

Anti-SLC22A7 Antibody
Catalog # ABO11499**Specification**

Anti-SLC22A7 Antibody - Product Information

Application	WB
Primary Accession	Q9Y694
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Solute carrier family 22 member 7 (SLC22A7) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SLC22A7 Antibody - Additional Information

Gene ID 10864

Other Names

Solute carrier family 22 member 7, Novel liver transporter, Organic anion transporter 2, hOAT2, SLC22A7, NLT, OAT2

Calculated MW

60026 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Basolateral cell membrane ; Multi- pass membrane protein . Apical side of the renal tubule.

Tissue Specificity

Expressed in liver and kidney. .

Protein Name

Solute carrier family 22 member 7

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 SLC22A7(514-530aa ETRQAQLPETIQDVERK), different from the related rat and mouse sequences by two amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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.

Anti-SLC22A7 Antibody - Protein Information

Name SLC22A7 ([HGNC:10971](#))

Synonyms NLT, OAT2

Function

[Isoform 2]: Functions as a Na(+)-independent bidirectional multispecific transporter (PubMed: [11327718](http://www.uniprot.org/citations/11327718), PubMed: [18216183](http://www.uniprot.org/citations/18216183), PubMed: [21446918](http://www.uniprot.org/citations/21446918), PubMed: [28945155](http://www.uniprot.org/citations/28945155)). Contributes to the renal and hepatic elimination of endogenous organic compounds from the systemic circulation into the urine and bile, respectively (PubMed: [11327718](http://www.uniprot.org/citations/11327718), PubMed: [25904762](http://www.uniprot.org/citations/25904762)). Capable of transporting a wide range of purine and pyrimidine nucleobases, nucleosides and nucleotides, with cGMP, 2'deoxyguanosine and GMP being the preferred substrates (PubMed: [11327718](http://www.uniprot.org/citations/11327718), PubMed: [18216183](http://www.uniprot.org/citations/18216183), PubMed: [26377792](http://www.uniprot.org/citations/26377792), PubMed: [28945155](http://www.uniprot.org/citations/28945155)). Functions as a pH- and chloride-independent cGMP bidirectional facilitative transporter that can regulate both intracellular and extracellular levels of cGMP and may be involved in cGMP signaling pathways (PubMed: [18216183](http://www.uniprot.org/citations/18216183), PubMed: [26377792](http://www.uniprot.org/citations/26377792)). Mediates orotate/glutamate bidirectional exchange and most likely display a physiological role in hepatic release of glutamate into the blood (PubMed: [21446918](http://www.uniprot.org/citations/21446918)). Involved in renal secretion and possible reabsorption of creatinine (PubMed: [25904762](http://www.uniprot.org/citations/25904762), PubMed: [28945155](http://www.uniprot.org/citations/28945155)). Able to uptake prostaglandin E2 (PGE2) and may contribute to PGE2 renal excretion (Probable). Also transports alpha-ketoglutarate and urate (PubMed: [11327718](http://www.uniprot.org/citations/11327718), PubMed: [26377792](http://www.uniprot.org/citations/26377792)). Apart from the orotate/glutamate exchange, the counterions for the uptake of other SLC22A7/OAT2 substrates remain to be identified (PubMed: [26377792](http://www.uniprot.org/citations/26377792)).

Cellular Location

[Isoform 2]: Basolateral cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Note=Localized to the basolateral side of the proximal tubules (PubMed:12023506, PubMed:25904762). Apical side of the renal tubule (PubMed:25904762).

Tissue Location

Mainly expressed in liver and kidney (PubMed:11327718, PubMed:18216183, PubMed:21446918, PubMed:25904762) In kidney, expressed in proximal tubular cells (PubMed:25904762). Also expressed in pancreas, small intestine, spinal cord, lung, brain and heart (PubMed:18216183). Expressed in fetal liver (PubMed:21446918)

Anti-SLC22A7 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-SLC22A7 Antibody - Images



Anti-SLC22A7 antibody, ABO11499, Western blotting
Lane 1: Rat Liver Tissue Lysate
Lane 2: Human Placenta Tissue Lysate
Lane 3: 293T Cell Lysate
Lane 4: SMMC Cell Lysate

Anti-SLC22A7 Antibody - Background

Solute carrier family 22 member 7, also called SLC22A7 or OAT2 is a protein that in humans is encoded by the SLC22A7 gene. This gene is mapped to 6p21.1. The protein encoded by this gene is involved in the sodium-independent transport and excretion of organic anions, some of which are potentially toxic. The encoded protein is an integral membrane protein and appears to be localized to the basolateral membrane of the kidney. This gene transports prostaglandin E2, prostaglandin F2, tetracycline, bumetanide, estrone sulfate, glutarate, dehydroepiandrosterone sulfate,

allopurinol, 5-fluorouracil, paclitaxel, L-ascorbic acid, salicylate, ethotrexate, and alpha-ketoglutarate.