Recombinant ABCB9 protein (His tag)

Catalog Number	541316
Synonyms	ATP-binding cassette sub-family B member 9; ATP-binding cassette transporter 9; ABC transporter 9 protein; hABCB9; TAP-like protein; TAPL
Species	Human
Expression System	E. coli
Accession	Q9NP78
Molecular Weight	Predictes a molecular mass of 37.40 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	437-766
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 437-766 aa (Q9NP78) 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 ABCB9 (437-766) is a high-purity protein fragment encompassing the ATP-binding cassette (ABC) transporter domain from human ABC-type oligopeptide transporter ABCB9. This fragment serves as an essential tool for investigating ATP-dependent peptide transport mechanisms and lysosomal degradation pathways in cellular models. The full-length ABCB9 protein, also known as TAP-like protein (TAPL), functions as an ATP-dependent low-affinity peptide transporter that translocates a broad spectrum of peptides (6-mer to 59-mer, with optimal activity for 23-mers) from the cytosol to the lysosomal lumen for degradation. It demonstrates no significant preference for peptide size but favors peptides with positively charged, aromatic, or hydrophobic residues at terminal positions while disfavoring negatively charged residues, asparagine, and methionine. ABCB9 is localized to the lysosomal membrane as a multi-pass membrane protein and follows an intracellular trafficking route from the endoplasmic reticulum through Golgi and early endosomes to late endosomal and lysosomal compartments, potentially residing in membrane rafts. This transporter plays a crucial role in cellular peptide processing and degradation pathways.