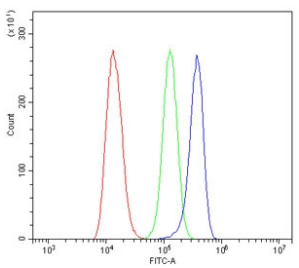
SLC22A3 Antibody / Organic Cation Transporter 3 Antibody (RQ5838)

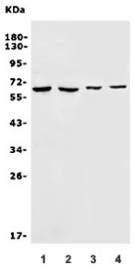
Catalog No.	Formulation	Size
RQ5838	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	O75751
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This SLC22A3 Antibody / Organic Cation Transporter 3 Antibody is available for research use only.



SLC22A3 Antibody HeLa Cell FACS. Flow cytometry analysis of fixed and permeabilized human HeLa cells using SLC22A3 Antibody / Organic Cation Transporter 3 Antibody at 1 ug/million cells following blocking with goat sera. Red histogram: unstained cells; green histogram: isotype control; blue histogram: SLC22A3 antibody. The clear rightward shift of the specific antibody signal relative to the controls demonstrates detection of endogenous SLC22A3 expression in HeLa cells. This SLC22A3 Antibody, also called Organic Cation Transporter 3 Antibody, is suitable for studies of organic cation transport, monoamine uptake, membrane transporter biology, and xenobiotic transport mechanisms.



SLC22A3 Antibody Human and Mouse WB. Western blot analysis of SLC22A3 in lysates from lane 1: human HEK293 cells, lane 2: human HeLa cells, lane 3: mouse skeletal muscle, and lane 4: mouse lung using SLC22A3 Antibody / Organic Cation Transporter 3 Antibody. A specific band is detected at approximately 61 kDa, consistent with the predicted molecular weight of SLC22A3. Comparable detection across both human and mouse samples demonstrates cross-species recognition of the transporter. This SLC22A3 Antibody, also called Organic Cation Transporter 3 Antibody, is suitable for studies of organic cation transport, monoamine transport, membrane transporter biology, and xenobiotic uptake.

Description

SLC22A3 Antibody / Organic Cation Transporter 3 Antibody recognizes SLC22A3, a polyspecific membrane transporter belonging to the solute carrier family 22 (SLC22) of organic cation transporters. Also known as Organic Cation Transporter 3 (OCT3), SLC22A3 mediates sodium-independent uptake of endogenous monoamines, neurotransmitters, metabolic intermediates, and numerous xenobiotic compounds. Unlike several related transporters that exhibit more tissue-restricted expression, SLC22A3 is broadly distributed in organs including the intestine, liver, kidney, placenta, heart, skeletal muscle, and brain, where it contributes to the movement of positively charged molecules across the plasma membrane. Its wide substrate specificity makes it an important component of systemic drug disposition and cellular homeostasis.

SLC22A3 functions as a low-affinity, high-capacity transporter capable of transporting dopamine, norepinephrine, epinephrine, serotonin, histamine, and many therapeutic drugs. Because of this broad substrate profile, it plays significant roles in neurotransmitter clearance outside synapses, regulation of circulating catecholamines, and tissue-specific drug uptake. The transporter also contributes to the pharmacokinetics of several clinically important compounds, making SLC22A3 a frequent subject of pharmacology and toxicology research. An SLC22A3 Antibody is therefore valuable for investigating transporter expression, membrane localization, and changes associated with altered cellular metabolism or drug exposure.

Beyond its physiological transport functions, SLC22A3 has attracted attention in cancer biology and human genetics. Altered expression or epigenetic regulation of SLC22A3 has been reported in several tumor types, where transporter activity may influence tumor progression, cellular metabolism, and responsiveness to therapeutic agents. Genetic variants affecting SLC22A3 have also been associated with differences in drug response, cardiovascular physiology, and susceptibility to complex diseases. Ongoing studies continue to investigate how modulation of Organic Cation Transporter 3 contributes to disease mechanisms and personalized medicine.

An SLC22A3 Antibody is a valuable research tool for examining Organic Cation Transporter 3 expression, membrane transporter biology, monoamine transport pathways, pharmacology, and mechanisms governing xenobiotic uptake across normal and diseased tissues.

Explore our Cancer Marker Antibodies page to discover additional antibodies for investigating membrane transport proteins, drug response, tumor biology, and molecular biomarkers relevant to cancer research.

Application Notes

Optimal dilution of the SLC22A3 Antibody / Organic Cation Transporter 3 Antibody should be determined by the researcher.

Immunogen

Amino acids FDEALQRVGEFGRFQRR from the human protein were used as the immunogen for the SLC22A3 antibody.

Storage

After reconstitution, the SLC22A3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

SLC22A3 antibody, Organic Cation Transporter 3 antibody, OCT3 antibody, Solute Carrier Family 22 Member 3 antibody

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