abcam

Product datasheet

Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free ab240953

Recombinant RabMAb

9 Images

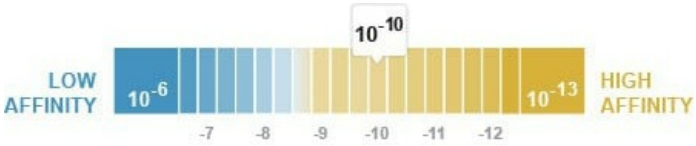
Overview

Product name	Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free
Description	Rabbit monoclonal [EPR7668] to BANF1/BAF - BSA and Azide free
Host species	Rabbit
Specificity	The mouse recommendation is based on the WB results. We do not guarantee IHC-P for mouse.
Tested applications	**Suitable for:** IHC-P, ICC/IF, WB, Flow Cyt (Intra) **Unsuitable for:** IP
Species reactivity	**Reacts with:** Mouse, Dog, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	ICC/IF: NIH/3T3 cells. Flow Cyt (intra): SH-SY5Y and NIH/3T3 cells. WB: PC-12, Jurkat, U-87 MG, HeLa and NIH/3T3 cell lysate. IHC-P: Human astrocytoma, colon carcinoma, and glioma tissues.
General notes	ab240953 is the carrier-free version of **ab129184**. 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.
Dissociation constant (K_D)	$K_D = 2.18 \times 10^{-10}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7668
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab240953 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
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 10 kDa.
Flow Cyt (Intra)		Use at an assay dependent concentration.

Application notes Is unsuitable for IP.

Target

Function Plays fundamental roles in nuclear assembly, chromatin organization, gene expression and gonad

development. May potently compress chromatin structure and be involved in membrane recruitment and chromatin decondensation during nuclear assembly. Contains 2 non-specific dsDNA-binding sites which may promote DNA cross-bridging. Exploited by retroviruses for inhibiting self-destructing autointegration of retroviral DNA, thereby promoting integration of viral DNA into the host chromosome. EMD and BAF are cooperative cofactors of HIV-1 infection. Association of EMD with the viral DNA requires the presence of BAF and viral integrase. The association of viral DNA with chromatin requires the presence of BAF and EMD.

Tissue specificity

Widely expressed. Expressed in colon, brain, heart, kidney, liver, lung, ovary, pancreas, placenta, prostate, skeletal muscle, small intestine, spleen and testis. Not detected in thymus and peripheral blood leukocytes.

Sequence similarities

Belongs to the BAF family.

Domain

Has a helix-hairpin-helix (HhH) structural motif conserved among proteins that bind non-specifically to DNA.
LEM domain proteins bind centrally on the BAF dimer, whereas DNA binds to the left and right sides.

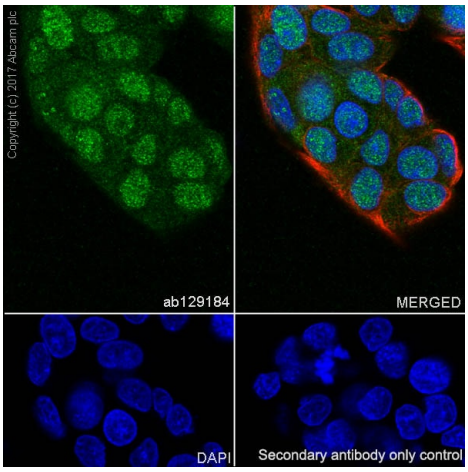
Post-translational modifications

Partially phosphorylated on serine. Ser-4 phosphorylation may block BAF ability to promote EMD binding to lamins in vitro. Non phosphorylated BAF seems to enhances binding between EMD and LMNA.

Cellular localization

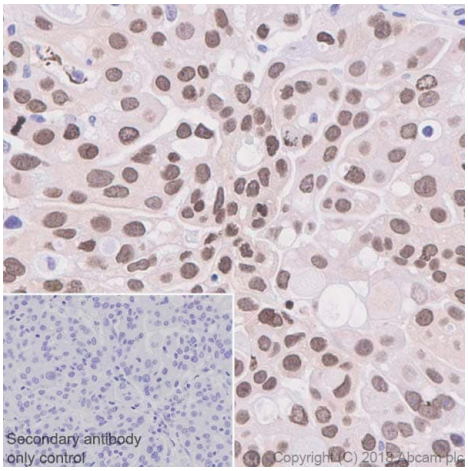
Nucleus. Cytoplasm. Chromosome. Significantly enriched at the nuclear inner membrane, diffusely throughout the nucleus during interphase and concentrated at the chromosomes during the M-phase. May be included in HIV-1 virions via its interaction with viral GAG polyprotein.

