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Anti-SLC22A2 Picoband Antibody

Catalog # ABO12085

Product Information

Application	WB, IHC-P
Primary Accession	O15244
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Solute carrier family 22 member 2(SLC22A2) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6582
Other Names	Solute carrier family 22 member 2, Organic cation transporter 2, hOCT2, SLC22A2, OCT2
Calculated MW	62581
Application Details	Western blot, 0.1-0.5 □g/ml, Mouse, Rat, Human
Subcellular Localization	Membrane ; Multi-pass membrane protein .
Tissue Specificity	Mainly expressed in kidney. Localized at the luminal membrane and basolateral membrane of kidney distal tubule and proximal tubules. To a lower extent, expressed in neurons of the cerebral cortex and in various subcortical nuclei (at protein levels). Also detected in secretory phase endometrium; in scattered cells in the stroma. .
Source	Eukaryota
Protein Name	Solute carrier family 22 member 2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human SLC22A2 (524-555aa ETIEEAENMQRPRKNKEKMIYLQVQKLDIPLN), different from the related mouse sequence by five amino acids, and from the related rat sequence by seven 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.

Protein Information

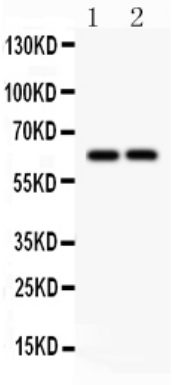
Name	SLC22A2 (HGNC:10966)
Synonyms	OCT2
Function	Electrogenic voltage-dependent uniporter that mediates the transport of a variety of organic cations such as endogenous bioactive amines, cationic drugs and xenobiotics (PubMed:9260930, PubMed:9687576). Functions as a Na(+)-independent, bidirectional uniporter (PubMed:21128598, PubMed:9687576). Cation cellular uptake or release is driven by the electrochemical potential, i.e. membrane potential and concentration gradient (PubMed:15212162, PubMed:9260930, PubMed:9687576). However, may also engage electroneutral cation exchange when saturating concentrations of cation substrates are reached (By similarity). Predominantly expressed at the basolateral membrane of hepatocytes and proximal tubules and involved in the uptake and disposition of cationic compounds by hepatic and renal clearance from the blood flow (PubMed:15783073). Implicated in monoamine neurotransmitters uptake such as histamine, dopamine, adrenaline/epinephrine, noradrenaline/norepinephrine, serotonin and tyramine, thereby supporting a physiological role in the central nervous system by regulating interstitial concentrations of neurotransmitters (PubMed:16581093, PubMed:17460754, PubMed:9687576). Also capable of transporting dopaminergic neuromodulators cyclo(his- pro), salsolinol and N-methyl-salsolinol, thereby involved in the maintenance of dopaminergic cell integrity in the central nervous system (PubMed:17460754). Mediates the bidirectional transport of acetylcholine (ACh) at the apical membrane of ciliated cell in airway epithelium, thereby playing a role in luminal release of ACh from bronchial epithelium (PubMed:15817714). Also transports guanidine and endogenous monoamines such as vitamin B1/thiamine, creatinine and N-1- methylnicotinamide (NMN) (PubMed:12089365, PubMed:15212162, PubMed:17072098, PubMed:24961373, PubMed:9260930). Mediates the uptake and efflux of choline (PubMed:9260930). Mediates the bidirectional transport of polyamine agmatine and the uptake of polyamines putrescine and spermidine (PubMed:12538837, PubMed:21128598). Able to transport non-amine endogenous compounds such as prostaglandin E2 (PGE2) and prostaglandin F2-alpha (PGF2-alpha) (PubMed:11907186). Also involved in the uptake of xenobiotic 4-(4-(dimethylamino)styryl)-N-methylpyridinium (ASP) (PubMed:12395288, PubMed:16394027). May contribute to regulate the transport of organic compounds in testis across the blood-testis- barrier (Probable).
Cellular Location	Basolateral cell membrane {ECO:0000250|UniProtKB:Q9R0W2}; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Note=Localized to the basal membrane of Sertoli cells (PubMed:35307651). Localized to the basolateral membrane of proximal tubule (PubMed:11912245). Localized to the luminal/apical membrane of distal tubule (PubMed:9260930). Localized to the luminal/apical membrane of ciliated epithelial cells in bronchi (PubMed:15817714).
Tissue Location	Mainly expressed in kidney, in the cortex and medulla (PubMed:11912245,

PubMed:12089365, PubMed:9260930). Localized in testis, mostly to peritubular myoid cells and Leydig cells and also detected along the basal membrane of Sertoli cells (PubMed:12089365, PubMed:35307651). Expressed in brain, in neurons of the cerebral cortex and in various subcortical nuclei (PubMed:12089365, PubMed:9260930, PubMed:9687576). In the brain, also detected in the dopaminergic regions of the substantia nigra (PubMed:17460754). Expressed in tracheal and bronchial ciliated epithelium in the respiratory tract (PubMed:15817714). Also detected in secretory phase endometrium, in scattered stromal cells (PubMed:17393420). Expressed in spleen, placenta, small intestine and spinal cord (PubMed:12089365, PubMed:9260930). Weakly expressed in prostate, uterus and lung (PubMed:12089365).

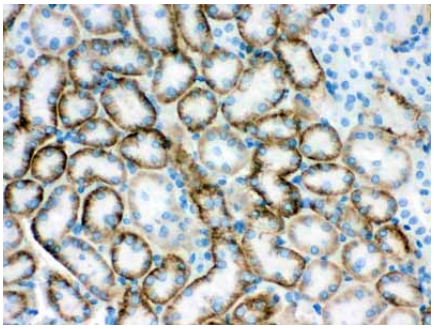
Background

SLC22A2 is also known as OCT2. It is mapped to 6q25.3. Polyspecific organic cation transporters in the liver, kidney, intestine, and other organs are critical for elimination of many endogenous small organic cations as well as a wide array of drugs and environmental toxins. This gene is one of three similar cation transporter genes located in a cluster on chromosome 6. The encoded protein contains twelve putative transmembrane domains and is a plasma integral membrane protein. It is found primarily in the kidney, where it may mediate the first step in cation reabsorption.

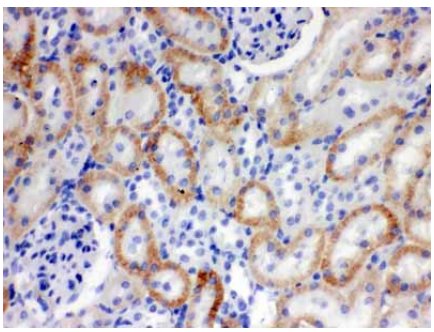
Images



Anti- SLC22A2 Picoband antibody, ABO12085, Western blottingAll lanes: Anti SLC22A2 (ABO12085) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Mouse Brain Tissue Lysate at 50ugPredicted bind size: 63KDObserved bind size: 63KD



Anti- SLC22A2 Picoband antibody, ABO12085, IHC(P)IHC(P): Mouse Kidney Tissue



Anti- SLC22A2 Picoband antibody, ABO12085, IHC(P)IHC(P): Rat Kidney Tissue

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