

BAF (FL-89): sc-33787

BACKGROUND

Barrier-to-autointegration factor (BAF) binds non-specifically to double stranded DNA, possibly to play a role in tissue- or cell type-specific gene expression by interacting with different homeodomain transcription factors. BAF compresses chromatin structure and interacts with the LEM domain of nuclear proteins to play a crucial role in membrane recruitment and chromatin decondensation during nuclear assembly. Additionally, retroviruses like HIV-1 incorporate BAF from host cells into preintegration complexes (PICs) to prevent autointegration of retroviral DNA and thereby promote integration of retroviral DNA into the host chromosome.

REFERENCES

1. Cai, M., et al. 1998. Solution structure of the cellular factor BAF responsible for protecting retroviral DNA from autointegration. *Nat. Struct. Biol.* 5: 903-909.
2. Lee, K.K., et al. 2001. Distinct functional domains in emerin bind lamin A and DNA-bridging protein BAF. *J. Cell Sci.* 114: 4567-4573.
3. Haraguchi, T., et al. 2001. BAF is required for emerin assembly into the reforming nuclear envelope. *J. Cell Sci.* 114: 4575-4585.
4. Wang, X., et al. 2002. Barrier to autointegration factor interacts with the cone-rod homeobox and represses its transactivation function. *J. Biol. Chem.* 277: 43288-43300.
5. Segura-Totten, M., et al. 2002. Barrier-to-autointegration factor: major roles in chromatin decondensation and nuclear assembly. *J. Cell Biol.* 158: 475-485.
6. Mansharamani, M., et al. 2003. Barrier-to-autointegration factor BAF binds p55 G_α and matrix and is a host component of human immunodeficiency virus type 1 virions. *J. Virol.* 77: 13084-13092.

CHROMOSOMAL LOCATION

Genetic locus: BANF1 (human) mapping to 11q13.1; Banf1 (mouse) mapping to 19 A.

SOURCE

BAF (FL-89) is a rabbit polyclonal antibody raised against amino acids 1-89 representing full length barrier-to-autointegration factor of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-33787 X, 200 µg/0.1 ml.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

BAF (FL-89) is recommended for detection of barrier-to-autointegration factor of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BAF (FL-89) is also recommended for detection of barrier-to-autointegration factor in additional species, including equine, canine, bovine and porcine.

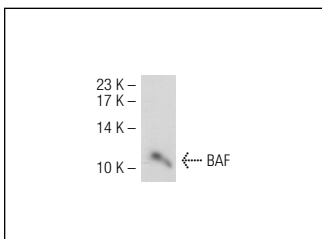
Suitable for use as control antibody for BAF siRNA (h): sc-43627, BAF siRNA (m): sc-44804, BAF shRNA Plasmid (h): sc-43627-SH, BAF shRNA Plasmid (m): sc-44804-SH, BAF shRNA (h) Lentiviral Particles: sc-43627-V and BAF shRNA (m) Lentiviral Particles: sc-44804-V.

BAF (FL-89) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

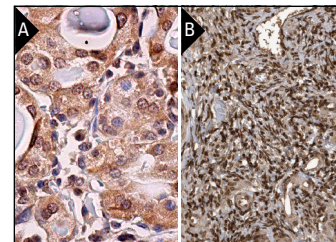
Molecular Weight of BAF: 10 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or HeLa nuclear extract: sc-2120.

DATA



BAF (FL-89): sc-33787. Western blot analysis of BAF expression in HeLa nuclear extract.



BAF (FL-89): sc-33787. Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear and cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing nuclear staining of stromal cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

1. Cenni, V., et al. 2011. Autophagic degradation of farnesylated prelamin A as a therapeutic approach to lamin-linked progeria. *Eur. J. Histochem.* 55: e36.
2. Capanni, C., et al. 2012. Familial partial lipodystrophy, mandibuloacral dysplasia and restrictive dermopathy feature barrier-to-autointegration factor (BAF) nuclear redistribution. *Cell Cycle* 11: 3568-3577.

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Try **BAF (A-11): sc-166324**, our highly recommended monoclonal alternative to BAF (FL-89).