Images



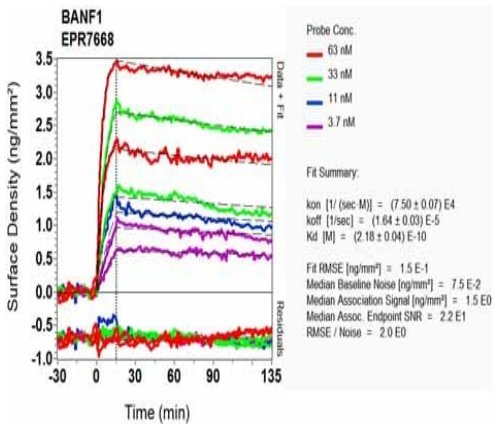
Immunocytochemistry/ Immunofluorescence - Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free (ab240953)

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. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab129184**)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free (ab240953)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab129184**)



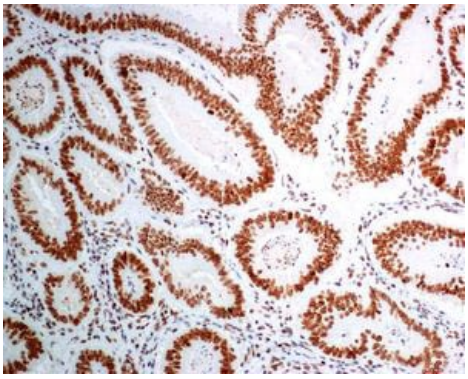
OI-RD Scanning - Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free (ab240953)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab129184**)

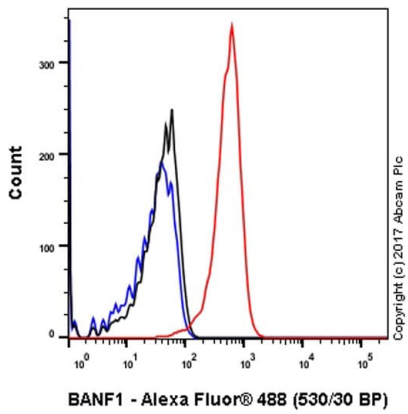


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free (ab240953)

ab129184, at a 1/100 dilution, staining BANF1/BAF in paraffin embedded human colonic carcinoma tissue by Immunohistochemistry.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab129184**)

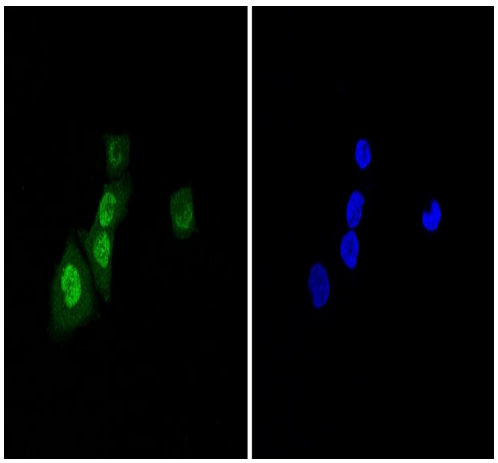
Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free (ab240953)

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 Fluor® 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.

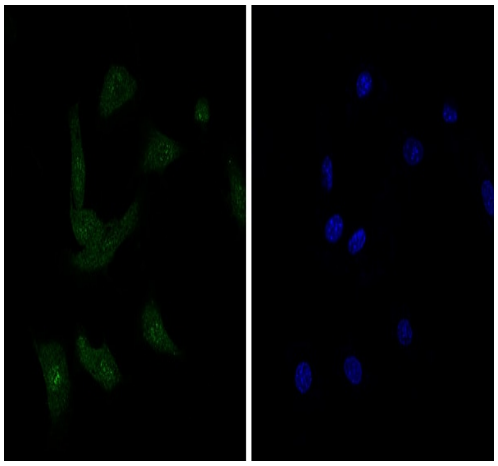
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab129184**)



Immunocytochemistry/ Immunofluorescence - Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free (ab240953)

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).

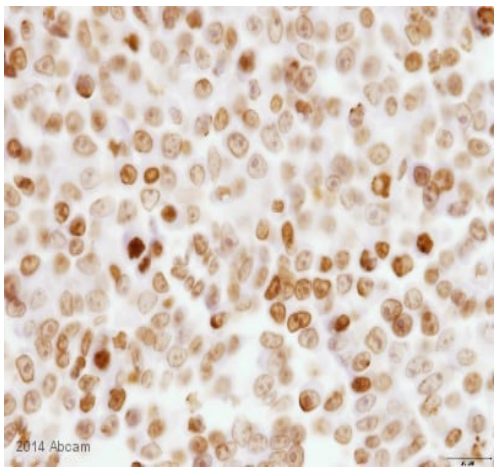
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab129184**)



Immunocytochemistry/ Immunofluorescence - Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free (ab240953)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab129184**)

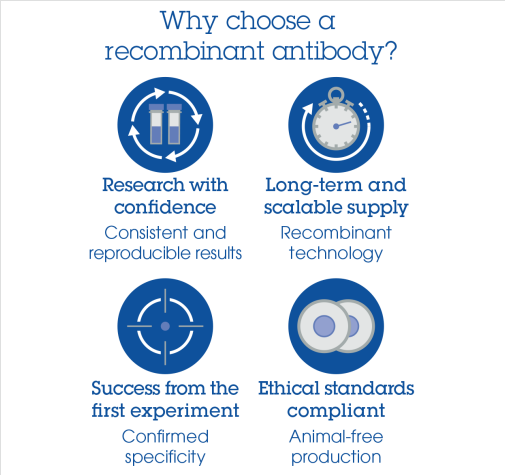


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BANF1/BAF antibody [EPR7668] - BSA and Azide free (ab240953)

This image is courtesy of an anonymous Abreview

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab129184**)



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