

## Monoclonal anti-human ACY1 antibody (clone AT1E2)

Mouse IgG<sub>2b</sub>, κ

Cat. No. IBATGA0329

**Immunogen:** Recombinant human ACY1 (1-408aa) purified from *E. coli*

**NCBI Accession No.:** NP\_000657

**Isotype:** Mouse IgG<sub>2b</sub> heavy chain and κ light chain

**Clone:** Anti-human ACY1 mAb, clone AT1E2, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human ACY1 protein.

**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.

**Concentration:** 1 mg/ml

**Form:** Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

**Storage:** Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

**Usage:** The antibody has been tested by ELISA, Western blot analysis, Flow cytometry and ICC/IF to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results. Recommended starting dilution is 1:1000.

**Application:** ELISA, WB, Flow cytometry, ICC/IF

**For research use only. This product is not intended or approved for human, diagnostics or veterinary use.**

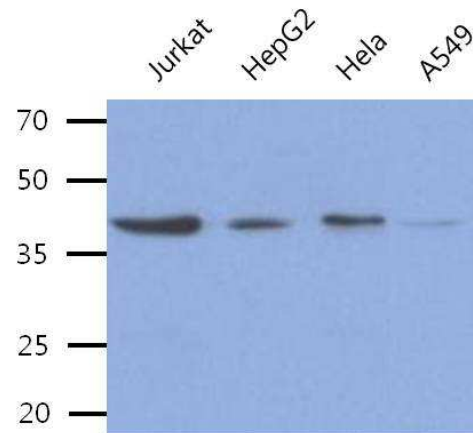


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# Product information

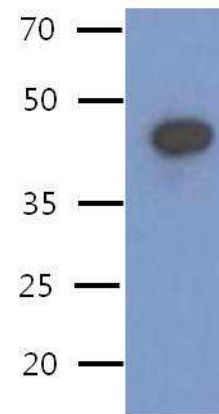
## Western blot analysis

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.



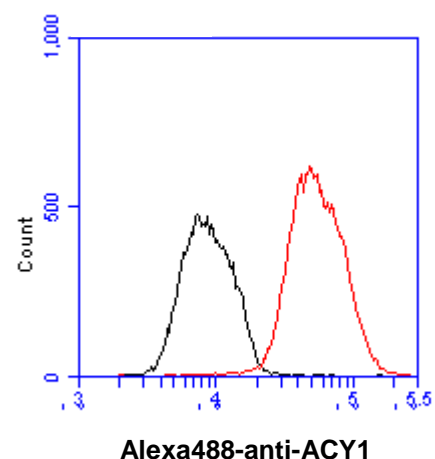
## Western blot analysis

The Recombinant Human ACY1 (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.



## Flow cytometry

Flow cytometry analysis of ACY1 in Hep3B 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).



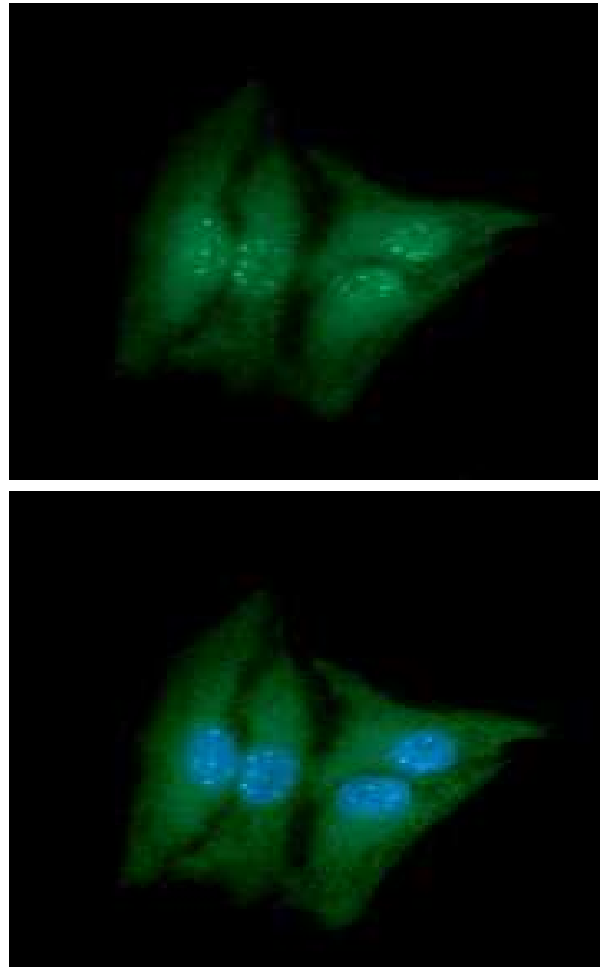
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## ICC/IF analysis

ICC/IF analysis of ACY1 in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human ACY1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



**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

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