SANTA CRUZ BIOTECHNOLOGY, INC.

BAF53 (m): 293T Lysate: sc-118664

BACKGROUND

Actin-related proteins (ARPs) are classified into ARP subclasses according to their amino acid sequence similarity to Actin. Both ARPS and actin proteins have an ATPase domain, which catalyzes the decomposition of adenosine triphosphate (ATP) into adenosine diphosphate (ADP) and a free phosphate ion to release energy. BAF53B, also known as ACTL6B or ACTL6, is a 426 amino acid nuclear protein that belongs to the ARP family of Actin-related proteins. Thought to be involved in vesicular transport, nuclear migration and chromatin remodeling, BAF53B functions as a subunit of the BAF complex Brg-1/Brm-associated factor, a structure that is functionally related to the Swi/Snf complex in *Drosophila*. The gene encoding BAF53B maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome.

REFERENCES

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2. Schafer, D.A. and Schroer, T.A. 1999. Actin-related proteins. Annu. Rev. Cell Dev. Biol. 15: 341-363.
3. Harata, M., Mochizuki, R. and Mizuno, S. 1999. Two isoforms of a human Actin-related protein show nuclear localization and mutually selective expression between brain and other tissues. Biosci. Biotechnol. Biochem. 63: 917-923.
4. Kuroda, Y., Oma, Y., Nishimori, K., Ohta, T. and Harata, M. 2002. Brain-specific expression of the nuclear actin-related protein ArpNα and its involvement in mammalian Swi/Snf chromatin remodeling complex. Biochem. Biophys. Res. Commun. 299: 328-334.
5. Olave, I., Wang, W., Xue, Y., Kuo, A. and Crabtree, G.R. 2002. Identification of a polymorphic, neuron-specific chromatin remodeling complex. Genes Dev. 16: 2509-2517.
6. Oma, Y., Nishimori, K. and Harata, M. 2003. The brain-specific Actin-related protein ArpNα interacts with the transcriptional co-repressor CtBP. Biochem. Biophys. Res. Commun. 301: 521-528.

CHROMOSOMAL LOCATION

Genetic locus: Actl6b (human) mapping to 3 A3.

PRODUCT

BAF53 (m): 293T Lysate represents a lysate of mouse BAF53 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

BAF53 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive BAF53 antibodies. Recommended use: 10-20 µl per lane.

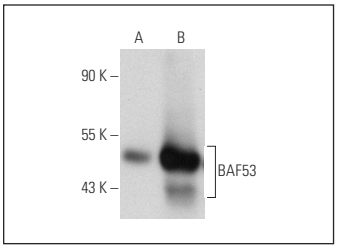
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

BAF53 (B-1): sc-137063 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse BAF53 expression in BAF53 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

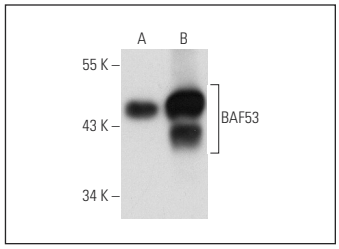
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



BAF53 (B-1): sc-137063. Western blot analysis of BAF53 expression in non-transfected: sc-117752 (**A**) and mouse BAF53 transfected: sc-118664 (**B**) 293T whole cell lysates.



BAF53 (G-2): sc-137081. Western blot analysis of BAF53 expression in non-transfected: sc-117752 (**A**) and mouse BAF53 transfected: sc-118664 (**B**) 293T whole cell lysates.

PROTOCOLS

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