Recombinant ABCG2 protein (His tag)

Catalog Number	543889
Synonyms	ATP-binding cassette sub-family G member 2; Breast cancer resistance protein; CDw338; Mitoxantrone resistance-associated protein; Placenta-specific ATP-binding cassette transporter; Urate exporter; CD antigen CD338
Species	Human
Expression System	E. coli
Accession	Q9UNQ0
Molecular Weight	Predictes a molecular mass of 10.06 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 10 kDa band.

Product Information

Sequence Region	557-630
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 557-630 aa (Q9UNQ0) 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 ABCG2 (557-630) Fragment is a high-purity, stable protein fragment derived from the Broad substrate specificity ATP-binding cassette transporter ABCG2. This 74-amino acid segment is engineered for solubility and structural integrity, making it an ideal tool for studying the biochemical and structural properties of this critical multidrug resistance and xenobiotic efflux transporter. The full-length ABCG2 protein is a broad-specificity ATP-dependent transporter belonging to the ATP-binding cassette (ABC) family, playing essential roles in cellular detoxification and homeostasis. It actively extrudes a wide range of physiological compounds, dietary toxins, and xenobiotics, including protoporphyrin IX, urate, steroids, and multiple drugs such as mitoxantrone and doxorubicin, contributing to multidrug resistance in cancer cells. ABCG2 is also involved in porphyrin homeostasis, sphingosine-1-phosphate efflux, and the secretion of vitamins like riboflavin and biotin into milk. Localized to the cell membrane, particularly the apical membrane in certain tissues, and enriched in lipid rafts, it functions in renal and extrarenal urate excretion, limits drug penetration into the brain and fetus, and may play roles in stem cell self-renewal and immune response by exporting itaconate. This fragment corresponds to residues 557-630, selected for its stability and solubility to facilitate structural and functional studies.