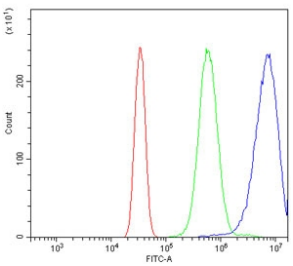
Oat3 Antibody / Slc22a8 (RQ6266)

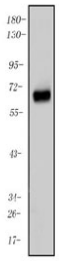
Catalog No.	Formulation	Size
RQ6266	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	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
UniProt	O88909
Applications	Western Blot : 1-2ug/ml Flow Cytometry : 1-3ug/million cells Direct ELISA : 0.1-0.5ug/ml
Limitations	This Oat3 antibody is available for research use only.



Oat3 Antibody / Slc22a8 Neuro-2a FACS. Flow cytometry analysis of Neuro-2a cells using Oat3 Antibody / Slc22a8 Antibody demonstrates a strong positive fluorescence shift relative to both unstained cells and isotype control-treated cells, consistent with expression of Organic Anion Transporter 3 (OAT3/Slc22a8). Overlay histograms compare cells alone (red), isotype control antibody (green), and Oat3 antibody (blue), with the specific antibody producing a pronounced rightward shift indicative of target-associated binding. Cells were blocked with goat serum prior to staining, and antibody was used at 1 Î¼g per million cells. These results support application of the antibody for flow cytometric detection of OAT3 expression and transporter-associated cellular studies.



Oat3 Antibody / Slc22a8 Mouse Kidney WB. Western blot analysis of mouse kidney lysate using Oat3 Antibody / Slc22a8 Antibody demonstrates a distinct band at approximately 60 kDa, consistent with the predicted molecular weight of Organic Anion Transporter 3 (OAT3/Slc22a8). OAT3 is a membrane-associated transporter involved in the uptake and transport of organic anions, endogenous metabolites, pharmaceutical compounds, and xenobiotic substances. The observed band supports expression of OAT3 in renal tissue and validates the antibody for Western blot applications investigating kidney physiology, transporter biology, and drug transport mechanisms.

Description

Oat3 Antibody / Slc22a8 recognizes Organic Anion Transporter 3 (OAT3), a multispecific membrane transporter encoded by the Slc22a8 gene. OAT3 belongs to the Solute Carrier 22 (SLC22) family of transport proteins and is responsible for the uptake and transport of a broad range of endogenous metabolites, signaling molecules, pharmaceutical compounds, and xenobiotic substances. In mammals, OAT3 is expressed predominantly in the basolateral membrane of renal proximal tubule epithelial cells, where it plays a critical role in renal secretion and systemic clearance of organic anions. Due to its central function in drug transport and elimination, OAT3 is extensively studied in nephrology, toxicology, pharmacology, and transporter biology research.

OAT3 functions as part of an integrated transport network that regulates movement of metabolites and organic compounds between the bloodstream and urine. Known substrates include urate, prostaglandins, cyclic nucleotides, steroid conjugates, antibiotics, antiviral drugs, diuretics, and numerous environmental toxins. Alterations in Slc22a8 expression or transporter activity can significantly affect drug pharmacokinetics, tissue exposure, and susceptibility to drug-induced toxicity. As a result, OAT3 has become an important target for studies examining drug-drug interactions, renal transporter regulation, and mechanisms controlling xenobiotic clearance.

Beyond its established role in kidney physiology, OAT3 contributes to the transport of signaling molecules and metabolic intermediates that influence cellular homeostasis. Expression of Slc22a8 has also been reported in additional tissues including the choroid plexus and select vascular and epithelial cell populations. Changes in OAT3 expression have been associated with kidney injury, chronic kidney disease, inflammation, and altered metabolic states. Consequently, OAT3 is frequently investigated as a marker of renal transporter function and as a component of pathways involved in tissue detoxification and metabolite handling.

Oat3 Antibody / Slc22a8 is useful for studies of renal transport mechanisms, kidney physiology, drug disposition, and transporter-mediated cellular uptake. The antibody supports investigations of OAT3 localization, tissue distribution, and regulation under physiological and pathological conditions. Common search terms including Oat3 antibody, Slc22a8 antibody, Organic Anion Transporter 3 antibody, renal transporter antibody, and kidney drug transporter antibody further reflect the broad scientific interest in this transporter across multiple research disciplines.

NSJ Bioreagents offers Oat3 Antibody / Slc22a8 to support studies of renal biology, nephrotoxicity, pharmacokinetics, transporter-mediated drug handling, and cellular transport pathways. By enabling detection of this important organic anion transporter, the antibody provides researchers with a valuable tool for investigating kidney function, metabolite transport, and mechanisms regulating drug and xenobiotic clearance.

Researchers seeking additional validation data and species coverage may also be interested in our SLC22A8 Antibody / OAT3 page featuring applications for Western blotting, immunohistochemistry, immunofluorescence, and flow cytometry.

Application Notes

Optimal dilution of the Oat3 antibody should be determined by the researcher.

Immunogen

A mouse recombinant partial protein (amino acids K69-T534) was used as the immunogen for the Oat3 antibody.

Storage

After reconstitution, the Oat3 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

Slc22a8 antibody, Oat3 antibody, Solute carrier family 22 member 8 antibody, Organic anion transporter 3 antibody