Recombinant ABCA7 protein (His tag)

Catalog Number	543113
Synonyms	ABCA-SSN; ATP-binding cassette sub-family A member 7; Autoantigen SS-N; Macrophage ABC transporter
Species	Human
Expression System	E. coli
Accession	Q8IZY2
Molecular Weight	Predictes a molecular mass of 31.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	1264-1537
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1264-1537 aa (Q8IZY2) 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 ABCA7 Fragment (aa 1264-1537) is a high-purity, stable protein fragment derived from the Phospholipid-transporting ATPase ABCA7, designed for structural and biochemical studies. This 274-amino acid fragment offers a soluble and functional unit ideal for investigating ATP-binding cassette transporter mechanisms, lipid homeostasis, and Alzheimer's disease-related pathways. The full-length Phospholipid-transporting ATPase ABCA7 (EC 7.6.2.1) is a key ATP-binding cassette transporter in humans that catalyzes the ATP-dependent translocation of phospholipids, particularly phosphatidylserine, across membranes. It plays critical roles in lipid homeostasis, macrophage phagocytosis, apolipoprotein-mediated phospholipid efflux, and cellular ceramide regulation. ABCA7 is also implicated in amyloid-beta clearance and processing, linking it to Alzheimer's disease pathology. Located primarily in the cell membrane, Golgi apparatus, and endosomes, it dynamically localizes to phagocytic cups and ruffles in activated macrophages. The selected fragment (aa 1264-1537) represents a computationally optimized, stable region for experimental applications, supporting research into its multifaceted biological functions.