SANTA CRUZ BIOTECHNOLOGY, INC.

BAF (N-16): sc-27836

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 $G_{\alpha\gamma}$ 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; Banf1 (mouse) mapping to 19 A.

SOURCE

BAF (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of 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-27836 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-27836 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

BAF (N-16) 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), immunofluorescence (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 (N-16) 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 (N-16) 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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.