

Rabbit c-Fos Polyclonal Antibody | anti-c-Fos antibody

Phospho-c-Fos (Ser374) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329807	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Rabbit (100%), Dog (100%), Chicken (100%)	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

c-Fos; Polyclonal Antibody; Phospho-c-Fos (Ser374) Antibody; Activator protein 1; AP 1; C FOS; Cellular oncogene c fos; Cellular oncogene fos; FBJ murine osteosarcoma viral (v fos) oncogene homolog (oncogene FOS); FBJ murine osteosarcoma viral oncogene homolog; FBJ murine osteosarcoma viral v fos oncogene homolog; FBJ Osteosarcoma Virus; FOS; FOS protein; FOS_HUMAN; G0 G1 switch regulatory protein 7; G0/G1 switch regulatory protein 7; G0S7; Oncogene FOS; p55; proto oncogene c Fos; Proto oncogene protein c fos; Proto-oncogene c-Fos; v fos FBJ murine osteosarcoma viral oncogene homolog; anti-c-Fos antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Rabbit (100%), Dog (100%), Chicken (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-c-Fos (Ser374) Antibody detects endogenous levels of c-Fos only when phosphorylated at Ser374.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-c-Fos antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human c-Fos around the phosphorylation site of Ser374.
Conjugation	Unconjugated
Fragment	Fab fragment
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). Constitutively sumoylated with 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. In quiescent cells, the small amount of FOS present is phosphorylated at Tyr-10 and Tyr-30 by SRC. This Tyr-phosphorylated form is cytosolic. In growing cells, dephosphorylated by PTPN2. Dephosphorylation leads to the association with endoplasmic reticulum membranes and activation of phospholipid synthesis.

Subunit Structure	Heterodimer; with JUN (By similarity). Interacts with MAFB (By similarity). 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 weak even on TGF-beta activation. Interacts with MAFB. Interacts with DSIPI; this interaction inhibits the binding of active AP1 to its target DNA. Interacts with CDS1 and PI4K2A (By similarity).
Similarity	Belongs to the bZIP family. Fos subfamily.
Subcellular Location	Nucleus. Endoplasmic reticulum. Cytoplasm>Cytosol. Note: In quiescent cells, present in very small amounts in the cytosol. Following induction of cell growth, first localizes to the endoplasmic reticulum and only later to the nucleus. Localization at the endoplasmic reticulum requires dephosphorylation at Tyr-10 and Tyr-30.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

At 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)

Staining Rat brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis Fos (Phospho-Ser374) using Insulin treated HeLa whole cell lysates.-/+ means absence or presence of N peptide(1/4 non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-c-Fos antibody	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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4885241
NCBI GeneID	2353
NCBI Accession #	NP_005243.1
NCBI GenBank Nucleotide #	NM_005252.3
UniProt Accession #	P01100; P18849
Molecular Weight	40,695 Da
NCBI Official Full Name	proto-oncogene c-Fos
NCBI Official Synonym Full Names	FBJ murine osteosarcoma viral oncogene homolog

NCBI Official Symbol	FOS
NCBI Official Synonym Symbols	p55; AP-1; C-FOS
NCBI Protein Information	proto-oncogene c-Fos; activator protein 1; cellular oncogene c-fos; G0/G1 switch regulatory protein 7; FBJ murine osteosarcoma viral (v-fos) oncogene homolog (oncogene FOS)
UniProt Protein Name	Proto-oncogene c-Fos
UniProt Gene Name	FOS
UniProt Synonym Gene Names	G0S7
UniProt Entry Name	FOS_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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