abcam

Product datasheet

Recombinant Human c-Fos protein ab56280

2 Images

Description

Product name Recombinant Human c-Fos protein

Purity > 90 % SDS-PAGE.

Affinity purified.

Expression system Baculovirus infected Sf9 cells

Protein length Full length protein

Animal free No

Nature Recombinant

Species Human

Tags GST tag N-Terminus

Specifications

Our <u>Abpromise guarantee</u> covers the use of ab56280 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications Functional Studies

SDS-PAGE Western blot

Form Liquid

Preparation and Storage

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292%

EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

General Info

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.

Sequence similarities

Belongs to the bZIP family. Fos subfamily.

Contains 1 bZIP domain.

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 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.

Cellular localization

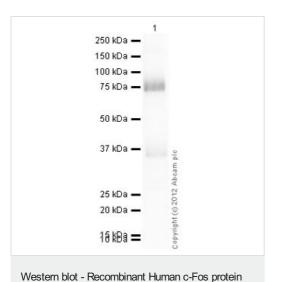
Nucleus.

Images

(ab56280)



SDS-PAGE analysis of ab56280 with molecular weight markers. Approximate molecular weight 78kDa due to presence of a Tag.



Anti-c-Fos antibody - ChIP Grade (<u>ab7963</u>) at 1 μg/ml + Recombinant Human c-Fos protein (ab56280) at 0.1 μg

Secondary

Goat Anti-Rabbit lgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Additional bands at: 75 kDa (possible tagged protein)

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