

# Human ASNA1 antibody

Catalog Number: ATGA0293

## PRODUCT INFORMATION

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**Catalog number**

ATGA0293

**Clone No.**

AT2A1

**Product type**

Monoclonal Antibody

**UnitProt No.**

O43681

**NCBI Accession No.**

NP\_004308

**Alternative Names**

ATPase ASNA1, ARSA-I, ARSA1, ASNA-I, GET3, hASNA-I, TRC40

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human ASNA1 (1-348aa) purified from E. coli

**Isotype**

IgG2b kappa

**Purification Note**

By protein-A affinity chromatography

**Application**

ELISA, WB, ICC/IF, FACS

**Usage**

The antibody has been tested by ELISA, Western blot, ICC/IF and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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## Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

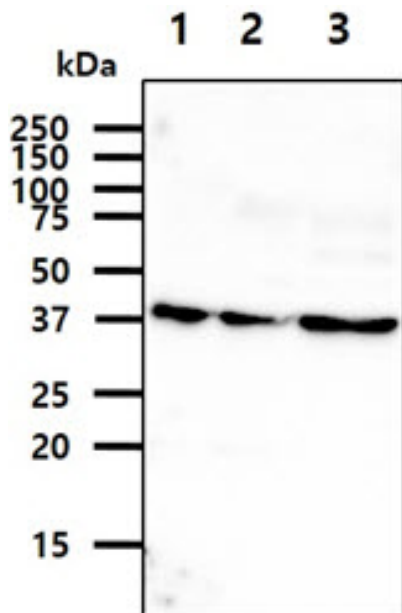
ASNA1, also as known as ARSA and TRC40, is the human homolog of the bacterial *arsA*, a member of the ATPase superfamily. *ArsA* and *ArsB* have been postulated to form a membrane complex which functions as an anion-translocating. It recognizes and selectively binds the transmembrane domain of TA proteins in the cytosol. This complex then targets to the endoplasmic reticulum by membrane-bound receptors, where the tail-anchored protein is released for insertion. This process is regulated by ATP binding and hydrolysis. *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.

### General References

- Ota T and Suzuki Y. (2004) *Nat genet* 36(1): 40-5.
- Kurdi-Haidar B.. (1996) *Genomics* 36(3): 486-91.
- Stefanovic S. (2007) *Cell* 128(6): 1147-59.

## DATA

### Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human ASNA1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: HeLa cell lysate

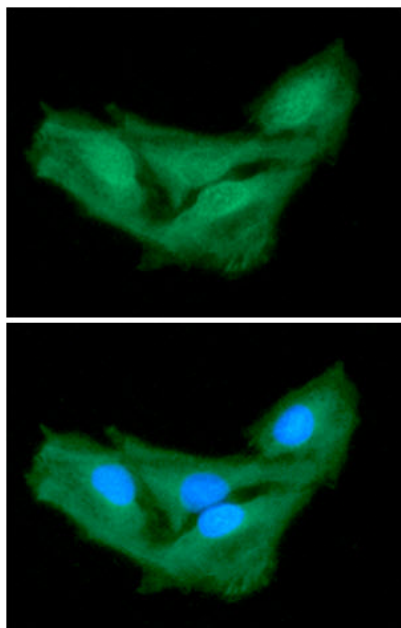
Lane 2.: 293T cell lysate

Lane 3.: MCF7 cell lysate

### Immunocytochemistry/Immunofluorescence (ICC/IF)

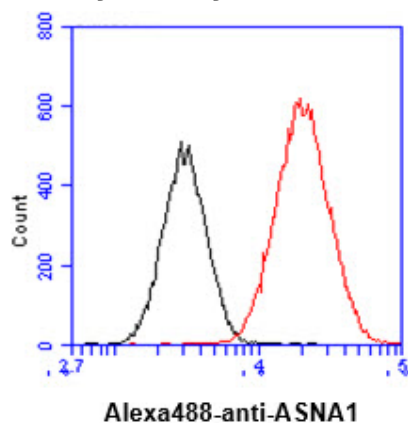
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ICC/IF analysis of ASNA1 in HeLa cells. The cell was stained with ATGA0293 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

### Flow cytometry (FACS)



Flow cytometry analysis of ASNA1 in HeLa cell line, staining at 2-5ug for  $1 \times 10^6$  cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).