abcam

Product datasheet

Anti-c-Fos antibody [EPR20769] - BSA and Azide free ab236039

Recombinant RabMAb

3 Images

Overview

Product name	Anti-c-Fos antibody [EPR20769] - BSA and Azide free
Description	Rabbit monoclonal [EPR20769] to c-Fos - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IP, ICC/IF, WB
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	**This product was produced with the following immunogens:** Recombinant fragment. This information is proprietary to Abcam and/or its suppliers. Recombinant fragment within Human c-Fos aa 200-300. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support team to discuss your requirements. Database link: **P01100** **Run BLAST with** **Run BLAST with**
Positive control	ICC/IF: Serum treated HeLa cells.
General notes	ab236039 is the carrier-free version of **ab214672**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20769
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab236039 in the following tested applications.

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

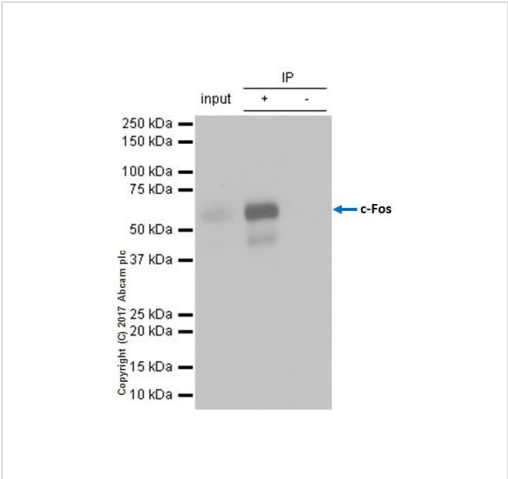
Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 55-60 kDa (predicted molecular weight: 40 kDa).

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	Phosphorylated in the C-terminal upon stimulation by nerve growth factor (NGF) and epidermal

modifications	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

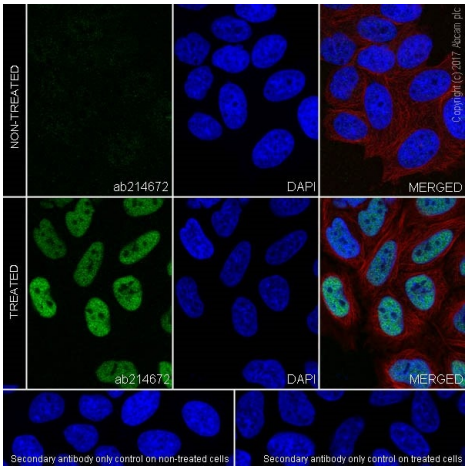


Immunoprecipitation - Anti-c-Fos antibody [EPR20769] - BSA and Azide free (ab236039)

c-Fos was immunoprecipitated from 0.35 mg of HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with **ab214672** at 1/40 dilution. Western blot was performed from the immunoprecipitate using **ab214672** at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at a 1/1000 diliution.
Lane 1: HeLa (human epithelial cell line from cervix adenocarcinoma) grown in serum free medium for 36 hours, followed by addition of 20%FBS for 2 hours, whole cell lysate, 10 µg (Input).
Lane 2: **ab214672** IP in HeLa grown in serum free medium for 36 hours, followed by addition of 20% FBS for 2 hours, whole cell lysate.
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab214672** in HeLa grown in serum free medium for 36 hours, followed by addition of 20% FBS for 2 hours, whole cell lysate.
Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 1 second.

The observed lower band is a proteasomal degradation fragment (PMID: 9737957).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214672**).



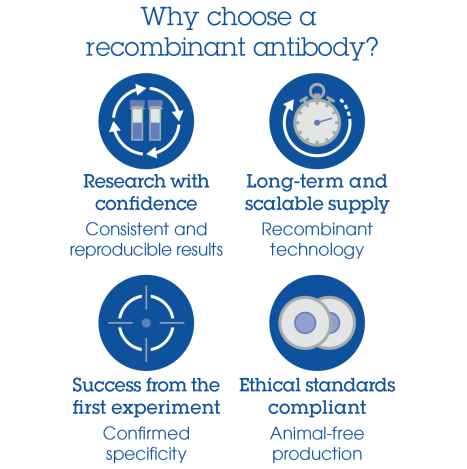
Immunocytochemistry/ Immunofluorescence - Anti-c-Fos antibody [EPR20769] - BSA and Azide free (ab236039)

Immunofluorescent analysis of 4% paraformaldehyde-fixed. 0.1% Triton X-100 permeabilized serum treated and non-treated HeLa (human cervix adenocarcinoma epithelial cell) cells labeling c-Fos with **ab214672** at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing weakly nuclear staining on HeLa cells grown in serum free medium for 36 hours. Expression of c-Fos increased in HeLa cells grown in serum free medium for 36 hours followed by addition of 20% FBS for 2 hours.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab214672**).



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