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Recombinant Human Aminoacylase 1/ACY 1 Protein

Catalog No.: RP03197 Recombinant

Sequence Information

Species Gene ID Swiss ProtBaculovirus- 95 Q03154
Insect Cells

Tags

C-His

Synonyms

ACY1 , Aminoacylase-1; ACY-1; 3.5.1.14; N-acyl-L-amino-acid amidohydrolase

Product Information

Source Purification Baculovirus-Insect ≥ 95 % as Cells determined by SDS-PAGE.

Endotoxin

 $< 1 EU/\mu g$ of the protein by LAL method.

Formulation

Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0, 10% glycerol

Reconstitution

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.

Basic Information

Description

Recombinant Human Aminoacylase 1/ACY 1 Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Met1-Ser408) of Human Aminoacylase 1/ACY 1 (Accession #NP_000657.1) fused with a His tag at the C-terminus.

Bio-Activity

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20° C for 3 months, at $2-8^{\circ}$ C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Contact



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Validation Data



Recombinant Human Aminoacylase 1/ACY 1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.