SANTA CRUZ BIOTECHNOLOGY, INC.

ARF6 (m): 293T Lysate: sc-118516

BACKGROUND

The ADP-ribosylation factor (ARF) protein family are structurally and functionally conserved members of the Ras superfamily of regulatory GTP-binding proteins. ARFs influence vesicle trafficking and signal transduction in eukaryotic cells. ARF-dependent regulatory mechanisms include the coordination of spectrin interactions with Golgi membranes and the association of Actin to the Golgi via Rho family-dependent G-protein localization (Rac, Cdc42) and WASP/Arp2/3 complexes. Additionally, ARFs play a central role in maintenance of organelle integrity, assembly of coat proteins and activation of phospholipase D. The ARF proteins are categorized as class I (ARF1, ARF2 and ARF3), class II (ARF4 and ARF5) and class III (ARF6); members of each class share a common gene organization. The human ARF6 gene contains five exons and four introns, and encodes a 175 amino acid protein.

REFERENCES

1. Randazzo, P.A., Terui, T., Sturch, S. and Kahn, R.A. 1994. The amino-terminus of ADP-ribosylation factor (ARF) 1 is essential for interaction with Gs and ARF GTPase-activating protein. J. Biol. Chem. 269: 29490-29494.
2. Amor, J.C., Harrison, D.H., Kahn, R.A. and Ringe, D. 1994. Structure of the human ADP-ribosylation factor 1 complexed with GDP. Nature 372: 704-708.
3. Erickson, J.W., Zhang, C., Khan, R.A., Evans, T. and Cerione, R.A. 1996. Mammalian Cdc42 is a brefeldin A-sensitive component of the Golgi apparatus. J. Biol. Chem. 271: 26850-26854.
4. Godi, A., Santone, I., Pertile, P., Devarajan, P., Stabach, P.R., Morrow, J.S., Di Tullio, G., Polishchuk, R., Petrucci, T.C., Luini, A. and De Matteis, M.A. 1998. ADP ribosylation factor regulates spectrin binding to the Golgi complex. Proc. Natl. Acad. Sci. USA 95: 8607-8612.
5. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 600464. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Fucini, R.V., Navarrete, A., Vadakkan, C., Lacomis, L., Erdjument-Bromage, H., Tempst, P. and Stamnes, M. 2000. Activated ADP-ribosylation factor assembles distinct pools of actin on Golgi membranes. J. Biol. Chem. 275: 18824-18829.
7. Wu, W.J., Erickson, J.W., Lin, R. and Cerione, R.A. 2000. The γ-subunit of the coatomer complex binds Cdc42 to mediate transformation. Nature 405: 800-804.
8. Fucini, R.V., Chen, J.L., Sharma, C., Kessels, M.M. and Stamnes, M. 2002. Golgi vesicle proteins are linked to the assembly of an Actin complex defined by mAbp1. Mol. Biol. Cell 13: 621-631.
9. LocusLink Report (LocusID: 382). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: Arf6 (mouse) mapping to 12 C2.

PRODUCT

ARF6 (m): 293T Lysate represents a lysate of mouse ARF6 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ARF6 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ARF6 antibodies. Recommended use: 10-20 µl per lane.

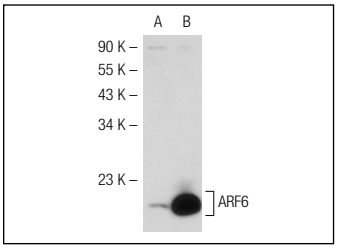
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ARF6 (3A-1): sc-7971 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ARF6 expression in ARF6 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



ARF6 (3A-1): sc-7971. Western blot analysis of ARF6 expression in non-transfected: sc-117752 (**A**) and mouse ARF6 transfected: sc-118516 (**B**) 293T whole cell lysates.

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.

PROTOCOLS

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