

Human Aminoacylase/ACY1 antibody

Catalog Number: ATGA0329

PRODUCT INFORMATION

Catalog number

ATGA0329

Clone No.

AT1E2

Product type

Monoclonal Antibody

UnitProt No.

Q03154

NCBI Accession No.

NP_000657

Alternative Names

Aminoacylase 1, ACY1D, ACYLASE, Aminoacylase 1

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 ACY1 (1-408aa) 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

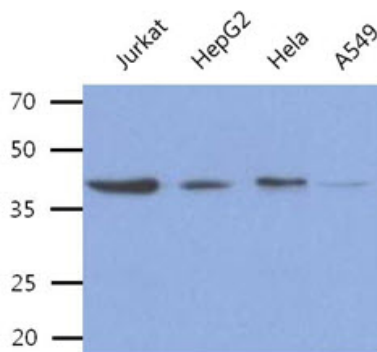
Aminoacylase-1, also designated N-acyl-L-amino-acid amidohydrolase or ACY1, is a member of the largest metallopeptidase family called M20A. Aminoacylase-1 is a zinc-binding homodimeric enzyme expressed in kidney, brain, placenta and spleen. It is the most abundant of the aminoacylases. Defects in ACY1 are the cause of aminoacylase-1 deficiency (ACY1D). ACY1D results in a metabolic disorder manifesting with encephalopathy, unspecific psychomotor delay, psychomotor delay with atrophy of the vermis and syringomyelia, marked muscular hypotonia or normal clinical features. All affected individuals exhibit markedly increased urinary excretion of several N-acetylated amino acids.

General References

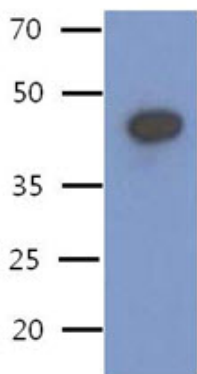
Cook R.M., et al. (1993) J Biol Chem 268(23): 17010-17017.
Lindner H.A., et al. (2003) J Biol Chem 278(45): 44496-44504.

DATA

Western blot analysis (WB)



The cell lysates of Jurkat, HepG2, HeLa, A549 (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human ACY1 antibody (1:500). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

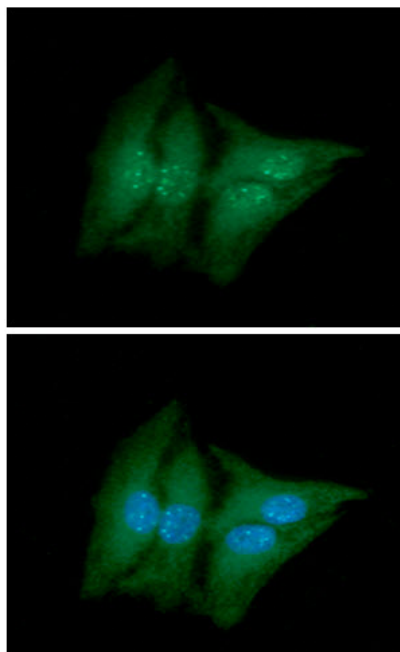


The Recombinant ACY1 protein (50ng) was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human ACY1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Immunocytochemistry/Immunofluorescence (ICC/IF)

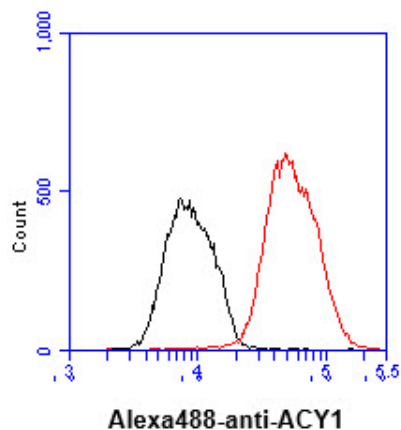
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ICC/IF analysis of ACY1 in HeLa cells. The cell was stained with ATGA0329 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)



Flow cytometry analysis of ACY1 in Hep3B cell line, staining at 2-5ug for 1×10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).