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[Marker Primary Antibody]

Rabbit Anti-c-fos/FITC Conjugated antibody

Catalog Number: SL0469R-FITC

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-c-fos/FITC
Immunogen:	KLH conjugated synthetic peptide derived from human c-fos
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Dog,Pig,Cow,Horse,Rabbit)
Background:	background: The Fos gene family consists of 4 members: FOS, FOSB, FOSL1, and FOSL2. These genes encode leucine zipper proteins that can dimerize with proteins of the JUN family, thereby forming the transcription factor complex AP-1. As such, the FOS proteins have been implicated as regulators of cell proliferation, differentiation, and transformation. In some cases, expression of the FOS gene has also been associated with apoptotic cell death. [provided by RefSeq, Jul 2008]. **Function:** Nuclear phosphoprotein which forms a tight butnon-covalently linked complex with the JUN/AP-1 transcriptionfactor. In the heterodimer, FOS and JUN/AP-1 basic regions eachseems to interact with symmetrical DNA half sites. On TGF-betaactivation, forms a multimeric SMAD3/SMAD4/JUN/FOS complex at theAP1/SMAD-binding site to regulate TGF-beta-mediated signaling. Hasa critical function in regulating the Has a critical function inregulating the development of cells destined to form and maintainthe skeleton. It is thought to have an important role in

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	signaltransduction, cell proliferation and differentiation. **Subunit:** Heterodimer; with JUN (By similarity). Interacts withMAFB. Component of the SMAD3/SMAD4/JUN/FOS complexrequired for syngernistic TGF-beta-mediated transcription at theAP1 promoter site. Interacts with SMAD3; the interaction is weakeven on TGF-beta activation. Interacts with MAFB. Interacts withDSIPI; this interaction inhibits the binding of active AP1 to itstarget DNA. **Subcellular Location:** Nucleus. **Post-translational modifications:** Phosphorylated in the C-terminal upon stimulation by nervegrowth factor (NGF) and epidermal growth factor (EGF).Phosphorylated, in vitro, by MAPK and RSK1. Phosphorylation on bothSer-362 and Ser-374 by MAPK1/2 and RSK1/2 leads to proteinstabilization with phosphorylation on Ser-374 being the major sitefor protein stabilization on NGF stimulation. Phosphorylation onSer-362 and Ser-374 primes further phosphorylations on Thr-325 andThr-331 through promoting docking of MAPK to the DEF domain.Phosphorylation on Thr-232, induced by HA-RAS, activates thetranscriptional activity and antagonizes sumoylation.Phosphorylation on Ser-362 by RSK2 in osteoblasts contributes toosteoblast transformation (By similarity). [PTM] Constitutively sumoylated by SUMO1, SUMO2 and SUMO3.Desumoylated by SENP2. Sumoylation requires heterodimerization withJUN and is enhanced by mitogen stimulation. Sumoylation inhibitsthe AP-1 transcriptional activity and is, itself, inhibited byRas-activated phosphorylation on Thr-232. **Similarity:** Belongs to the bZIP family. Fos subfamily. Contains 1 bZIP domain. **Database links:** **Entrez Gene:** 2353 Human **Entrez Gene:** 14281 Mouse **Entrez Gene:** 314322 Rat Omim: 164810 Human **SwissProt:** P01100 Human **SwissProt:** P01101 Mouse **SwissProt:** P12841 Rat **Unigene:** 246513 Mouse **Unigene:** 103750 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. The role of c-fos is mainly used in research on various types of malignant

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	Tumors such as esophageal cancer, nasopharyngeal carcinoma, breast cancer, colon cancer, and brain diseases. The c-fos proto-oncogene and its protein product not only participate in normal cell growth and differentiation processes, but also participate in intracellular information transmission and cellular energy metabolism, have regulatory effects on cell proliferation, differentiation, and transformation, and play an extremely fundamental and important role in life activities.

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