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Anti-SLC22A6 Antibody

Catalog # ABO10996

Product Information

Application	WB, IHC-P
Primary Accession	Q4U2R8
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Solute carrier family 22 member 6(SLC22A6) detection. Tested with WB, IHC-P in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	9356
Other Names	Solute carrier family 22 member 6, Organic anion transporter 1, hOAT1, PAH transporter, hPAHT, Renal organic anion transporter 1, hROAT1, SLC22A6, OAT1, PAHT
Calculated MW	61816
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Cell membrane ; Multi-pass membrane protein .
Tissue Specificity	Strongly expressed in kidney and to a lower extent in liver, skeletal muscle, brain and placenta. Found at the basolateral membrane of the proximal tubule. .
Source	Eukaryota
Protein Name	Solute carrier family 22 member 6
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human SLC22A6(534-550aa QKYMVPLQASAQEKNGL), different from the related rat sequence by three amino acids.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the major facilitator (TC 2.A.1) superfamily. Organic cation transporter (TC 2.A.1.19) family.

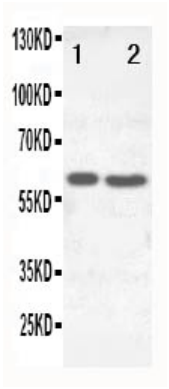
Protein Information

Name	SLC22A6 (HGNC:10970)
Synonyms	OAT1, PAHT
Function	Secondary active transporter that functions as a Na(+)- independent organic anion (OA)/dicarboxylate antiporter where the uptake of one molecule of OA into the cell is coupled with an efflux of one molecule of intracellular dicarboxylate such as 2-oxoglutarate or glutarate (PubMed:11669456, PubMed:11907186, PubMed:14675047, PubMed:22108572, PubMed:23832370, PubMed:28534121, PubMed:9950961). Mediates the uptake of OA across the basolateral side of proximal tubule epithelial cells, thereby contributing to the renal elimination of endogenous OA from the systemic circulation into the urine (PubMed:9887087). Functions as a biopterin transporters involved in the uptake and the secretion of coenzymes tetrahydrobiopterin (BH4), dihydrobiopterin (BH2) and sepiapterin to urine, thereby determining baseline levels of blood biopterins (PubMed:28534121). Transports prostaglandin E2 (PGE2) and prostaglandin F2-alpha (PGF2-alpha) and may contribute to their renal excretion (PubMed:11907186). Also mediates the uptake of cyclic nucleotides such as cAMP and cGMP (PubMed:26377792). Involved in the transport of neuroactive tryptophan metabolites kynurenate (KYNA) and xanthurenate (XA) and may contribute to their secretion from the brain (PubMed:22108572, PubMed:23832370). May transport glutamate (PubMed:26377792). Also involved in the disposition of uremic toxins and potentially toxic xenobiotics by the renal organic anion secretory pathway, helping reduce their undesired toxicological effects on the body (PubMed:11669456, PubMed:14675047). Uremic toxins include the indoxyl sulfate (IS), hippurate/N- benzoylglycine (HA), indole acetate (IA), 3-carboxy-4- methyl-5-propyl- 2-furanpropionate (CMPF) and urate (PubMed:14675047, PubMed:26377792). Xenobiotics include the mycotoxin ochratoxin (OTA) (PubMed:11669456). May also contribute to the transport of organic compounds in testes across the blood-testis-barrier (PubMed:35307651).
Cellular Location	Basolateral cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Note=Localized to the basolateral membrane of renal proximal tubular cells (PubMed:9887087) Localized to the basal membrane of Sertoli cells (PubMed:35307651)
Tissue Location	Strongly expressed in kidney (PubMed:10049739, PubMed:10462545, PubMed:10964714, PubMed:9887087, PubMed:9950961) Expressed at lower level in liver, skeletal muscle, brain and placenta (PubMed:10049739, PubMed:10462545, PubMed:9887087, PubMed:9950961). In kidney, found at the basolateral membrane of the proximal tubule (PubMed:9887087). In testis, primarily localized to the basal membrane of Sertoli cells and weakly expressed in Leydig cells and vascular endothelial cells (PubMed:35307651).

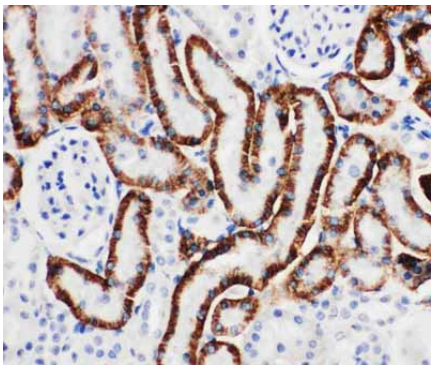
Background

SLC22A6(Solute carrier family 22(organic anion transporter), member 6), also called OAT1 or PAHT, is a protein that in humans is encoded by the SLC22A6 gene, which is also a member of the organic anion transporter(OAT) family of proteins. OAT1 is a transmembrane protein that is expressed in the brain, the placenta, the eyes, smooth muscles, and the basolateral membrane of proximal tubular cells of the kidneys. The SLC22A6 gene is mapped on 11q12.3. It plays a central role in renal organic anion transport. Along with OAT3, OAT1 mediates the uptake of a wide range of relatively small and hydrophilic organic anions from plasma into the cytoplasm of the proximal tubular cells of the kidneys. The SLC22A6 gene contains 10 exons and spans 8.2 kb. OAT1 functions as organic anion exchanger. When the uptake of one molecule of an organic anion is transported into a cell by an OAT1 exchanger, one molecule of an endogenous dicarboxylic acid(such as glutarate, ketoglutarate, etc) is simultaneously transported out of the cell. PAH uptake in Xenopus oocytes injected with OAT1 mRNA was demonstrated by Race et al.

Images



Anti-SLC22A6 antibody, ABO10996, Western blottingLane 1: HT1080 Cell Lysate Lane 2: HELA Cell Lysate



Anti-SLC22A6 antibody, ABO10996, IHC(P)IHC(P): Rat Kidney Tissue

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