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OATP1 Polyclonal Antibody

Catalog # AP71404

Product Information

Application	WB, IHC-P
Primary Accession	P46721
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	74145

Additional Information

Gene ID	6579
Other Names	SLCO1A2; OATP; OATP1; OATP1A2; SLC21A3; 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
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

Name	SLCO1A2
Synonyms	OATP, OATP1, OATP1A2, SLC21A3
Function	Na(+)-independent transporter that mediates the cellular uptake of a broad range of organic anions such as the endogenous bile salts cholate and deoxycholate, either in their unconjugated or conjugated forms (taurocholate and glycocholate), at the plasmam membrane (PubMed:19129463, PubMed:7557095). Responsible for intestinal absorption of bile acids (By similarity). Transports dehydroepiandrosterone 3-sulfate (DHEAS), a major circulating steroid secreted by the adrenal cortex, as well as estrone 3-sulfate and 17beta-estradiol 17-O-(beta-D-glucuronate) (PubMed:11159893, PubMed:12568656, PubMed:19129463, PubMed:23918469, PubMed:25560245, PubMed:9539145). Mediates apical uptake of all-trans-retinol (atROL) across human retinal pigment epithelium, which is essential to maintaining the integrity of the visual cycle and thus vision (PubMed:25560245). Involved in the uptake of clinically used drugs

(PubMed:17301733, PubMed:20686826, PubMed:27777271). Capable of thyroid hormone transport (both T3 or 3,3',5'-triiodo-L-thyronine, and T4 or L-tyroxine) (PubMed:19129463, PubMed:20358049). Also transports prostaglandin E2 (PubMed:19129463). Plays roles in blood-brain and -cerebrospinal fluid barrier transport of organic anions and signal mediators, and in hormone uptake by neural cells (By similarity). May also play a role in the reuptake of neuropeptides such as substance P/TAC1 and vasoactive intestinal peptide/VIP released from retinal neurons (PubMed:25132355). May play an important role in plasma and tissue distribution of the structurally diverse chemotherapeutic drugs methotrexate and paclitaxel (PubMed:23243220). 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:19129463). Hydrogencarbonate/HCO3(-) acts as the probable counteranion that exchanges for organic anions (PubMed:19129463). May contribute to regulate the transport of organic compounds in testis across the blood-testis-barrier (Probable).

Cellular Location

Cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Note=Localized to the basal membrane of Sertoli cells.

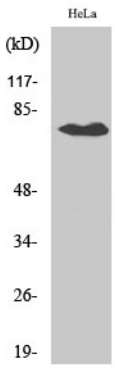
Tissue Location

Higher expression in the brain than in liver and kidney (PubMed:15632119, PubMed:7557095, PubMed:9539145). Expressed in brain neurons in both cortex and hippocampus (PubMed:10873595, PubMed:25132355). Expressed in placental trophoblasts (PubMed:12409283). Also expressed in lung and testes at lower levels (PubMed:7557095). Expressed in the eye (at protein level) (PubMed:25560245). Expressed in the retina in the outer and inner nuclear layers, the inner plexiform layer and the ganglion cell layer (PubMed:25132355). Expressed in liver and prostate (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). Expressed in fetal brain and liver (PubMed:10873595).

Background

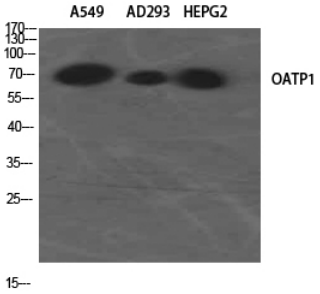
Mediates the Na(+)-independent transport of organic anions such as sulfobromophthalein (BSP) and conjugated (taurocholate) and unconjugated (cholate) bile acids (By similarity). Selectively inhibited by the grapefruit juice component naringin.

Images



Western Blot analysis of various cells using OATP1 Polyclonal Antibody diluted at 1：2000

Western Blot analysis of A549 AD293 HEPG2 using OATP1 Polyclonal Antibody. Antibody was diluted at 1:2000



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