abcam

Product datasheet

Anti-BANF1 antibody ab88464

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Overview

Product name	Anti-BANF1 antibody
Description	Mouse monoclonal to BANF1
Host species	Mouse
Tested applications	**Suitable for:** WB, ELISA, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse
Immunogen	Recombinant full length BANF1 protein (Human) aas 1-90, with a 26 kDa tag, AAH05942.
Positive control	Recombinant protein (immunogen), Jurkat cell lysate and HeLa cells.
General notes	Abcam is committed to meeting high standards of ethical manufacturing and has decided to discontinue this product by June 2019 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause. We would recommend antibody ab129184 as a replacement.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: None Constituents: 1X PBS, pH 7.2
Purity	Protein A purified
Clonality	Monoclonal
Isotype	IgG2a
Light chain type	kappa

Applications

Our Abpromise guarantee covers the use of **ab88464** 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
WB	★★★★☆	Use a concentration of 1 - 5 µg/ml. Predicted molecular weight: 10 kDa.
ELISA		Use at an assay dependent concentration.
ICC/IF		Use a concentration of 10 µg/ml.
Flow Cyt		1/50. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

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.

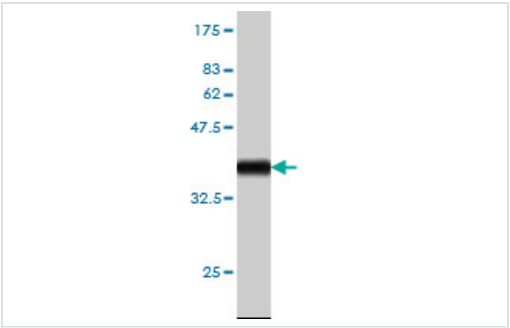
Post-translational modifications

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



Western blot - Anti-BANF1 antibody (ab88464)

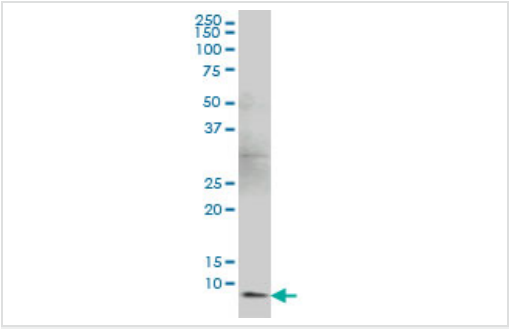
Anti-BANF1 antibody (ab88464) at 5 µg/ml + recombinant protein (immunogen) at 0.2 µg

Secondary

Goat anti-mouse IgG (H&L)-HRP conjugate at 1/5000 dilution

Predicted band size: 10 kDa
Observed band size: 36 kDa

The observed band size may not correspond to the predicted protein molecular weight as the immunogen (recombinant fragment) was used for the test lane.



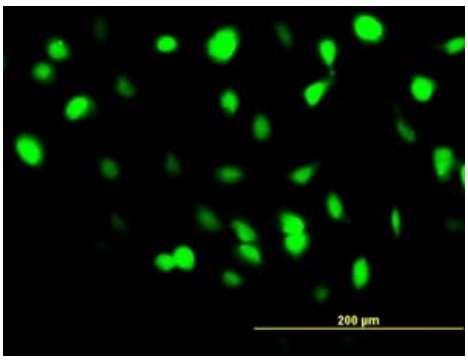
Western blot - Anti-BANF1 antibody (ab88464)

Anti-BANF1 antibody (ab88464) at 5 µg/ml + Jurkat cell lysate at 25 µg

Secondary

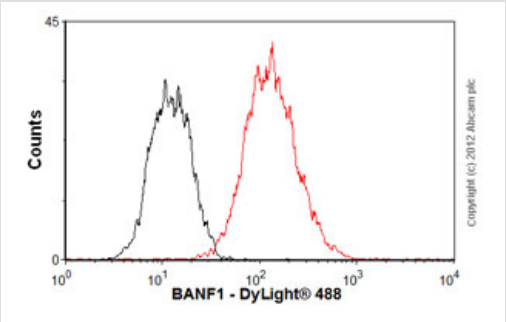
Goat anti-mouse IgG (H&L)-HRP conjugate at 1/2500 dilution

Predicted band size: 10 kDa
Observed band size: 8 kDa



Immunocytochemistry/ Immunofluorescence - Anti-BANF1 antibody (ab88464)

ab88464 at 10µg/ml staining BANF1 in Hela cells.



Flow Cytometry - Anti-BANF1 antibody (ab88464)

Overlay histogram showing HepG2 cells stained with ab88464 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab88464, 1/50 dilution) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

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