



BAF (ZZ-52): sc-100978

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.
3. 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.
2. 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 Gag and matrix and is a host component of human immunodeficiency virus type 1 virions. *J. Virol.* 77: 13084-13092.
7. Forne, I., et al. 2003. Identification of the autoantigen HB as the barrier-to-autointegration factor. *J. Biol. Chem.* 278: 50641-50644.

CHROMOSOMAL LOCATION

Genetic locus: BANF1 (human) mapping to 11q13.1.

SOURCE

BAF (ZZ-52) is a mouse monoclonal antibody raised against recombinant BAF of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

BAF (ZZ-52) is recommended for detection of barrier-to-autointegration factor of 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).

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

Molecular Weight of BAF: 10 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

RESEARCH USE

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