abcam

ab129184

Anti-BANF1/BAF antibody [EPR7668]

Anti-BANF1/BAF antibody [EPR7668] (ab129184) is a rabbit monoclonal antibody detecting BANF1/BAF in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Dog, Human, Mouse**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR7668
Purification technique	Affinity purification Protein A
Specificity	The mouse recommendation is based on the WB results. We do not guarantee IHC-P for mouse.
Dissociation constant	2.18 x 10^{-10} M
Concentration	0.79 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

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

IP

Not recommended

Species	Mouse, Human, Dog
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Species	Dog
Dilution info	1/1000 - 1/10000
Notes	-

Expected

Species	Mouse

Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/100
Notes	-

Species	Human
Dilution info	1/100
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/80
Notes	For unpurified use at 1/200

Expected

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

Target data

See full target information BANF1

Function	Non-specific DNA-binding protein that plays key roles in mitotic nuclear reassembly, chromatin organization, DNA damage response, gene expression and intrinsic immunity against foreign DNA (PubMed:10908652, PubMed:11792822, PubMed:12163470, PubMed:18005698, PubMed:25991860, PubMed:28841419, PubMed:31796734, PubMed:32792394). Contains two non-specific double-stranded DNA (dsDNA)-binding sites which promote DNA cross-bridging (PubMed:9465049). Plays a key role in nuclear membrane reformation at the end of mitosis by driving formation of a single nucleus in a spindle-independent manner (PubMed:28841419). Transiently cross-bridges anaphase chromosomes via its ability to bridge distant DNA sites, leading to the formation of a dense chromatin network at the chromosome ensemble surface that limits membranes to the surface (PubMed:28841419). Also acts as a negative regulator of innate immune activation by restricting CGAS activity toward self-DNA upon acute loss of nuclear membrane integrity (PubMed:32792394). Outcompetes CGAS for DNA-binding, thereby preventing CGAS activation and subsequent damaging autoinflammatory responses (PubMed:32792394). Also involved in DNA damage response: interacts with PARP1 in response to oxidative stress, thereby inhibiting the ADP-ribosyltransferase activity of PARP1 (PubMed:31796734). Involved in the recognition of exogenous dsDNA in the cytosol: associates with exogenous dsDNA immediately after its appearance in the cytosol at endosome breakdown and is required to avoid autophagy (PubMed:25991860). In case of poxvirus infection, has an antiviral activity by blocking viral DNA replication (PubMed:18005698). (Microbial infection) Exploited by retroviruses for inhibiting self-destructing autointegration of retroviral DNA, thereby promoting integration of viral DNA into the host chromosome (PubMed:11005805, PubMed:16680152, PubMed:9465049). EMD and BAF are cooperative cofactors of HIV-1 infection (PubMed:16680152). Association of EMD with the viral DNA requires the presence of BAF and viral integrase (PubMed:16680152). The association of viral DNA with chromatin requires the presence of BAF and EMD (PubMed:16680152).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?

Anti-BANF1/BAF antibody [EPR7668] (ab129184) is a rabbit recombinant monoclonal antibody and is validated for use

in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Dog, Human, Mouse samples.

What is the molecular weight of BANF1/BAF?
Anti-BANF1/BAF [EPR7668] (ab129184) specifically detects a band for BANF1/BAF (UniProt: O75531) at a molecular weight of 10kDa.

Trusted by the scientific community
Anti-BANF1/BAF [EPR7668] (ab129184) was first used in a scientific publication in 2012 and has been cited over 10 times in peer-reviewed journals.

Reviewed by scientists
Anti-BANF1/BAF [EPR7668] (ab129184) has over 5 independent reviews from customers.

Other related products
We have a range of other formats of antibody clone [EPR7668] also available for your convenience: ab129184, Alexa Fluor® 594 - ab208532, Alexa Fluor® 647 - ab208621, Carrier free - ab240953, PE - ab303095, APC - ab303096, HRP - ab303097, Alkaline Phosphatase - ab308823, Alexa Fluor® 488 - ab309764, Alexa Fluor® 555 - ab312084, Alexa Fluor® 568 - ab312563, Alexa Fluor® 750 - ab321034

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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.

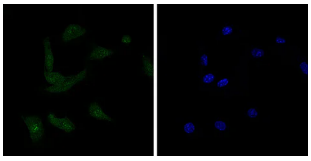
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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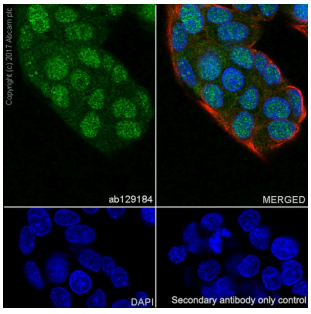
11 product images



Immunocytochemistry/ Immunofluorescence - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

BANF1/BAF Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-BANF1/BAF antibody

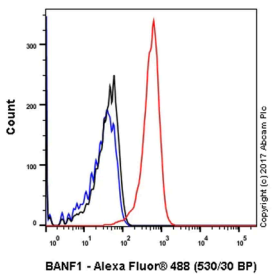
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervix adenocarcinoma) cells labeling BANF1/BAF with ab129184 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/400 dilution (green). Confocal image showing mainly nuclear with weakly cytoplasmic staining on Hela cell line. The nuclear counterstain is DAPI (blue).



