abcam

ab248311

Anti-FKBP38 antibody [EPR7441(2)] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR7441(2)
Purification technique	Affinity purification

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information FKBP8

Function Constitutively inactive PPiase, which becomes active when bound to calmodulin and calcium. Seems to act as a chaperone for BCL2, targets it to the mitochondria and modulates its phosphorylation state. The BCL2/FKBP8/calmodulin/calcium complex probably interferes with the binding of BCL2 to its targets. The active

form of FKBP8 may therefore play a role in the regulation of apoptosis. Involved in the inhibition of viral infection by influenza A viruses (IAV) (PubMed:28169297).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab248311 is the carrier-free version of ab129113.

Species reactivity

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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	FKBP38 also known as FK506 binding protein 8 is a member of the immunophilin protein family characterized by peptidyl-prolyl cis-trans isomerase activity. This protein weighs approximately 42 kDa and plays significant roles in various cellular processes. FKBP38 is mainly expressed in the mitochondria and endoplasmic reticulum where it regulates multiple signaling pathways through its interactions with other complex proteins.
Biological function summary	FKBP38 regulates apoptosis and cell survival mechanisms. It binds to and inhibits the anti-apoptotic proteins Bcl-2 and Bcl-xL forming a complex that influences mitochondrial integrity. This interaction is essential for maintaining cellular homeostasis and responding to stress signals. FKBP38's presence in these complexes highlights its role as an important modulator of cell death pathways contributing to balanced cell proliferation and survival.
Pathways	FKBP38 significantly affects the mTOR signaling pathway and the intrinsic apoptosis pathway. It interacts with important proteins such as Bcl-2 Bcl-xL and mTORC1 influencing cellular growth and apoptosis. FKBP38's regulation of mTOR signaling impacts protein synthesis cell growth and autophagy making it a critical factor in maintaining cellular metabolic balance.
Associated diseases and disorders	FKBP38 has links to cancer and neurodegenerative diseases. Its modulation of apoptosis and cell proliferation relates to tumor growth and cancer progression where its interaction with Bcl-2 proteins becomes relevant. Additionally FKBP38's role in neurodegenerative diseases ties to its regulation of mitochondrial function where dysregulation leads to neuronal cell death. Understanding FKBP38's connections with these diseases helps in formulating potential therapeutic strategies targeting these important proteins and pathways.

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

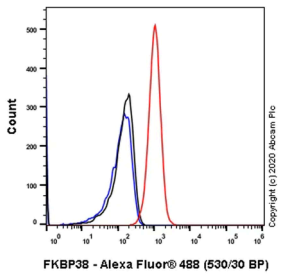
We do not recommend this combination. It is not covered by our product promise.

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.

4 product images

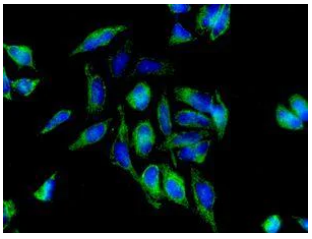


Flow Cytometry (Intracellular) - Anti-FKBP38 antibody [EPR7441(2)] - BSA and Azide free (ab248311)

FKBP38 Flow Cytometry (Intracellular) staining using rabbit Anti-FKBP38 antibody

This data was developed using ab129113, the same antibody clone in a different buffer formulation.

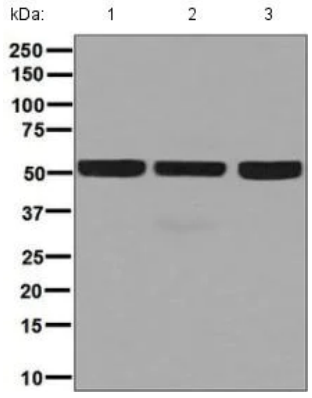
Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling FKBP38 with ab129113 at 1/20 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-FKBP38 antibody [EPR7441(2)] - BSA and Azide free (ab248311)

FKBP38 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-FKBP38 antibody

This data was developed using ab129113, the same antibody clone in a different buffer formulation.
ab129113, at 1/100 dilution, staining FKBP38 in HeLa cells by Immunofluorescence.



Western blot - Anti-FKBP38 antibody [EPR7441(2)] - BSA and Azide free (ab248311)

FKBP38 Western blot staining using rabbit Anti-FKBP38 antibody

This data was developed using ab129113, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-FKBP38 antibody [EPR7441(2)] (ab129113) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

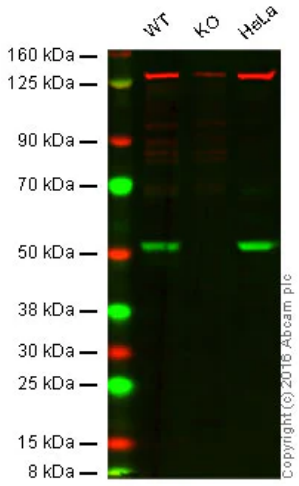
Lane 2:
Jurkat cell lysate at 10 µg

Lane 3:
293T cell lysate at 10 µg

Secondary

All lanes:
Goat anti-Rabbit HRP at 1/2000 dilution

Predicted band size: 45 kDa



Western blot - Anti-FKBP38 antibody [EPR7441(2)] - BSA and Azide free (ab248311)

FKBP38 Western blot staining using rabbit Anti-FKBP38 antibody

This data was developed using ab129113, the same antibody clone in a different buffer formulation.
Lane 1: Wild-type HAP1 cell lysate (20 µg)

Lane 2: FKBP38 knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lanes 1 - 3: Merged signal (red and green). Green - ab129113 observed at 51 kDa. Red - loading control, ab18058, observed at 124 kDa.

ab129113 was shown to specifically react with FKBP38 when FKBP38 knockout samples were used. Wild-type and FKBP38 knockout samples were subjected to SDS-PAGE. ab129113 and ab18058 (loading control to Vinculin) were diluted 1/1000 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-FKBP38 antibody [EPR7441(2)] (ab129113)

Predicted band size: 45 kDa

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