ARSA (m2): 293T Lysate: sc-118576



The Power to Question

BACKGROUND

ARSA is the human homolog of the bacterial arsA, a member of the ATPase superfamily. ARSA and ARSB have been postulated to form a membrane complex which functions as an anion-translocating ATPase with ARSA providing the catalytic energy transducing component of the pump. ARSA hydrolyses ATP in the presence of its anionic substrate antimonite and produces resistance to arsenite and antimonite. The active form of ARSA is a homodimer with four nucleotide binding sites, two from each monomer.

REFERENCES

- Rosen, B.P. 1990. The plasmid-encoded arsenical resistance pump: an anion-translocating ATPase. Res. Microbiol. 141: 336-341.
- 2. Rosen, B.P., et al. 1990. Molecular analysis of an ATP-dependent anion pump. Philos. Trans. R. Soc. Lond., B, Biol. Sci. 326: 455-463.
- Tisa, L.S., et al. 1990. Molecular characterization of an anion pump. The ARSB protein is the membrane anchor for the ARSA protein. J. Biol. Chem. 265: 190-194.
- Li, J., et al. 1996. Interaction of ATP binding sites in the ARSA ATPase, the catalytic subunit of the Ars pump. J. Biol. Chem. 271: 25247-25252.
- Rosen, B.P., et al. 1999. Mechanism of the ARSA ATPase. Biochim. Biophys. Acta 1461: 207-215.
- 6. Walmsley, A.R., et al. 1999. The ATPase mechanism of ARSA, the catalytic subunit of the arsenite pump. J. Biol. Chem. 274: 16153-16161.
- Walmsley, A.R., et al. 2001. Antimonite regulation of the ATPase activity of ARSA, the catalytic subunit of the arsenical pump. Biochem. J. 360: 589-597.
- Zhou, T., et al. 2001. Conformational changes in four regions of the *Escherichia coli* ARSA ATPase link ATP hydrolysis to ion translocation. J. Biol. Chem. 276: 30414-30422.
- Zhou, T., et al. 2002. Unisite and multisite catalysis in the ARSA ATPase.
 J. Biol. Chem. 277: 23815-23820.

CHROMOSOMAL LOCATION

Genetic locus: Asna1 (mouse) mapping to 8 C3.

PRODUCT

ARSA (m2): 293T Lysate represents a lysate of mouse ARSA transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ARSA (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ARSA antibodies. Recommended use: 10-20 µl per lane.

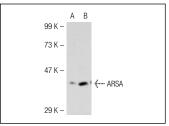
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ARSA (7A): sc-100676 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ARSA expression in ARSA 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-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



ARSA (7A): sc-100676. Western blot analysis of ARSA expression in non-transfected: sc-117752 (**A**) and mouse ARSA transfected: sc-118575 (**B**) 293T whole cell

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.

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