SANTA CRUZ BIOTECHNOLOGY, INC.

Ankyrin-1 (h2): 293T Lysate: sc-371924

BACKGROUND

Members of the Ankyrin family of proteins mediate the attachment of integral membrane proteins to the cytoskeleton. ANK1, ANK2 and ANK3 genes encode for the proteins in this family, Ankyrin-1 (also designated Ankyrin R), Ankyrin B and Ankyrin G, respectively. The proteins are structured similarly each composed of an N-terminal domain with multiple ankyrin repeats, a highly conserved central spectrin binding domain, and C-terminal regulatory domains which are susceptible to the most variance. Ankyrin-1 is a membrane protein that links the cytoskeleton to the plasma membrane in erythrocytes, cardiac and skeletal muscle, and brain. It is expressed as many isoforms, including a full length protein and several shorter isoforms. Ankyrin-1 has also been found to be defective in patients with hereditary spherocytosis (HS), a common hemolytic anemia.

REFERENCES

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2. Zhou, D., Birkenmeier, C.S., Williams, M.W., Sharp, J.J., Barker, J.E. and Bloch, R.J. 1997. Small, membrane-bound, alternatively spliced forms of Ankyrin-1 associated with the sarcoplasmic reticulum of mammalian skeletal muscle. J. Cell Biol. 136: 621-631.
3. Gallagher, P.G., Tse, W.T., Scarpa, A.L., Lux, S.E. and Forget, B.G. 1997. Structure and organization of the human Ankyrin-1 gene. Basis for complexity of pre-mRNA processing. J. Biol. Chem. 272: 19220-19228.
4. Gallagher, P.G. and Forget, B.G. 1998. An alternate promoter directs expression of a truncated, muscle-specific isoform of the human Ankyrin 1 gene. J. Biol. Chem. 273: 1339-1348.
5. Zhang, X. and Bennett, V. 1998. Restriction of 480/270-kD Ankyrin G to axon proximal segments requires multiple Ankyrin G-specific domains. J. Cell Biol. 142: 1571-1581.
6. Bennett, V. and Lambert, S. 1999. Physiological roles of axonal ankyrins in survival of premyelinated axons and localization of voltage-gated sodium channels. J. Neurocytol. 28: 303-318.
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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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: ANK1 (human) mapping to 8p11.21.

PRODUCT

Ankyrin-1 (h2): 293T Lysate represents a lysate of human Ankyrin-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Ankyrin-1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Ankyrin-1 antibodies. Recommended use: 10-20 µl per lane.

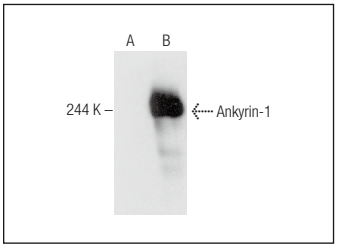
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Ankyrin-1 (H-4): sc-374240 is recommended as a positive control antibody for Western Blot analysis of enhanced human Ankyrin-1 expression in Ankyrin-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

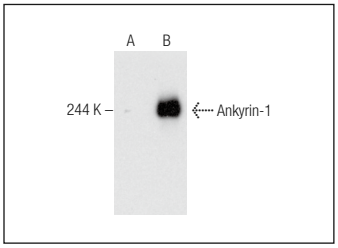
RECOMMENDED SUPPORT REAGENTS

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



Ankyrin-1 (H-4): sc-374240. Western blot analysis of Ankyrin-1 expression in non-transfected: sc-117752 (**A**) and human Ankyrin-1 transfected: sc-371924 (**B**) 293T whole cell lysates.



Ankyrin-1 (8C3): sc-12733. Western blot analysis of Ankyrin-1 expression in non-transfected: sc-117752 (**A**) and human Ankyrin-1 transfected: sc-371924 (**B**) 293T whole cell lysates.

RESEARCH USE

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