-Fos expression in HeLa cells using R-1751-50. HeLa cells were serum-starved for 36 hours (Lane 1). Serum-starved HeLa cells were stimulated with 20% FBS for 2 hours (Lane 2). R-1751-50 recognizes bands in the range of 50-65 kDa, which represent multiple forms of c-Fos. A loading control was performed by stripping and re-probing the membrane with a monoclonal antibody against GAPDH, M-1376-250.
B: Immunofluorescence staining of HeLa cells with R-1751-50. c-Fos staining (red) only localizes in the nuclei of 20% FBS stimulated cells (bottom panel), but not in un-stimulated cells (top panel). Cells were counter-stained with Chicken polyclonal antibody against vimentin, C-1409-50 (green) and DAPI (blue).
C: Immunohistochemistry using R-1751-50 on 4% PFA transcardial-perfused mouse brain sections (45 uM thickness). c-FOS immunoreactive cells (dark colour, localized in cell nucleus) were visualized using a standard HRP-DAB (horseradish peroxidase-diaminobenzidine) staining technique. **D: Immunohistochemistry** using R-1751-50 (red) and Mouse monoclonal anti-NeuN/Fox3 (M-377-100, green) on mouse cortical sections. Neurons positive for c-Fos and Fox3/NeuN appear yellow. The insert shows an enlarged image of staining with R-1751-50. Nuclei were labeled with DAPI (blue).



A: Western blot analysis of c-Fos expression in rat C6 cells (40 ug lysate loading per lane). C6 cells were serum-starved for 20 hours and then stimulated with 20% FBS for 2 hrs (+). Control cells were left in serum-depleted culture medium (-). M-1752-100 and R-1751-50 detect a strong band at 50 kDa in stimulated cells but not in control cells, representing increased c-FOS expression.
B:Western blot analysis of c-Fos expression in PC12 cell lysates (Lane 1, 20 µg), mouse brain (Lane 2, 50 µg) and rat spinal cord homogenate (Lane 3, 50 µg). R-1751-50 detects multiple c-Fos isoforms between ~50-65 kDa which are due to post-translational modifications. In mouse brain, R-1751-50 detects a common c-Fos degradation product (~41 kDa) which appears to be lysate and preparation dependent.
Western Blotting Method: SDS-PAGE: denaturing and reducing, 4-12% Bis-Tris gel; Transfer: Tris-Glycine (Towbin's) buffer with 20% methanol; Membrane: PVDF (0.45 µm); Blocking: 5% skim milk in TBST, 1 hour at RT; Primary antibodies: R-1751-50 (1 µg/mL), M-1752-100 (1 µg/mL), incubation overnight at 4°C; Secondary antibodies: anti-rabbit-HRP (1/6000) or anti-mouse-HRP (1/3000), 1 hour at RT; Detection: Chemiluminiscence.

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