SLC21A3 Protein, Human (Sf9, His, MBP, FLAG)

Cat. No.:	HY-P702019
Synonyms:	SLCO1A2; Solute carrier organic anion transporter family member 1A2; OATP-A; Organic anion-transporting polypeptide 1; OATP-1; Sodium-independent organic anion transporter; Solute carrier family 21 member 3
Species:	Human
Source:	Sf9 insect cells
Accession:	P46721 (G2-L670)
Gene ID:	6579
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	SLC21A3, a Na(+)-independent transporter, facilitates the cellular uptake of a diverse array of organic anions, including unconjugated and conjugated bile salts such as cholate, deoxycholate, taurocholate, and glycocholate, at the plasma membrane. This transporter is crucial for the intestinal absorption of bile acids and is responsible for the uptake of dehydroepiandrosterone 3-sulfate (DHEAS), estrone 3-sulfate, 17beta-estradiol 17-O-(beta-D-glucuronate), and all-trans-retinol (atROL) across the human retinal pigment epithelium, essential for maintaining visual cycle integrity and vision. Additionally, SLC21A3 mediates the transport of clinically used drugs, thyroid hormones (T3 and T4), prostaglandin E2, and neuropeptides such as substance P/TAC1 and vasoactive intestinal peptide/VIP. It is implicated in blood-brain and -cerebrospinal fluid barrier transport of organic anions and signal mediators, hormone uptake by neural cells, and potentially contributes to the regulation of organic compound transport in the testis across the blood-testis barrier. Furthermore, SLC21A3 exhibits a pH-sensitive substrate specificity, with hydrogencarbonate/HCO3(-) acting as the probable counteranion in the exchange for organic anions, suggesting a role in substrate transport in acidic microenvironments. The protein may also play a role in the plasma and tissue distribution of chemotherapeutic drugs such as methotrexate and paclitaxel.

Caution: Product has not been fully validated for medical applications. For research use only.

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