10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SLCO2B1 Rabbit pAb

Catalog # AP96597

Product Information

Application	WB
Primary Accession	O94956
Other Accession	O94956
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	76699
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLCO2B1
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the organo anion transporter (TC 2.A.60) family. Contains 1 Kazal-like domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SLCO2B1 (solute carrier organic anion transporter family member 2B1), or Organic anion transporter B (OATP-B) mediates sodium-independent transport of organic anions. Unlike other related proteins, SLCO2B1 is expressed in many tissues, including liver, placenta, brain, heart and intestine. SLCO2B1 plays a role in the uptake of steroids and a number of drugs such as statins.

Additional Information

Gene ID	11309
Other Names	OATP-B; OATP2B1; OATPB; SLC21A9; moat1; SO2B1_HUMAN; SLCO2B1; Organic anion transporter B (OATP-B); Organic anion transporter polypeptide-related protein 2 (OATP-RP2 | OATPRP2); Organic anion transporting polypeptide 2B1 (OATP2B1); Solute carrier family 21 member 9; KIAA0880; SO2B1_MOUSE; SO2B1_RAT; Organic anion transporter moatp1; solute carrier organic anion transporter family member 2B1; solute carrier family 21 (organic anion transporter), member 9; solute carrier organic anion transporter family, member 2B1
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SLCO2B1 (HGNC:10962)
Function	Mediates the Na(+)-independent transport of steroid sulfate conjugates and other specific organic anions (PubMed:10873595, PubMed:11159893, PubMed:11932330, PubMed:12724351, PubMed:14610227, PubMed:16908597, PubMed:18501590, PubMed:20507927, PubMed:22201122, PubMed:23531488, PubMed:25132355, PubMed:26383540, PubMed:27576593, PubMed:28408210, PubMed:29871943, PubMed:34628357). Responsible for the transport of estrone 3-sulfate (E1S) through the basal membrane of syncytiotrophoblast, highlighting a potential role in the placental absorption of fetal-derived sulfated steroids including the steroid hormone precursor dehydroepiandrosterone sulfate (DHEA-S) (PubMed:11932330, PubMed:12409283). Also facilitates the uptake of sulfated steroids at the basal/sinusoidal membrane of hepatocytes, therefore accounting for the major part of organic anions clearance of liver (PubMed:11159893). Mediates the intestinal uptake of sulfated steroids (PubMed:12724351, PubMed:28408210). Mediates the uptake of the neurosteroids DHEA-S and pregnenolone sulfate (PregS) into the endothelial cells of the blood-brain barrier as the first step to enter the brain (PubMed:16908597, PubMed:25132355). Also plays a role in the reuptake of neuropeptides such as substance P/TAC1 and vasoactive intestinal peptide/VIP released from retinal neurons (PubMed:25132355). May act as a heme transporter that promotes cellular iron availability via heme oxygenase/HMOX2 and independently of TFRC (PubMed:35714613). Also transports heme by-product coproporphyrin III (CPIII), and may be involved in their hepatic disposition (PubMed:26383540). Mediates the uptake of other substrates such as prostaglandins D2 (PGD2), E1 (PGE1) and E2 (PGE2), taurocholate, L-thyroxine, leukotriene C4 and thromboxane B2 (PubMed:10873595, PubMed:14610227, PubMed:19129463, PubMed:29871943, Ref.25). May contribute to regulate the transport of organic compounds in testis across the blood-testis-barrier (Probable). Shows a pH-sensitive substrate specificity which may be ascribed to the protonation state of the binding site and leads to a stimulation of substrate transport in an acidic microenvironment (PubMed:14610227, PubMed:19129463, PubMed:22201122). The exact transport mechanism has not been yet deciphered but most likely involves an anion exchange, coupling the cellular uptake of organic substrate with the efflux of an anionic compound (PubMed:19129463, PubMed:20507927, PubMed:26277985). Hydrogencarbonate/HCO3(-) acts as a probable counteranion that exchanges for organic anions (PubMed:19129463). Cytoplasmic glutamate may also act as counteranion in the placenta (PubMed:26277985). An inwardly directed proton gradient has also been proposed as the driving force of E1S uptake with a (H(+):E1S) stoichiometry of (1:1) (PubMed:20507927).
Cellular Location	Cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Note=Expressed at the basal membrane of hepatocytes, syncytiotrophoblast and Sertoli cells (PubMed:11159893, PubMed:11932330, PubMed:12409283, PubMed:35307651). Localized to the basolateral membrane of enterocytes (PubMed:28408210). Also found at the apical membrane of enterocytes (PubMed:12724351, PubMed:28408210)
Tissue Location	Strongly expressed in the liver, at the sinusoidal membrane of the hepatocytes (PubMed:10873595, PubMed:11159893, PubMed:23531488). Expressed in the kidney (PubMed:11159893). Expressed in placental

trophoblasts and syncytiotrophoblast (PubMed:11159893, PubMed:11932330, PubMed:12409283, PubMed:26277985). Expressed in the small intestine (PubMed:10873595, PubMed:11159893, PubMed:12724351, PubMed:23531488, PubMed:28408210). Expressed in the blood-brain barrier, in endothelial cells of brain capillaries (PubMed:11159893, PubMed:25132355). Expressed in the retina, in the inner nuclear layer and the inner plexiform layer (PubMed:25132355). Expressed in skelettal muscles (PubMed:23531488). In testis, primarily localized to the basal membrane of Sertoli cells and weakly expressed within the tubules (PubMed:10873595, PubMed:11159893, PubMed:35307651). Also expressed in pancreas, lung, heart, colon, ovary and spleen (PubMed:10873595, PubMed:11159893). Expressed in fetal brain, heart, kidney, liver, lung, skeletal muscle, spleen and pancreas (PubMed:10873595) [Isoform 3]: Predominant isoform compared to isoform 1 in liver. Also expressed in small intestine duodenum, kidney, brain, placenta, and skeletal muscle.

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