Recombinant ABCBA protein (His tag)

Catalog Number	541341
Synonyms	ABC-mitochondrial erythroid protein; ABC-me protein; ATP-binding cassette transporter 10; ABC transporter 10 protein; Mitochondrial ATP-binding cassette 2; M-ABC2
Species	Human
Expression System	E. coli
Accession	Q9NRK6
Molecular Weight	Predictes a molecular mass of 32.80 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	453-738
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 453-738 aa (Q9NRK6) 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	Introducing the recombinant human ABCB10 protein fragment (residues 453-738), a high-quality tool designed for investigating the ATP-binding cassette (ABC) transporter domain. This 286-amino acid fragment is ideal for studying ATP-dependent transport mechanisms, particularly in the context of mitochondrial function, heme biosynthesis, and antioxidative stress pathways. The full-length ATP-binding cassette sub-family B member 10 (ABCB10) is a mitochondrial inner membrane protein that functions as an ATP-dependent transporter. It plays a crucial role in hemoglobin synthesis by exporting biliverdin from the mitochondrial matrix and facilitating iron insertion into protoporphyrin IX during heme biosynthesis. Additionally, ABCB10 contributes to antioxidative stress responses and stabilizes the iron transporter mitoferrin-1. It has also been implicated in mitochondrial unfolded protein response signaling. As a multi-pass membrane protein localized to the mitochondrial inner membrane, ABCB10 is essential for cellular metabolism and erythroid development.