Human ASNA1 antibody

Catalog Number: ATGA0293

PRODUCT INFORMATION

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

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

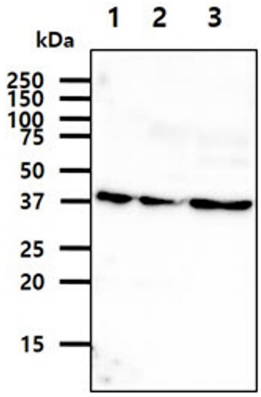
ASNA1, also as known as ARSA and TRC40, is the human homolog of the bacterial arsA, a member of the ATPase superfamily. ArsA and ArsB have been postulated to form a membrane complex which functions as an anion-translocating. It recognizes and selectively binds the transmembrane domain of TA proteins 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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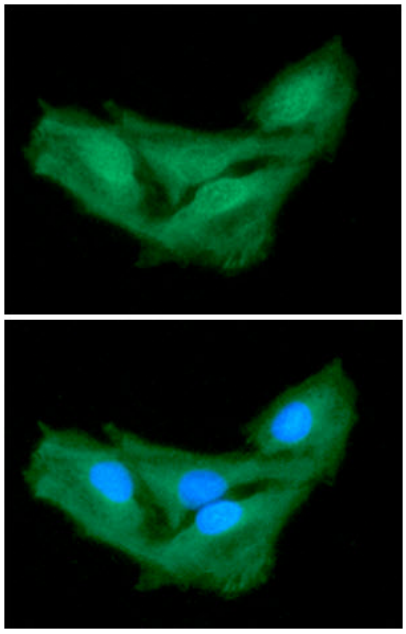
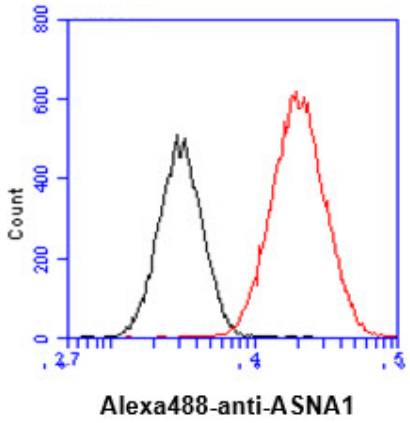


ICC/IF analysis of ASNA1 in HeLa cells. The cell was stained with ATGA0293 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)



Flow cytometry analysis of ASNA1 in HeLa cell line, staining at 2-5ug for 1x10^6cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).