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SLC22A6 Antibody (C-Term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9237B

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	Q4U2R8
Other Accession	NP_004781
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23819
Calculated MW	61816
Antigen Region	513-541

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
Target/Specificity	This SLC22A6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 513-541 amino acids from the C-terminal region of human SLC22A6.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 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	SLC22A6 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

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

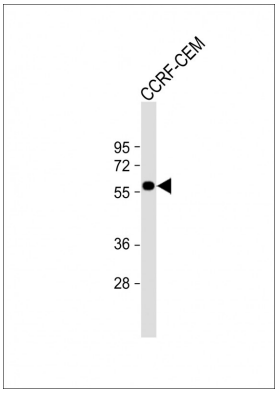
The protein is involved in the sodium-dependent transport and excretion of organic anions, some of which are potentially toxic. The encoded protein is an integral membrane protein and may be localized to the basolateral membrane.

References

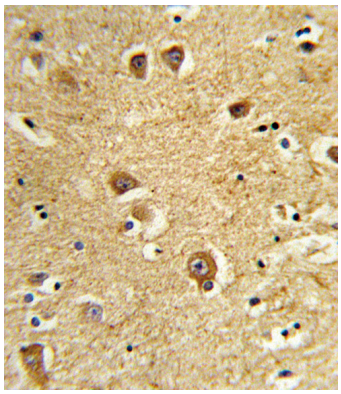
Hong,M., et.al, J. Pharmacol. Exp. Ther. 332 (2), 650-658 (2010)
Shin,H.J., et.al, Clin. Chim. Acta 411 (1-2), 99-105 (2010)

Images

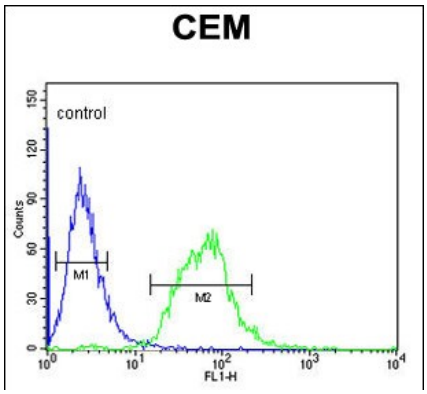
Anti-SLC22A6 Antibody (C-Term) at 1:1000 dilution +



CCRF-CEM whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 62 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human brain tissue reacted with SLC22A6 Antibody (C-Term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



SLC22A6 Antibody (C-Term) (Cat. #AP9237b) flow cytometric analysis of CEM cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.