

Rabbit Anti-c-Fos antibody

SLM-52034R

Product Name c-Fos

Chinese Name c-fosRecombinant rabbit monoclonal anti

Alias Cellular oncogene fos; FBJ murine osteosarcoma viral v fos oncogene homolog antibody FBJ Osteosarcoma Virus; FOS; FOS protein; G0 G1 switch regulatory protein 7; G0S7; Oncogene FOS; Proto oncogene protein c fos; v fos FBJ murine osteosarcoma viral oncogene homolog; AP-1; p55; FOS_HUMAN; Proto-oncogene c-Fos; G0/G1 switch regulatory protein 7.

Research Area Tumour Cell biology Neurobiology Signal transduction transcriptional regulatory factor

Immunogen Species Rabbit

Clonality Monoclonal

Clone NO. 13B5

React Species Human(predicted:Mouse,Rat)

Applications Flow-Cyt=1ug/Test (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 41kDa

Cellular localization The nucleus cytoplasmic

Form Liquid

Concentration 1mg/ml

immunogen Recombinant human c-Fos protein (50-200aa)

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution Human(predicted:Mouse,Rat)1M TBS(pH7.4) with 1% BSA,
Human(predicted:Mouse,Rat)3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic

or diagnostic applications.

PubMed

[PubMed](#)

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 but non-covalently linked complex with the JUN/AP-1 transcription factor. In the heterodimer, FOS and JUN/AP-1 basic regions each seem 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.

Subunit:

Heterodimer; with JUN (By similarity). Interacts with MAFB. Component of the SMAD3/SMAD4/JUN/FOS complex required for synergistic TGF-beta-mediated transcription at the AP1 promoter site. Interacts with SMAD3; the interaction is weaker on TGF-beta activation. Interacts with MAFB. Interacts with DSIPI; this interaction inhibits the binding of active AP1 to its target DNA.

Product Detail

Subcellular Location:

Nucleus.

Post-translational modifications:

Phosphorylated in the C-terminal upon stimulation by nerve growth factor (NGF) and epidermal growth factor (EGF). Phosphorylated, in vitro, by MAPK and RSK1. Phosphorylation on both Ser-362 and Ser-374 by MAPK1/2 and RSK1/2 leads to protein stabilization with phosphorylation on Ser-374 being the major site for protein stabilization on NGF stimulation. Phosphorylation on Ser-362 and Ser-374 primes further phosphorylations on Thr-325 and Thr-331 through promoting docking of MAPK to the DEF domain. Phosphorylation on Thr-232, induced by HA-RAS, activates the transcriptional activity and antagonizes sumoylation. Phosphorylation on Ser-362 by RSK2 in osteoblasts contributes to osteoblast transformation (By similarity). [PTM] Constitutively sumoylated by SUMO1, SUMO2 and SUMO3. Desumoylated by SENP2. Sumoylation requires heterodimerization with JUN and is enhanced by mitogen stimulation. Sumoylation inhibits the AP-1 transcriptional activity and is, itself, inhibited by Ras-activated phosphorylation on Thr-232.

Similarity:

Belongs to the bZIP family. Fos subfamily.
Contains 1 bZIP domain.

SWISS:

P01100

Gene ID:

2353

Database links:

[Entrez Gene: 2353](#) Human

[Entrez Gene: 14281](#) Mouse

[Entrez Gene: 314322](#) Rat

[Omim: 164810](#) Human

[SwissProt: P01100](#) Human

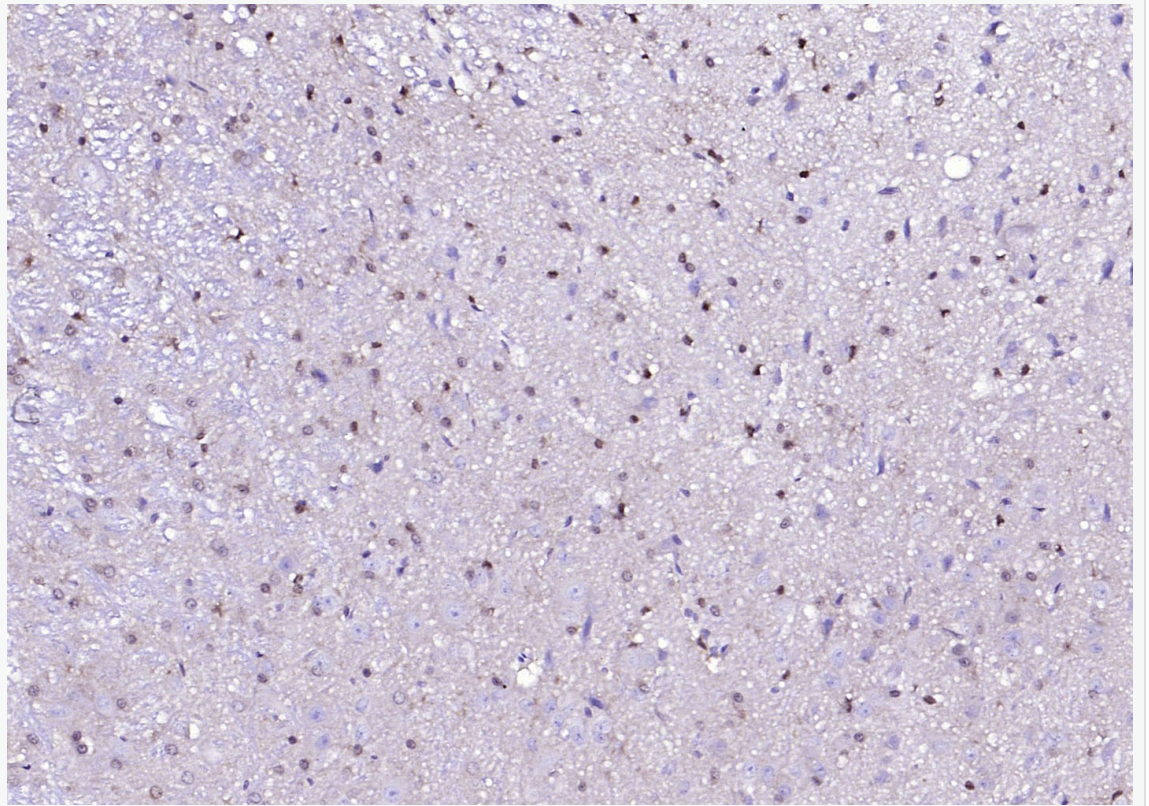
[SwissProt: P01101](#) Mouse

[SwissProt: P12841](#) Rat

[Unigene: 246513](#) Mouse

[Unigene: 103750](#) Rat

**Product
Picture**



Paraformaldehyde-fixed, paraffin embedded (rat cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (c-Fos) Monoclonal Antibody, Unconjugated (SLM-52034R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.