Immunocytochemistry/ Immunofluorescence - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

BANF1/BAF Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-BANF1/BAF antibody

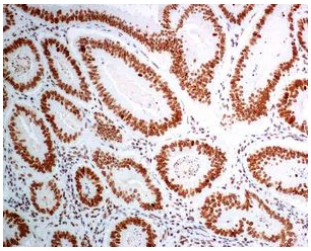
Immunocytochemistry/ Immunofluorescence analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling BANF1/BAF with Purified ab129184 at 1:100 dilution (7.8 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

BANF1/BAF Flow Cytometry (Intracellular) staining using rabbit Anti-BANF1/BAF antibody

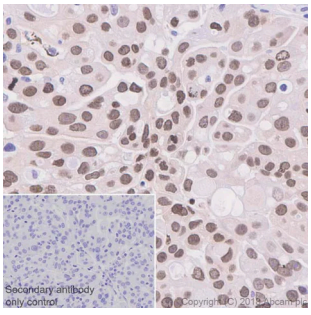
Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling BANF1/BAF (red) with ab129184 at a 1/200 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluorr® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (ab172730). Blue (unlabeled control) - Cells without incubation with primary and secondary antibodies.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

BANF1/BAF Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BANF1/BAF antibody

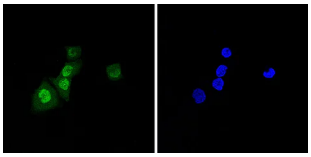
ab129184, at a 1/100 dilution, staining BANF1/BAF in paraffin embedded Human colonic carcinoma tissue by Immunohistochemistry.
Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

BANF1/BAF Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-BANF1/BAF antibody

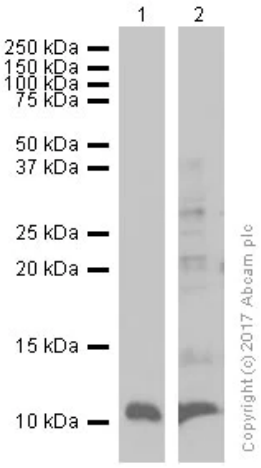
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human ovarian carcinoma tissue sections labeling BANF1/BAF with Purified ab129184 at 1:100 dilution (0.78 µg/ml). Heat mediated antigen retrieval was performed using Citrate buffer, pH 6.0. ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunocytochemistry/ Immunofluorescence - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

BANF1/BAF Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-BANF1/BAF antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 (Mouse embryo fibroblast cells)cells labeling BANF1/BAF with ab129184 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/400 dilution (green). Confocal image showing mainly nuclear with cytoplasmic staining on NIH/3T3 cell line. The nuclear counterstain is DAPI (blue).



Western blot - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

Blocking Buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-BANF1/BAF antibody [EPR7668] (ab129184) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 20 µg

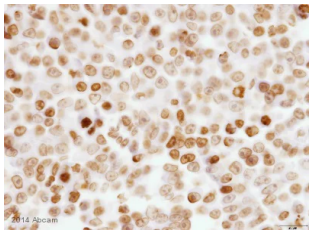
Lane 2:
HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 10 kDa

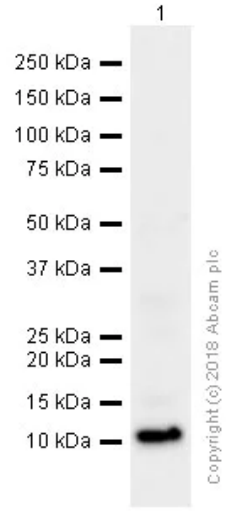
Observed band size: 10 kDa



This image is courtesy of an anonymous customer review

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

ab129184 staining BANF1/BAF in MDCK (Canine kidney cell line) cell pellets in paraffin by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Cell pellets were fixed with paraformaldehyde, permeabilized with Tween-20 and blocked with 1% serum for 2 hours at room temperature; antigen retrieval was by heat mediation in Tris/EDTA pH 9. Samples were incubated with primary antibody (1/100 in 1% BSA + 1% FBS) for 16 hours. An undiluted HRP-conjugated goat anti-rabbit IgG polyclonal was used as the secondary antibody.



Western blot - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

Blocking Buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-BANF1/BAF antibody [EPR7668] (ab129184) at 1/5000 dilution

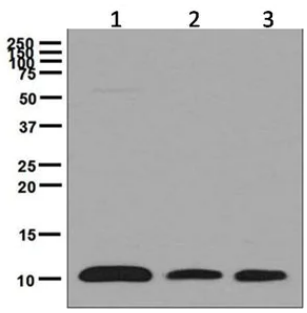
All lanes:
MDCK (NBL-2) (Dog kidney epithelial cell) whole cell lysates at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 10 kDa

Observed band size: 10 kDa



Western blot - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

All lanes:
Western blot - Anti-BANF1/BAF antibody [EPR7668] (ab129184) at 1/1000 dilution

Lane 1:
HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysates at 10 µg

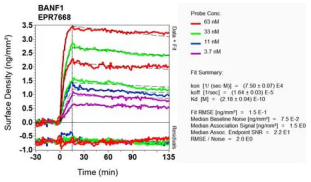
Lane 2:
HepG2 (Human liver hepatocellular carcinoma cell line) cell lysates at 10 µg

Lane 3:
HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) cell lysates at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 10 kDa



OI-RD Scanning - Anti-BANF1/BAF antibody [EPR7668] (ab129184)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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