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c-Fos

Cat.No. 226 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 μl antiserum, lyophilized. For reconstitution add 100 μl $H_2O,$ then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: not tested yet ICC: 1 : 500 IHC: 1 : 400 up to 1 : 800 IHC-P/FFPE: not tested yet FACS: yes
Immunogen	Synthetic peptide corresponding to AA 2 to 17 from rat c-Fos (UniProt Id: P12841)
Reactivity	Reacts with: human (P01100), rat (P12841), mouse (P01101), monkey, ape, cow, dog, pig. Other species not tested yet.
Specificity	Specific for c-Fos.
matching control	226-0P

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

The Fos gene family consists of 4 members: **c-Fos**, FosB, FosL1, and FosL2, also called Fos related antigen 1 and 2 (FRA1 and 2). These leucine zipper proteins can dimerize with proteins of the JUN family leading to the formation of the transcription factor complex AP1.

The expression of Fos proteins is rapidly and transiently induced by different extracellular stimuli such as growth factors, cytokines, neurotransmitters, polypeptide hormones, stress.

In addition Fos proteins can be phosphorylated by ERK kinases modulating transcriptional activity, protein stability and localization. c-Fos is homologous to the Finkel-Biskis-Jinkins (FBJ) murine osteosarcoma virus oncogene.

Selected References SYSY Antibodies

Dynamic changes in the relationship of microglia to cardiovascular neurons in response to increases and decreases in blood pressure.

Kapoor K, Bhandare AM, Nedoboy PE, Mohammed S, Farnham MM, Pilowsky PM Neuroscience (2016) 329: 12-29. **IHC**

Crucial role of feedback signals from prelimbic cortex to basolateral amygdala in the retrieval of morphine withdrawal memory. Song J, Shao D, Guo X, Zhao Y, Cui D, Ma Q, Sheng H, Ma L, Lai B, Chen M, Zheng P, et al. Science advances (2019) 5(2): eaat3210. **IHC; tested species: mouse**

Structural and functional alterations in the prefrontal cortex after post-weaning social isolation: relationship with speciestypical and deviant aggression. Biro L, Toth M, Sipos E, Bruzsik B, Tulogdi A, Bendahan S, Sandi C, Haller J

Brain structure & function (2017) 222(4): 1861-1875. IHC; tested species: rat

Selected General References

Open field stress and neurons containing calcium-binding proteins in the piriform cortex of the rat. Klejbor I, Ludkiewicz B, Domaradzka-Pytel B, Wójcik S, Moryś J Journal of physiology and pharmacology : an official journal of the Polish Physiological Society (2005) 56(2): 223-331.

c-Fos expression in rat brain stem and spinal cord in response to activation of cardiac ischemia-sensitive afferent neurons and electrostimulatory modulation.

Hua F, Harrison T, Qin C, Reifsteck A, Ricketts B, Carnel C, Williams CA American journal of physiology. Heart and circulatory physiology (2004) 287(6): H2728-38.

Impaired long-term memory and NR2A-type NMDA receptor-dependent synaptic plasticity in mice lacking c-Fos in the CNS. Fleischmann A, Hvalby O, Jensen V, Strekalova T, Zacher C, Layer LE, Kvello A, Reschke M, Spanagel R, Sprengel R, Wagner EF, et al.

The Journal of neuroscience : the official journal of the Society for Neuroscience (2003) 23(27): 9116-22.

Variations in Jun and Fos protein expression and AP-1 activity in cycling, resting and stimulated fibroblasts. Lallemand D, Spyrou G, Yaniv M, Pfarr CM Oncogene (1997) 14(7): 819-30.

Existence of different Fos/Jun complexes during the G0-to-G1 transition and during exponential growth in mouse fibroblasts: differential role of Fos proteins. Kovary K, Bravo R Molecular and cellular biology (1992) 12(11): 5015-23.

Expression of different Jun and Fos proteins during the G0-to-G1 transition in mouse fibroblasts: in vitro and in vivo associations. Kovary K, Bravo R Molecular and cellular biology (1991) 11(5): 2451-9.

A naturally occurring truncated form of FosB that inhibits Fos/Jun transcriptional activity. Nakabeppu Y, Nathans D Cell (1991) 64(4): 751-9.

Both products of the fosB gene, FosB and its short form, FosB/SF, are transcriptional activators in fibroblasts. Dobrazanski P, Noguchi T, Kovary K, Rizzo CA, Lazo PS, Bravo R Molecular and cellular biology (1991) 11(11): 5470-8.

Stimulation of 3T3 cells induces transcription of the c-fos proto-oncogene. Greenberg ME, Ziff EB Nature () 311(5985): 433-8.