Recombinant ACATN protein (His tag)

Catalog Number	537141
Synonyms	AT-1; Acetyl-CoA transporter 1; Solute carrier family 33 member 1
Species	Human
Expression System	E. coli
Accession	O00400
Molecular Weight	Predictes a molecular mass of 10.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 10 kDa band.

Product Information

Sequence Region	426-508
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 426-508 aa (O00400) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Acetyl-coenzyme A transporter 1 (AT-1) Fragment (residues 426-508) is a high-purity, stable protein fragment designed for structural and biochemical studies. This 83-amino acid fragment, derived from the SLC33A1 gene, represents a soluble and stable region of the full-length transporter, facilitating research into acetyl-CoA transport mechanisms and endoplasmic reticulum-based acetylation processes. Acetyl-coenzyme A transporter 1 (AT-1), encoded by the SLC33A1 gene, is a multi-pass membrane protein localized to the endoplasmic reticulum (ER) membrane. It functions as an active acetyl-CoA transporter, importing acetyl-CoA into the ER lumen where it serves as a substrate for ER-based acetyl-CoA:lysine acetyltransferases. These enzymes acetylate ER-resident proteins, such as BACE1, playing a critical role in protein modification and function. Additionally, AT-1 is essential for the O-acetylation of gangliosides, highlighting its importance in glycosphingolipid biosynthesis and cellular signaling pathways. The provided fragment (residues 426-508) was computationally selected to represent a stable, soluble unit of the protein, enabling detailed structural and functional analyses without the complexities of the full-length membrane protein.