Recombinant MDR3 protein (His tag)

Catalog Number	537612
Synonyms	ATP-binding cassette sub-family B member 4; Multidrug resistance protein 3; P-glycoprotein 3
Species	Human
Expression System	E. coli
Accession	P21439
Molecular Weight	Predictes a molecular mass of 33.83 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	995-1286
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 995-1286 aa (P21439) 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 Phosphatidylcholine translocator ABCB4 fragment (residues 995-1286), encompassing the critical ABC transporter 2 domain. This high-purity protein is ideal for investigating ATP-binding cassette-mediated phospholipid transport mechanisms and biliary lipid secretion pathways in hepatic research. The full-length ABCB4 protein, also known as Multidrug resistance protein 3 or P-glycoprotein 3, functions as an energy-dependent phospholipid efflux translocator that specifically transports phosphatidylcholine from the inner to the outer leaflet of the canalicular membrane in hepatocytes. This floppase activity is essential for biliary phospholipid secretion, protecting the biliary tree from bile salt detergent activity and facilitating cholesterol efflux. ABCB4 localizes primarily to the apical canalicular membrane of hepatic epithelial cells, with additional presence in membrane rafts and cytoplasmic vesicles. The protein works cooperatively with ATP8B1 to maintain hepatocyte integrity against bile salt toxicity and plays a crucial role in recruiting phospholipids to nonraft membranes while enriching sphingomyelin and cholesterol in raft membranes.