

# ARSA (L-20): sc-28126

## 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 that functions as an anion-translocating ATPase with *arsA*, thereby providing the catalytic energy transducing component of the pump. *ArsA* hydrolyses ATP in the presence of its anionic substrate antimonite, and produces resistance to both arsenite and antimonite. The active form of *arsA* is a homodimer with four nucleotide binding sites, two from each monomer.

## REFERENCES

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3. 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.
4. 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.
5. Rosen, B.P., et al. 1999. Mechanism of the ARSA ATPase. *Biochim. Biophys. Acta* 1461: 207-215.
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8. 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.
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## CHROMOSOMAL LOCATION

Genetic locus: ASNA1 (human) mapping to 19p13.2; Asna1 (mouse) mapping to 8 C3.

## SOURCE

ARSA (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of arsenical pump-driving ATPase of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-28126 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ARSA (L-20) is recommended for detection of ARSA of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

ARSA (L-20) is also recommended for detection of ARSA in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ARSA siRNA (h): sc-105093, ARSA siRNA (m): sc-141278, ARSA shRNA Plasmid (h): sc-105093-SH, ARSA shRNA Plasmid (m): sc-141278-SH, ARSA shRNA (h) Lentiviral Particles: sc-105093-V and ARSA shRNA (m) Lentiviral Particles: sc-141278-V.

Molecular Weight of ARSA: 39 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.