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SLC22A11 Rabbit pAb

Catalog # AP96498

Product Information

Application	WB
Primary Accession	Q9NSA0
Other Accession	Q9NSA0
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59972
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC22A11
Epitope Specificity	481-550/550
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 major facilitator (TC 2.A.1) superfamily. Organic cation transporter (TC 2.A.1.19) family.
Post-translational modifications	N-glycosylated. Contains several complex-type N-glycans.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene is involved in the sodium-independent transport and excretion of organic anions, some of which are potentially toxic. The encoded protein is an integral membrane protein and is found mainly in the kidney and in the placenta, where it may act to prevent potentially harmful organic anions from reaching the fetus. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2015]

Additional Information

Gene ID	55867
Other Names	OAT4; hOAT4; S22AB_HUMAN; SLC22A11; Organic anion transporter 4 (OAT4); Organic anion:dicarboxylate exchanger OAT4; solute carrier family 22 member 11; solute carrier family 22 (organic anion/urate transporter), member 11
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	SLC22A11 (HGNC:18120)
Synonyms	OAT4
Function	Antiporter that mediates the transport of conjugated steroids and other specific organic anions at the basal membrane of syncytiotrophoblast and at the apical membrane of proximal tubule epithelial cells, in exchange for anionic compounds (PubMed:10660625, PubMed:11907186, PubMed:15037815, PubMed:15102942, PubMed:15291761, PubMed:15576633, PubMed:17229912, PubMed:18501590, PubMed:26277985, PubMed:28027879). May be responsible for placental absorption of fetal- derived steroid sulfates such as estrone sulfate (E1S) and the steroid hormone precursor dehydroepiandrosterone sulfate (DHEA-S), as well as clearing waste products and xenobiotics from the fetus (PubMed:12409283). Maybe also be involved in placental urate homeostasis (PubMed:17229912). Facilitates the renal reabsorption of organic anions such as urate and derived steroid sulfates (PubMed:15037815, PubMed:17229912). Organic anion glutarate acts as conteranion for E1S renal uptake (PubMed:15037815, PubMed:17229912). Possible transport mode may also include DHEA-S/E1S exchange (PubMed:28027879). Also interacts with inorganic anions such as chloride and hydroxyl ions, therefore possible transport modes may include E1S/Cl(-), E1S/OH(-), urate/Cl(-) and urate/OH(-) (PubMed:17229912). Also mediates the transport of prostaglandin E2 (PGE2) and prostaglandin F2-alpha (PGF2-alpha) and may be involved in their renal excretion (PubMed:11907186). Also able to uptake anionic drugs, diuretics, bile salts and ochratoxin A (PubMed:10660625, PubMed:26277985). Mediates the unidirectional efflux of glutamate and aspartate (PubMed:28027879). Glutamate efflux down its transmembrane gradient may drive SLC22A11/OAT4-mediated placental uptake of E1S (PubMed:26277985).
Cellular Location	Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein Note=Expressed at the apical membrane of the proximal tubule epithelial cells (PubMed:15037815). Expressed at the basal membrane of the syncytiotrophoblast (PubMed:12409283).
Tissue Location	Expressed in placental trophoblasts, syncytiotrophoblast and cytotrophoblast (PubMed:10660625, PubMed:12409283, PubMed:26277985). Also located in the proximal tubules in kidneys (PubMed:10660625, PubMed:15037815, PubMed:26277985)

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