abcam

ab278103

Anti-FRA1 antibody [EPR23767-177] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR23767-177
Purification technique	Affinity purification Protein A
Concentration	1.04 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information FOSL1

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab278103 is the carrier-free version of ab252421.

Patented technology

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

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	FRA1 also known as FOS-like antigen 1 (FOSL1) is a transcription factor and a part of the AP-1 complex. It weighs about 45 kDa. This protein regulates gene expression linked to cell proliferation differentiation and survival. FRA1 shows expression in various tissues particularly in those undergoing rapid growth and development. The protein mediates immediate early gene response to diverse stimuli.

Biological function summary	In various settings FRA1 serves a role in regulating cellular responses to external signals. It forms a heterodimer with members of the JUN family to create the transcription factor AP-1 complex active in cell cycle regulation and signal transduction. This complex modulates expression of genes involved in processes like hematopoiesis and angiogenesis demonstrating its importance in physiological development and maintenance.
Pathways	The involvement of FRA1 in cellular signaling cascades stands out notably in the MAPK/ERK pathway. This pathway plays a significant role in cell growth and differentiation with FRA1 acting alongside other proteins like ERK to relay signals from surface receptors to the nucleus. Also FRA1 influences the Wnt signaling pathway which impacts cell fate decisions and embryonic development via its interactions and regulatory functions.
Associated diseases and disorders	Researchers associate FRA1 expression with certain cancers including lung and breast cancer due to its role in controlling cell proliferation and invasion. In cancer FRA1 interacts with proteins like JUN which partner in transforming normal cells into malignant ones through the dysregulation of AP-1 activity. Its role in metastasis highlights FRA1 as a potential biomarker or therapeutic target in oncology.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

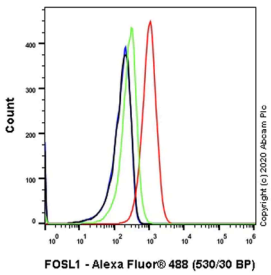
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

5 product images

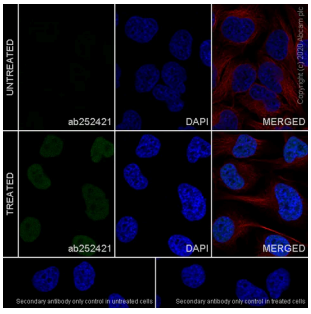


Flow Cytometry (Intracellular) - Anti-FRA1 antibody [EPR23767-177] - BSA and Azide free (ab278103)

FRA1 Flow Cytometry (Intracellular) staining using rabbit Anti-FRA1 antibody

This data was developed using ab252421, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HeLa (human cervix adenocarcinoma epithelial cell) starved for 24 hours then treated with 100 ng/ml TPA for 4 hours (Red) /Untreated control (Green) cells labelling FRA1 with ab252421 at 1/500 dilution (0.1ug) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

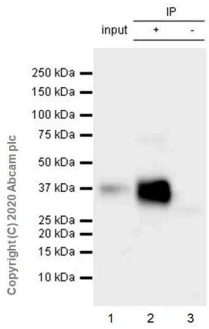


Immunocytochemistry/ Immunofluorescence - Anti-FRA1 antibody [EPR23767-177] - BSA and Azide free (ab278103)

FRA1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-FRA1 antibody

This data was developed using ab252421, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa cells labelling FRA1 with ab252421 at 1/500 (0.918 ug/ml) dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). The expression of FRA1 proteins is induced by TPA treatment (PMID: 13679379). Confocal image showing nuclear staining in HeLa cell line after starvation 24 hours, then treatment with Phorbol-12-myristate-13-acetate for 4h is observed. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Immunoprecipitation - Anti-FRA1 antibody [EPR23767-177] - BSA and Azide free (ab278103)

This data was developed using ab252421, the same antibody clone in a different buffer formulation.
FRA1 was immunoprecipitated from 0.35 mg HeLa (human cervix adenocarcinoma epithelial cell) staved for 24 hours then treated with 100 ng/mL TPA for 4 hours, whole cell lysate with ab252421 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab252421 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: HeLa (human cervix adenocarcinoma epithelial cell) staved for 24 hours then treated with 100 ng/mL TPA for 4 hours, whole cell lysate 10 ug

Lane 2: ab252421 IP in HeLa staved for 24 hours then treated with 100 ng/mL TPA for 4 hours whole cell lysate

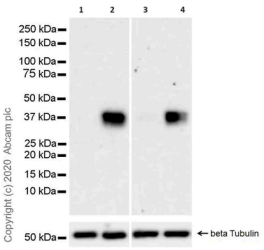
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab252421 in HeLa staved for 24 hours then treated with 100 ng/mL TPA for 4 hours whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 15 seconds.
All lanes:
Immunoprecipitation - Anti-FRA1 antibody [EPR23767-177] (ab252421)

Predicted band size: 29 kDa

Observed band size: 40 kDa



Western blot - Anti-FRA1 antibody [EPR23767-177] - BSA and Azide free (ab278103)

FRA1 Western blot staining using rabbit Anti-FRA1 antibody

This data was developed using ab252421, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID:13679379).

The expression of FRA1 proteins is induced by TPA treatment (PMID: 13679379).

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-FRA1 antibody [EPR23767-177] (ab252421) at 1/1000 dilution

Lane 1:
HeLa (human cervix adenocarcinoma epithelial cell) staved for 24 hours, whole cell lysate at 20 µg

Lane 2:
HeLa staved for 24 hours then treated with 100 ng/mL TPA (ab120297) for 4 hours, whole cell lysate at 20 µg

Lane 3:
NIH/3T3 (mouse embryonic fibroblast) staved for 2 hours, whole cell lysate at 20 µg

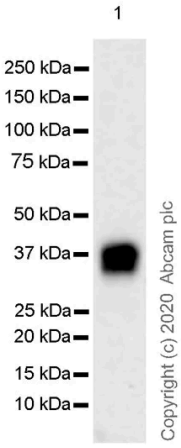
Lane 4:
NIH/3T3 staved for 2 hours then treated with 100 ng/mL TPA (ab120297) for 4 hours, whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 29 kDa

Observed band size: 40 kDa



Western blot - Anti-FRA1 antibody [EPR23767-177] - BSA and Azide free (ab278103)

This data was developed using ab252421, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

All lanes:
Western blot - Anti-FRA1 antibody [EPR23767-177] (ab252421) at 1/1000 dilution

All lanes:
MDA-MB-231 (human breast adenocarcinoma epithelial cell) whole cell lysate at 40 µg

Secondary

All lanes:
VeriBlot for IP secondary antibody(HRP)(ab131366) at 1/1000 dilution

Predicted band size: 29 kDa

Observed band size: 40 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.