Recombinant ABCA3 protein (His tag)

Catalog Number	545775
Synonyms	ABC-C transporter; ATP-binding cassette sub-family A member 3; ATP-binding cassette transporter 3; ATP-binding cassette 3; Xenobiotic-transporting ATPase ABCA3
Species	Human
Expression System	E. coli
Accession	Q99758
Molecular Weight	Predictes a molecular mass of 43.70 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	1327-1704
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 1327-1704 aa (Q99758) 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 ABCA3 Protein Fragment (residues 1327-1704) – a high-purity, functional fragment encompassing the ABC transporter 2 domain, essential for studying phospholipid transport and ATPase activity in pulmonary surfactant biology. Phospholipid-transporting ATPase ABCA3 (encoded by the ABCA3 gene) is a critical ATP-binding cassette transporter in humans that facilitates ATP-dependent transport of phospholipids, including phosphatidylcholine and phosphoglycerol, into lamellar bodies. This activity supports pulmonary surfactant homeostasis, lamellar body biogenesis, and cellular protection against free cholesterol toxicity. The protein localizes to endosomal, multivesicular body, lysosomal, and cytoplasmic vesicle membranes, particularly in lung alveolar type II cells, where it undergoes post-ER processing and oligomerization. The provided fragment spans residues 1327-1704, fully containing the ABC transporter 2 domain, enabling focused investigation into ATP-binding and transport mechanisms without interference from other regions.