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SLCO1B1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9609c

Product Information

Application	WB, E
Primary Accession	Q9Y6L6
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23028
Calculated MW	76449
Antigen Region	267-293

Additional Information

Gene ID	10599
Other Names	Solute carrier organic anion transporter family member 1B1, Liver-specific organic anion transporter 1, LST-1, OATP-C, Sodium-independent organic anion-transporting polypeptide 2, OATP-2, Solute carrier family 21 member 6, SLCO1B1, LST1, OATP1B1, OATP2, OATPC, SLC21A6
Target/Specificity	This SLCO1B1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 267-293 amino acids from the Central region of human SLCO1B1.
Dilution	WB~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SLCO1B1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLCO1B1
Synonyms	LST1, OATP1B1, OATP2, OATPC, SLC21A6

Function	Mediates the Na(+)-independent uptake of organic anions (PubMed:10358072, PubMed:15159445, PubMed:17412826). Shows broad substrate specificity, can transport both organic anions such as bile acid taurocholate (cholyltaurine) and conjugated steroids (dehydroepiandrosterone 3-sulfate, 17-beta-glucuronosyl estradiol, and estrone 3-sulfate), as well as eicosanoids (prostaglandin E2, thromboxane B2, leukotriene C4, and leukotriene E4), and thyroid hormones (T4/L-thyroxine, and T3/3,3',5'-triiodo-L-thyronine) (PubMed:10358072, PubMed:10601278, PubMed:10873595, PubMed:11159893, PubMed:12196548, PubMed:12568656, PubMed:15159445, PubMed:15970799, PubMed:16627748, PubMed:17412826, PubMed:19129463, PubMed:26979622). Can take up bilirubin glucuronides from plasma into the liver, contributing to the detoxification-enhancing liver-blood shuttling loop (PubMed:22232210). Involved in the clearance of endogenous and exogenous substrates from the liver (PubMed:10358072, PubMed:10601278). Transports coproporphyrin I and III, by-products of heme synthesis, and may be involved in their hepatic disposition (PubMed:26383540). May contribute to regulate the transport of organic compounds in testes across the blood-testis-barrier (Probable). Can transport HMG-CoA reductase inhibitors (also known as statins), such as pravastatin and pitavastatin, a clinically important class of hypolipidemic drugs (PubMed:10601278, PubMed:15159445, PubMed:15970799). May play an important role in plasma and tissue distribution of the structurally diverse chemotherapeutic drug methotrexate (PubMed:23243220). May also transport antihypertension agents, such as the angiotensin-converting enzyme (ACE) inhibitor prodrug enalapril, and the highly selective angiotensin II AT1-receptor antagonist valsartan, in the liver (PubMed:16624871, PubMed:16627748). Shows a pH-sensitive substrate specificity towards prostaglandin E2 and T4 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:19129463). Hydrogencarbonate/HCO3(-) acts as the probable counteranion that exchanges for organic anions (PubMed:19129463).
Cellular Location	Basolateral cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Note=Detected in basolateral membranes of hepatocytes (PubMed:12196548). Localized to the basal membrane of Sertoli cells (PubMed:35307651).
Tissue Location	Highly expressed in liver, at the basolateral membranes of centrilobular hepatocytes (PubMed:10358072, PubMed:10601278, PubMed:10873595, PubMed:12196548, PubMed:22232210) Expressed in liver (at protein level) (PubMed:15159445). Expressed in fetal liver (PubMed:10873595). Not detected in heart, brain, placenta, lung, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, testis, ovary, small intestine, colon and leukocyte (PubMed:10358072, PubMed:10873595). In testis, primarily localized to the basal membrane of Sertoli cells and weakly expressed in Leydig cells and within the tubules (PubMed:35307651).

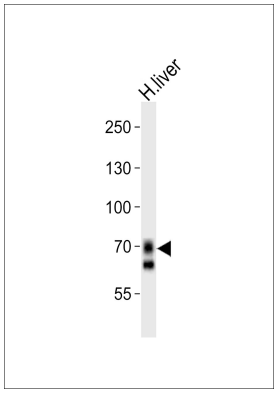
Background

AP9609c is a liver-specific member of the organic anion transporter family. This protein is a transmembrane receptor that mediates the sodium-independent uptake of numerous endogenous compounds including bilirubin, 17-beta-glucuronosyl estradiol and leukotriene C4. This protein is also involved in the removal of drug compounds such as statins, bromosulfophthalein and rifampin from the blood into the hepatocytes. Polymorphisms in the gene encoding this protein are associated with impaired transporter function.

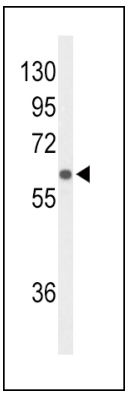
References

Jung, D., et al. J. Biol. Chem. 276(40):37206-37214(2001)
Cui, Y., et al. J. Biol. Chem. 276(13):9626-9630(2001)
Konig, J., et al. J. Biol. Chem. 275(30):23161-23168(2000)

Images



Western blot analysis of lysate from human liver tissue lysate, using SLCO1B1 Antibody (Center)(Cat. #AP9609c). AP9609c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



Western blot analysis of SLCO1B1 Antibody (Center) (Cat. #AP9609c) in HepG2 cell line lysates (35ug/lane). SLCO1B1 (arrow) was detected using the purified Pab.