SANTA CRUZ BIOTECHNOLOGY, INC.

BAF53 (N-19): sc-47808

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The SWI/SNF complex regulates gene expression via ATP-dependent chromatin remodeling. Brm (SNF2-α), Brg-1 (SNF2-β), Ini1 (integrase interactor 1, SNF5), BAF53 (ARPnβ), BAF57, BAF155 (SRG3) and BAF170 make up the functional core. BAF53 homologs from yeast to humans contain a conserved N-terminal motif, which contains residues at Ser 2 and Tyr 6, which play important roles in BAF53 activity. The BAF53 protein shuttles between the nucleus and cytoplasm. BAF53 also forms a complex with TIP49 and TIP48, which mediates c-Myc oncogenic activity.

CHROMOSOMAL LOCATION

Genetic locus: ACTL6A (human) mapping to 3q26.33; Actl6a (mouse) mapping to 3 A3.

SOURCE

BAF53 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BAF53 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-47808 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-47808 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

BAF53 (N-19) is recommended for detection of BAF53 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); may cross-react with ACTL6B.

Suitable for use as control antibody for BAF53 siRNA (h): sc-60239, BAF53 siRNA (m): sc-60240, BAF53 shRNA Plasmid (h): sc-60239-SH, BAF53 shRNA Plasmid (m): sc-60240-SH, BAF53 shRNA (h) Lentiviral Particles: sc-60239-V and BAF53 shRNA (m) Lentiviral Particles: sc-60240-V.

BAF53 (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

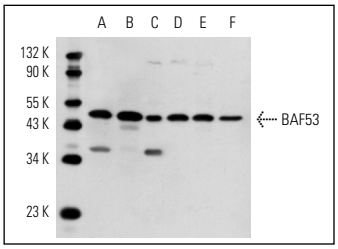
Molecular Weight of BAF53: 45 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, SW480 nuclear extract: sc-2155 or HeLa nuclear extract: sc-2120.

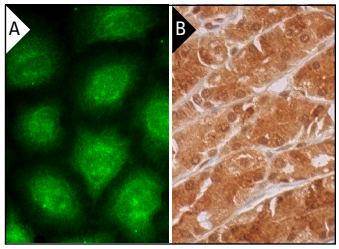
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



BAF53 (N-19): sc-47808. Western blot analysis of BAF53 expression in HeLa (**A**), Jurkat (**B**), SW480 (**C**), NIH/3T3 (**D**) and Sol8 (**E**) nuclear extracts and rat testis tissue extract (**F**).



BAF53 (N-19): sc-47808. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Van Duyne, R., et al. 2011. Varying modulation of HIV-1 LTR activity by Baf complexes. J. Mol. Biol. 411: 581-596.
2. Makarov, E.M., et al. 2012. Functional mammalian spliceosomal complex E contains SMN complex proteins in addition to U1 and U2 snRNPs. Nucleic Acids Res. 40: 2639-2652.

RESEARCH USE

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

PROTOCOLS

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