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OCT3 Polyclonal Antibody

Catalog # AP71415

Product Information

Application	WB, E
Primary Accession	O75751
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61280

Additional Information

Gene ID	6581
Other Names	SLC22A3; EMTH; OCT3; Solute carrier family 22 member 3; Extraneuronal monoamine transporter; EMT; Organic cation transporter 3
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

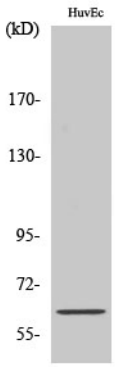
Name	SLC22A3 (HGNC:10967)
Function	Electrogenic voltage-dependent uniporter that mediates the transport of a variety of organic cations such as endogenous bioactive amines, cationic drugs and xenobiotics (PubMed:10196521, PubMed:10966924, PubMed:12538837, PubMed:17460754, PubMed:20858707). Cation cellular 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).

Background

Mediates potential-dependent transport of a variety of organic cations. May play a significant role in the disposition of cationic neurotoxins and neurotransmitters in the brain.

Images



Western Blot analysis of various cells using OCT3 Polyclonal Antibody

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.