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SLC22A3 Rabbit pAb

Catalog # AP98741

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O75751
Other Accession	O75751
Predicted	Rat, Human, Mouse, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61280
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC22A3
Epitope Specificity	301-400/556
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 superfamily. Organic cation transporter family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	6581
Other Names	EMT; EMTH; OCT3; Orct3; Slca22a3; S22A3_HUMAN; SLC22A3; Extraneuronal monoamine transporter (EMT); Organic cation transporter 3 (OCT3); S22A3_MOUSE; S22A3_RAT; solute carrier family 22 member 3; solute carrier family 22 (extraneuronal monoamine transporter), member 3; solute carrier family 22 (organic cation transporter), member 3; organic cation transporter 3; extraneuronal monoamine transporter
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	SLC22A3 (HGNC:10967)
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:10196521, PubMed:10966924, PubMed:12538837, PubMed:17460754, PubMed:20858707). Cation cellular uptake or release is driven by the electrochemical potential, i.e. membrane potential and concentration gradient (PubMed:10966924). Functions as a Na(+)- and Cl(-)-independent, bidirectional uniporter (PubMed:12538837). Implicated in monoamine neurotransmitters uptake such as dopamine, adrenaline/epinephrine, noradrenaline/norepinephrine, histamine, serotonin and tyramine, thereby supporting a role in homeostatic regulation of aminergic neurotransmission in the brain (PubMed:10196521, PubMed:16581093, PubMed:20858707). Transports dopaminergic neuromodulators cyclo(his- pro) and salsolinol with low efficiency (PubMed:17460754). May be involved in the uptake and disposition of cationic compounds by renal clearance from the blood flow (PubMed:10966924). May contribute to regulate the transport of cationic compounds in testis across the blood-testis-barrier (Probable). Mediates the transport of polyamine spermidine and putrescine (By similarity). Mediates the bidirectional transport of polyamine agmatine (PubMed:12538837). Also transports guanidine (PubMed:10966924). Mediates the transport of choline (PubMed:40972734). May mediate intracellular transport of organic cations due to its localization on endomembranes, thereby contributing to amine metabolism and intracellular signaling (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Mitochondrion membrane {ECO:0000250|UniProtKB:O88446}. Endomembrane system {ECO:0000250|UniProtKB:O88446}. Nucleus membrane {ECO:0000250|UniProtKB:O88446}. Nucleus outer membrane {ECO:0000250|UniProtKB:O88446}. Note=Localized to the apical/brush border membrane of enterocytes (PubMed:16263091). Localized to the luminal/apical membrane of ciliated epithelial cells in bronchi (PubMed:15817714). Localized to the basolateral membrane of intermediate cells in bronchi (PubMed:15817714). Localized to the entire plasma membrane of basal cells in bronchi (PubMed:15817714)
Tissue Location	Expressed in liver (PubMed:10196521, PubMed:9933568). Expressed in intestine (PubMed:16263091, PubMed:20858707). Expressed in kidney in proximal tubular cells (PubMed:10966924). Expressed in placenta (PubMed:10966924, PubMed:9933568). Expressed throughout the brain, including cerebral cortex, cerebrellum, substancia nigra, medulla oblongata, hippocampus, caudate nucleus, nucleus accumbens and pons with low levels of expression detected in nearly all brain regions (PubMed:10196521, PubMed:20858707). In testis, mostly localized to peritubular myoid cells and Leydig cells, and weakly expressed in developing germ cells (PubMed:35307651). Expressed in tracheal and bronchial epithelium of the respiratory tract, where it localizes to the apical membrane of ciliated cells, the entire membrane of basal cells and the basolateral membrane of intermediate cells (PubMed:15817714). Expressed in skeletal muscle, adrenal gland, heart, prostate, aorta, salivary gland, adrenal gland, uterus, lymph node, lung, trachea and spinal cord (PubMed:10196521, PubMed:20858707, PubMed:9933568). Expressed in fetal lung and liver (PubMed:9933568).

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