

Mouse ACY1 / Aminoacylase-1 Protein (His Tag)

Catalog Number: 50008-M08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

1110014J22Rik, Acy-1, Acy1

Protein Construction:

A DNA sequence encoding the mouse ACY1 (Q99JW2) (Met 1-Ser 408) was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio-Activity

Measured by its ability to cleave N-acetyl-L-Methionine (Ac-Met) . The specific activity is >4,000 pmoles/min/μg.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 18

Molecular Mass:

The recombinant mouse ACY1 consists of 402 amino acids and has a calculated molecular mass of 45 kDa as estimated by SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

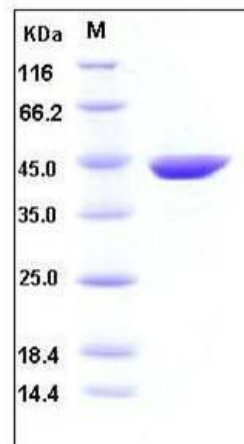
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Aminoacylase-1 (ACY1), is a cytosolic, homodimeric, zinc-binding enzyme that catalyzes the hydrolysis of acylated L-amino acids to L-amino acids and acyl group. ACY1 is the first member of a new family of zinc-binding enzymes. It is expressed in a wide range of tissue with most abundantly expressed in the kidney tubular epithelium. Mammalian ACY1 participates in the breakdown of N-acetylated amino acids during intracellular protein catabolism. It is reported that ACY1 interacts with sphingosine kinase type 1, which is involved in promoting cell growth and inhibiting apoptosis of tumor cells.

References

1. Miller, Y.E. et al.,1989, J. Clin. Invest.83 (6): 2120-2124
2. Miller, Y. E. et al.,1991, Genomics. 8 (1): 149-154.
3. Cook, R.M. et al.,1993, J. Biol. Chem.268 (23): 17010-17017.
4. Maceyka, M. et al., 2004, FEBS Lett. 568: 30-34.
5. Lindner, H.A. et al.,2008, Biochimie.90 (5):773-580.

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