Recombinant AAA1 protein (His tag)

Catalog Number	541352
Synonyms	Asc-1; Solute carrier family 7 member 10
Species	Human
Expression System	E. coli
Accession	Q9NS82
Molecular Weight	Predictes a molecular mass of 16.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	134-267
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 134-267 aa (Q9NS82) 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 Asc-type amino acid transporter 1 (Asc-1/SLC7A10) Fragment (aa 134-267) - A high-quality protein fragment ideal for structural studies and functional characterization of this crucial neutral amino acid transporter involved in neurotransmission and metabolic regulation. Asc-type amino acid transporter 1 (Asc-1), encoded by the SLC7A10 gene, forms a functional heterodimeric complex with SLC3A2/4F2hc to transport small neutral L- and D-amino acids across plasma membranes. This transporter preferentially mediates exchange transport but can also operate via facilitated diffusion. As a major transporter for glycine and L-/D-serine in the central nervous system, Asc-1 plays critical roles in glycine metabolism, glycinergic inhibitory neurotransmission, and regulation of excitatory glutamatergic transmission through modulation of NMDA receptor activation. The protein localizes to the cell membrane as a multi-pass membrane protein and is expressed in astrocytic processes and adipocytes, where it may influence adipocyte lineage commitment. This recombinant fragment represents a stable, soluble unit computationally selected for structural and biochemical analyses.