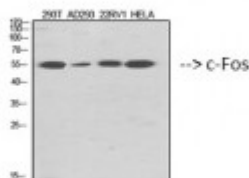


Anti-c-Fos antibody



Western Blot (WB) analysis of 1. 293T 2. AD293 3. 22RV1 4. HeLa using c-Fos Polyclonal Antibody. (STJ92252)



Description

c-Fos is a protein encoded by the FOS gene which is approximately 40,6 kDa. c-Fos is localised to the nucleus, endoplasmic reticulum and cytoplasm. It is involved in activated TLR4 signalling, the IL-2 pathway and toll-like receptor signalling pathways. It is a nuclear phosphoprotein which forms a tight but non-covalently linked complex with the JUN/AP-1 transcription factor. It has a critical function in regulating the development of cells destined to form and maintain the skeleton. c-Fos is expressed at low levels in quiescent cells. Mutations in the FOS gene may result in cerebral hypoxia and myositis ossificans. STJ92252 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of c-Fos protein.

Model	STJ92252
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human c-Fos around the non-phosphorylation site of S374.
Immunogen Region	300-380 aa
Gene ID	2353
Gene Symbol	FOS
Dilution range	WB 1:500-1:2000 IHC 1:100-1:300 ELISA 1:5000
Specificity	c-Fos Polyclonal Antibody detects endogenous levels of c-Fos protein.

Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Proto-oncogene c-Fos Cellular oncogene fos G0/G1 switch regulatory protein 7
Molecular Weight	58 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:3796OMIM:164810
Alternative Names	Proto-oncogene c-Fos Cellular oncogene fos G0/G1 switch regulatory protein 7
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 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.
Cellular Localization	Nucleus. Endoplasmic reticulum. Cytoplasm, cytosol. 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.
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 . 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.

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