SANTA CRUZ BIOTECHNOLOGY, INC.

BAF53 (C-13): sc-47805

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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.

REFERENCES

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3. Ohfuchi, E., Nishimori, K. and Harata, M. 2002. Alternative splicing products of the gene for a protein, hArpNβ/BAF53, that encode a protein isoform, hArpNβS, in the cytoplasm. Biosci. Biotechnol. Biochem. 66: 1740-1743.
4. Park, J., Wood, M.A. and Cole, M.D. 2002. BAF53 forms distinct nuclear complexes and functions as a critical c-Myc-interacting nuclear cofactor for oncogenic transformation. Mol. Cell. Biol. 22: 1307-1316.
5. Lee, J.H., Chang, S.H., Shim, J.H., Lee, J.Y., Yoshida, M. and Kwon, H. 2003. Cytoplasmic localization and nucleo-cytoplasmic shuttling of BAF53, a component of chromatin-modifying complexes. Mol. Cells 16: 78-83.
6. Lee, J.H., Lee, J.Y., Chang, S.H., Kang, M.J. and Kwon, H. 2005. Effects of Ser 2 and Tyr 6 mutants of BAF53 on cell growth and p53-dependent transcription. Mol. Cells 19: 289-293.

CHROMOSOMAL LOCATION

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

SOURCE

BAF53 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-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-47805 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-47805 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

BAF53 (C-13) 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), 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).

BAF53 (C-13) is also recommended for detection of BAF53 in additional species, including equine, canine, bovine, porcine and avian.

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 (C-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of BAF53: 45 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, NIH/3T3 nuclear extract: sc-2138 or Sol8 nuclear extract: sc-2157.

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.