

For Research Use Only

Recombinant Mouse ACBP/DBI protein (rFc Tag) (HPLC verified)



Catalog Number: Eg2462

Basic Information

Species:
Mouse

Purity:
>90 %, SDS-PAGE
>90 %, SEC-HPLC

Tag:
rFc Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE
>90 %, SEC-HPLC

Endotoxin Level:
<0.1 EU/ µg protein, LAL method

Source:
HEK293-derived Mouse ACBP protein Met1-Ile87 (Accession# P31786) with a rabbit IgG Fc tag at the N-terminus.

GeneID:
13167

Accession:
P31786

Predicted Molecular Mass:
37.2 kDa

SDS-PAGE:
35-40 kDa, reducing (R) conditions

Formulation:
Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

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

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Acyl coenzyme A binding protein (ACBP), also known as diazepam-binding inhibitor (DBI), is a phylogenetically ancient protein present in some eubacteria and the entire eukaryotic radiation. In several eukaryotic phyla, ACBP/DBI transcends its intracellular function in fatty acid metabolism because it can be released into the extracellular space. Indeed, autophagy is tied to the atypical secretion of this leaderless protein that is predominantly present in the cytosol of nucleated cells. Once released into the extracellular space, ACBP/DBI then acts on gamma-aminobutyric acid (GABA) receptors to inhibit autophagy via autocrine, paracrine, and neuroendocrine pathways.

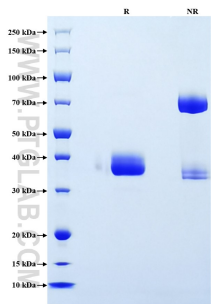
References

- 1.Montégut, Léa et al. (2023) Aging Cell.22(9):e13910.
- 2.Motiño, Omar et al. (2022) Proc Natl Acad Sci U S A. 119(41):e2207344119.
- 3.Alquier, Thierry et al. (2021) Trends Endocrinol Metab. 32(11):890-903.

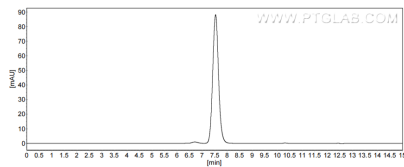
Synonyms

ACBP, Acyl-CoA-binding protein, DBI, Diazepam-binding inhibitor, Endozepine

Selected Validation Data



Purity of Recombinant Mouse ACBP was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



The purity of Mouse ACBP/DBI was greater than 90% as determined by SEC-HPLC.