abcam

Product datasheet

Anti-c-Fos (phospho T232) antibody ab43175

2 References 2 Images

Overview

Product name Anti-c-Fos (phospho T232) antibody

Description Rabbit polyclonal to c-Fos (phospho T232)

Host species Rabbit

Tested applications Suitable for: WB

Species reactivity Reacts with: Human

Predicted to work with: Sheep, Pig, Chimpanzee

Immunogen Synthetic peptide corresponding to Human c-Fos aa 200-300 (phospho T232) conjugated to

keyhole limpet haemocyanin. (Peptide available as **ab43652**)

Positive control This antibody gave a positive signal in the following human whole cell lysates: A431 - EGF

treated, HeLa, Hela - Bleomycin Treated (40U/ml), Hela - Hydroxyurea Treated (48hr, 2uM). This antibody also gave a positive signal against the Full length Recombinant FOS protein (Tagged).

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

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Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab43175 in the following tested applications.

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

Application	Abreviews	Notes
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 95 kDa (predicted molecular weight: 41 kDa).

Target

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.

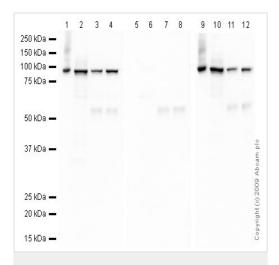
Post-translational modifications

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



Western blot - Anti-c-Fos (phospho T232) antibody (ab43175)

All lanes : Anti-c-Fos (phospho T232) antibody (ab43175) at 1 $\mu g/ml$

Lane 1: A431 (Human epithelial carcinoma cell line) Whole Cell Lysate - EGF treated

Lane 2 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 3: Hela Whole Cell Lysate - Bleomycin Treated (40U/ml)

Lane 4: Hela Whole Cell Lysate - Hydroxyurea Treated (48hr, 2uM)

Lane 5 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate - EGF treated with Human c-Fos (phospho T232) peptide (ab43652) at 1 µg/ml

Lane 6 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate with Human c-Fos (phospho T232) peptide ($\underline{ab43652}$) at 1 $\mu g/ml$

Lane 7: Hela Whole Cell Lysate - Bleomycin Treated (40U/ml) with Human c-Fos (phospho T232) peptide (<u>ab43652</u>) at 1 μg/ml
Lane 8: Hela Whole Cell Lysate - Hydroxyurea Treated (48hr, 2uM) with Human c-Fos (phospho T232) peptide (<u>ab43652</u>) at 1 μg/ml
Lane 9: A431 (Human epithelial carcinoma cell line) Whole Cell
Lysate - EGF treated with Human c-Fos peptide (<u>ab60297</u>) at 1

 μ g/ml **Lane 10 :** HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate with Human c-Fos peptide (<u>ab60297</u>) at 1 μ g/ml

Lane 11 : Hela Whole Cell Lysate - Bleomycin Treated (40U/ml) with Human c-Fos peptide (<u>ab60297</u>) at 1 μ g/ml

Lane 12 : Hela Whole Cell Lysate - Hydroxyurea Treated (48hr, 2uM) with Human c-Fos peptide (ab60297) at 1 μ g/ml

Lysates/proteins at 10 µg per lane.

Secondary

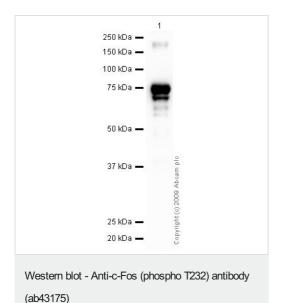
Lanes 1 & 12: Goat polyclonal to Rabbit lgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Lanes 2-11: Goat polyclonal to Rabbit lgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 41 kDa

ab43175 detects a 95 kDa band in western blot. This is consistent with results obtained by other commercially available antibodies to this target, as c-Fos has been reported to dimerise with the c-Jun protein hence migration at a higher molecular weight than predicted.



Anti-c-Fos (phospho T232) antibody (ab43175) at 1 μ g/ml + Recombinant Human c-Fos protein (ab56280) at 0.1 μ g

Secondary

Goat polyclonal to Rabbit lgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 41 kDa **Observed band size:** 78 kDa

<u>ab56280</u>, c-Fos protein (Tagged), has a predicted molecular weight of 78 kDa in SDS-PAGE.

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