

ANKRA (A26): sc-101005

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 AHR. ANKRA can become redistributed in the cell in response to CaMK signaling.

REFERENCES

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2. Rader, K., et al. 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., et al. 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., et al. 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., et al. 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., et al. 2007. Molecular mechanism of transcriptional repression of AhR repressor involving ANKRA2, HDAC4, and HDAC5. *Biochem. Biophys. Res. Commun.* 364: 276-282.

CHROMOSOMAL LOCATION

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

SOURCE

ANKRA (A26) is a mouse monoclonal antibody raised against recombinant ANKRA of human origin.

PRODUCT

Each vial contains 100 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ANKRA (A26) is recommended for detection of ANKRA of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for ANKRA siRNA (h): sc-72495, ANKRA shRNA Plasmid (h): sc-72495-SH and ANKRA shRNA (h) Lentiviral Particles: sc-72495-V.

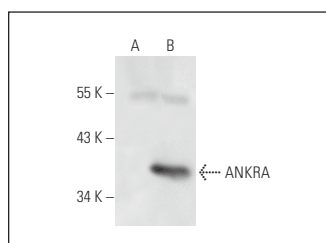
Molecular Weight of ANKRA: 34 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or ANKRA (h): 293T Lysate: sc-113454.

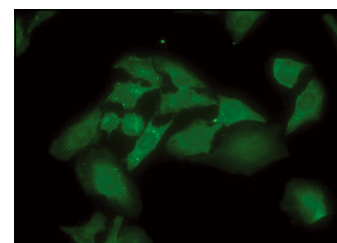
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

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.



ANKRA (A26): sc-101005. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing membrane and cytoplasmic localization.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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.