Recombinant SO2A1 protein (His tag)

Catalog Number	545616
Synonyms	SLCO2A1; OATP2A1; PHOAR2; Prostaglandin transporter; PGT; Solute carrier family 21 member 2; SLC21A2
Species	Human
Expression System	E. coli
Accession	Q92959
Molecular Weight	Predictes a molecular mass of 12.33 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	416-518
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 416-518 aa (Q92959) 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 SLCO2A1 (Prostaglandin Transporter) Fragment (aa 416-518) is a high-purity protein designed for studying the Kazal-like functional domain. This fragment enables targeted investigation of prostaglandin transport mechanisms and anion channel functions in cellular and biochemical assays. The full-length Solute carrier organic anion transporter family member 2A1 (SLCO2A1) is a multi-pass membrane protein that mediates cellular transport of prostaglandins (PGE2, PGF2α, PGD2) and thromboxanes. It plays crucial roles in regulating intraocular pressure, gastric acid secretion, renal salt/water transport, vascular tone, and fever through prostaglandin clearance and signal termination. SLCO2A1 functions as a bidirectional transporter using lactate as a counter-substrate and serves as an essential component of large-conductance anion channels (Maxi-Cl) involved in cell volume regulation and ATP/glutamate release. The protein localizes to the cell membrane, basal membrane of Sertoli cells, and intracellular compartments, facilitating both transcellular prostaglandin transport and vesicular uptake in various tissues including kidney, ovaries, and testis.