PRODUCT INFORMATION

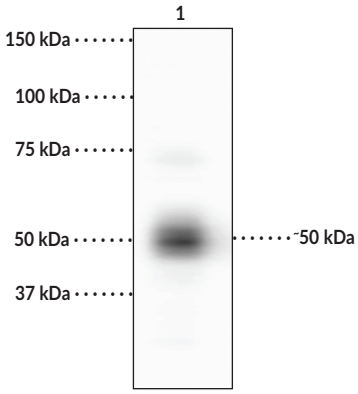
c-Fos Monoclonal Antibody

Item No. 29262

Overview and Properties

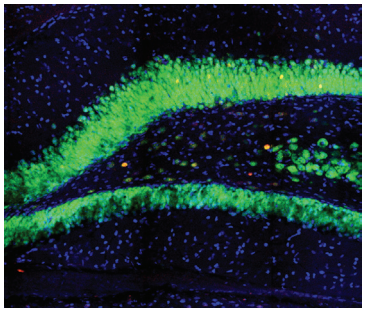
Contents: This vial contains 100 µl of protein G-purified monoclonal antibody.
Synonyms: AP-1 Transcription Factor Subunit, FBJ Murine Osteosarcoma Viral Oncogene Homolog, Fos Proto-oncogene, Proto-oncogene c-Fos
Immunogen: Recombinant human full-length c-Fos
Molecular Weight: ~50 kDa
Species Reactivity: (+) Human, bovine, mouse, rat
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥1 year
Storage Buffer: PBS with 5 mM sodium azide and 50% glycerol
Host: Mouse
Applications: Immunocytochemistry (ICC), immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution is 1:1,000 for ICC and IHC and 1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: HeLa cell lysate

WB of HeLa cell lysate showing specific immunolabeling of the ~50 kDa Fos protein. c-Fos Monoclonal Antibody was used as the detection



Immunofluorescence of a section of rat hippocampus showing neurons labeled with c-Fos Monocolonal Antibody (red), counterstained with FOX3/NeuN (green), and the nuclei stained with DAPI. When both Fos and FOX3 are expressed, the label appears orange.

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Description

c-Fos is a widely expressed nuclear protein and member of the Fos protein family that includes c-Fos, FosB, Fra-1, and Fra-2.[1] It is a proto-oncogene that contains a leucine zipper motif to facilitate heterodimerization with Jun family proteins, such as c-Jun, to form the transcription factor complex activator protein-1 (AP-1) that has roles in cell proliferation, differentiation, and apoptosis. Expression of *c-fos* is induced in response to growth factors, tumor promoters, cytokines, and UV radiation.[1,2] In neurons, *c-fos* expression is induced upon depolarization and is widely used as a marker of neuronal activation.[3] *c-fos* is also overexpressed in a variety of tumor cells, and transgenic overexpression of *c-fos* in mice induces formation of chondrosarcomas.[2,4] Cayman's c-Fos Monoclonal Antibody can be used for immunocytochemistry (ICC), immunohistochemistry (IHC), and Western blot (WB) applications. The antibody recognizes c-Fos at approximately 50 kDa from human, bovine, mouse, and rat samples.

References

1. Kovács, K.J. c-Fos as a transcription factor: A stressful (re)view from a functional map. *Neurochem. Int.* **33(4)**, 287-297 (1998).
2. Tkach, V., Tulchinsky, E., Lukanidin, E., *et al*. Role of the fos family members, c-Fos, Fra-1 and Fra-2, in the regulation of cell motility. *Oncogene* **22(32)**, 5045-5054 (2003).
3. Hoffman, G.E., Smith, M.S., and Verbalis, J.G. c-Fos and related immediate early gene products as markers of activity in neuroendocrine systems. *Front. Neuroendocrinol.* **14(3)**, 173-213 (1993).
4. Jacenko, O. *c-fos* and bone loss: A proto-oncogene regulates osteoclast lineage determination. *BioEssays* **17(4)**, 277-281 (1995).

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