

ANKRA (h): 293T Lysate: sc-113454

BACKGROUND

ANKRA (ankyrin repeat family A), also known as ANKRA2 (ankyrin repeat family A protein 2) or RFX-B-like 2, is an abundantly expressed, 313 amino acid protein found in a wide variety of tissues. It contains an N-terminal helix-loop-helix domain and three ankyrin repeats. ANKRA is known to interact with MaxiK α , megalin and the histone deacetylases, HDAC4 and HDAC5. Typically, ANKRA is evenly distributed throughout the cell, however, in the presence of HDACs, ANKRA specifically localizes to the nucleus. In the nucleus, ANKRA appears to be important for transcriptional repression, functioning as a corepressor and binding to the C-terminal sequence of AHRR. ANKRA can become redistributed in the cell in response to CaMK signaling.

REFERENCES

1. Rader, K., Orlando, R.A., Lou, X. and Farquhar, M.G. 2000. Characterization of ANKRA, a novel ankyrin repeat protein that interacts with the cytoplasmic domain of megalin. *J. Am. Soc. Nephrol.* 11: 2167-2178.
2. Rader, K., Boyer, A.D., Farquhar, M.G. and Arden, K.C. 2000. Assignment of ankyrin repeat, family A (RFXANK-like) 2 (ANKRA2) to human chromosome 5q12→q13 by radiation hybrid mapping and somatic cell hybrid PCR. *Cytogenet. Cell Genet.* 89: 164-165.
3. Krawczyk, M., Masternak, K., Zufferey, M., Barras, E. and Reith, W. 2005. New functions of the major histocompatibility complex class II-specific transcription factor RFXANK revealed by a high-resolution mutagenesis study. *Mol. Cell. Biol.* 25: 8607-8618.
4. Wang, A.H., Grégoire, S., Zika, E., Xiao, L., Li, C.S., Li, H., Wright, K.L., Ting, J.P. and Yang, X.J. 2005. Identification of the ankyrin repeat proteins ANKRA and RFXANK as novel partners of class IIa histone deacetylases. *J. Biol. Chem.* 280: 29117-29127.
5. Lim, H.H. and Park, C.S. 2005. Identification and functional characterization of ankyrin-repeat family protein ANKRA as a protein interacting with BK_{Ca} channel. *Mol. Biol. Cell* 16: 1013-1025.
6. Long, A.B. and Boss, J.M. 2005. Evolutionary conservation and characterization of the bare lymphocyte syndrome transcription factor RFX-B and its paralogue ANKRA2. *Immunogenetics* 56: 788-797.
7. McKinsey, T.A., Kuwahara, K., Bezprozvannaya, S. and Olson, E.N. 2006. Class II histone deacetylases confer signal responsiveness to the ankyrin-repeat proteins ANKRA2 and RFXANK. *Mol. Biol. Cell* 17: 438-447.
8. Oshima, M., Mimura, J., Yamamoto, M. and Fujii-Kuriyama, Y. 2007. Molecular mechanism of transcriptional repression of AhR repressor involving ANKRA2, HDAC4, and HDAC5. *Biochem. Biophys. Res. Commun.* 364: 276-282.

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: ANKRA2 (human) mapping to 5q13.2.

PRODUCT

ANKRA (h): 293T Lysate represents a lysate of human ANKRA transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

ANKRA (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive ANKRA antibodies. Recommended use: 10-20 μ l per lane.

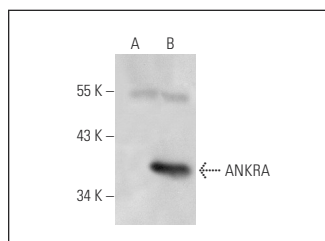
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ANKRA (A26): sc-101005 is recommended as a positive control antibody for Western Blot analysis of enhanced human ANKRA expression in ANKRA 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



ANKRA (A26): sc-101005. Western blot analysis of ANKRA expression in non-transfected: sc-117752 (A) and human ANKRA transfected: sc-113454 (B) 293T whole cell lysates.

RESEARCH USE

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