

Anti-Aminoacylase 1 Antibody (1H430)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	1H430
Purification:	Protein A

Applications

Verified Activity:	<p>1. Immunofluorescence staining of Human ACY1 in Hela or SKBR3 cells. Cells were fixed with 4% PFA, permeabilized with 1% Triton X-100 in PBS, blocked with 10% serum, and incubated with Rabbit anti-Human ACY1 monoclonal antibody (1:60). Then cells were stained with the Alexa Fluor® 488-conjugated Goat Anti-rabbit IgG secondary antibody (left panel, captured by laser confocal scanning microscope; right panel, captured by fluorescence microscope), countstained with DAPI (blue). Positive staining was localized to cytoplasm.</p> <p>2. Flow cytometric analysis of Human ACY1 expression on HepG2 cells. The cells were treated according to manufacturer's manual (BD Pharmingen™ Cat. No. 554714), stained with purified anti-Human ACY1, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.</p>
Application:	FCM, ICC/IF
Recommended	ICC-IF: 1:20-1:100; FCM: 1:25-1:100

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human ACY1 / Aminoacylase-1 protein (TMPY-01058)
Antigen Species:	Human
Synonyms:	aminoacylase 1; ACY-1; HEL-S-5; ACY1D

Research Background

Aminoacylase 1 (ACY1), a metalloenzyme that removes amide-linked ACY1 groups from amino acids and may play a role in regulating responses to oxidative stress. Both the C-terminal fragment found in the two-hybrid screen and full-length ACY1 co-immunoprecipitate with SphK1. Though both C-terminal and full-length proteins slightly reduce SphK1 activity measured in vitro, the C-terminal fragment inhibits while full-length ACY1 potentiates the effects of SphK1 on proliferation and apoptosis. It suggested that ACY1 physically interacts with SphK1 and may influence its physiological functions. As a homodimeric zinc-binding enzyme, Aminoacylase 1 catalyzes the hydrolysis of N alpha-acylated amino acids. Deficiency of Aminoacylase 1 due to mutations in the Aminoacylase 1 (ACY1) gene follows an autosomal-recessive trait of inheritance and is characterized by accumulation of N-acetyl amino acids in

the urine.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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