

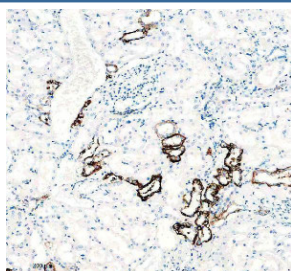
SLC8A1 Antibody / NCX1 Antibody [clone 18S76] (FY13495)

Catalog No.	Formulation	Size
FY13495	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol	100 ul

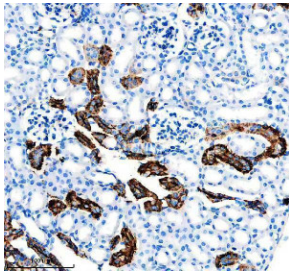
Recombinant **RABBIT MONOCLONAL**

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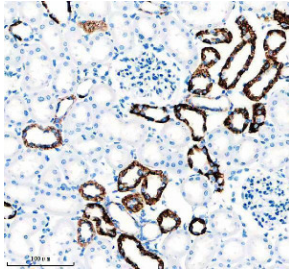
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	18S76
Purity	Antigen chromatography
UniProt	P32418
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry (FFPE) : 1:50-1:200
Limitations	This SLC8A1 Antibody / NCX1 Antibody is available for research use only.



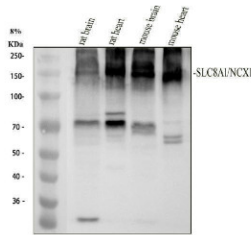
SLC8A1 Antibody Human Kidney IHC. Immunohistochemical analysis of FFPE human kidney tissue using SLC8A1 Antibody / NCX1 Antibody, clone 18S76. Heat-induced epitope retrieval was performed in EDTA buffer (pH 8.0). The tissue was incubated with the recombinant rabbit monoclonal antibody at a 1:50 dilution overnight at 4°C, followed by an HRP-conjugated goat anti-rabbit secondary antibody and DAB chromogen detection. Strong membranous staining is observed in renal tubular epithelial cells, consistent with the known localization of SLC8A1 in the kidney, where it regulates sodium-calcium exchange and cellular calcium homeostasis. This SLC8A1 Antibody, also called NCX1 Antibody, is suitable for studies of sodium-calcium exchange, calcium homeostasis, renal physiology, membrane transporter biology, and cardiovascular research.



SLC8A1 Antibody Mouse Kidney IHC. Immunohistochemical analysis of FFPE mouse kidney tissue using SLC8A1 Antibody / NCX1 Antibody, clone 18S76. Heat-induced epitope retrieval was performed in EDTA buffer (pH 8.0). The tissue was incubated with the recombinant rabbit monoclonal antibody at a 1:50 dilution overnight at 4°C, followed by an HRP-conjugated goat anti-rabbit secondary antibody and DAB chromogen detection. Prominent membranous and cytoplasmic staining is observed in renal tubular epithelial cells, consistent with the known expression of SLC8A1 in kidney tissue and its role in sodium-calcium exchange. This SLC8A1 Antibody, also called NCX1 Antibody, is suitable for studies of sodium-calcium exchange, calcium homeostasis, renal physiology, membrane transporter biology, and cardiovascular research.



SLC8A1 Antibody Rat Kidney IHC. Immunohistochemical analysis of FFPE rat kidney tissue using SLC8A1 Antibody / NCX1 Antibody, clone 18S76. Heat-induced epitope retrieval was performed in EDTA buffer (pH 8.0). The tissue was incubated with the recombinant rabbit monoclonal antibody at a 1:50 dilution overnight at 4°C, followed by an HRP-conjugated goat anti-rabbit secondary antibody and DAB chromogen detection. Strong membranous staining is observed in renal tubular epithelial cells, consistent with the established localization of SLC8A1 in kidney tubules where it contributes to sodium-calcium exchange and calcium homeostasis. This SLC8A1 Antibody, also called NCX1 Antibody, is suitable for studies of sodium-calcium exchange, calcium homeostasis, renal physiology, membrane transporter biology, and cardiovascular research.



SLC8A1 Antibody Mouse and Rat Brain and Heart WB. Western blot analysis of rat brain (lane 1), rat heart (lane 2), mouse brain (lane 3), and mouse heart (lane 4) tissue lysates using SLC8A1 Antibody / NCX1 Antibody, clone 18S76. Proteins were separated on an 8% SDS-PAGE gel, transferred to a nitrocellulose membrane, and incubated with the recombinant rabbit monoclonal antibody at a 1:500 dilution, followed by an HRP-conjugated goat anti-rabbit secondary antibody for chemiluminescent detection. A prominent band was detected at approximately 140 kDa in all four tissues, consistent with the higher apparent molecular weight commonly observed for glycosylated NCX1 despite a predicted molecular weight of approximately 109 kDa. This SLC8A1 Antibody, also called NCX1 Antibody, is suitable for studies of sodium-calcium exchange, calcium homeostasis, cardiac physiology, membrane transporter biology, and neuronal signaling.

Description

SLC8A1 Antibody / NCX1 Antibody, clone 18S76, recognizes the sodium-calcium exchanger encoded by the SLC8A1 gene, one of the major membrane transport proteins responsible for maintaining intracellular calcium homeostasis. SLC8A1 is expressed in numerous tissues, with particularly high levels in the heart, brain, kidney, and vascular smooth muscle. By exchanging intracellular calcium for extracellular sodium, NCX1 regulates cytosolic calcium concentrations that control muscle contraction, electrical activity, secretion, and cell signaling. As a recombinant rabbit monoclonal antibody, clone 18S76 provides a highly specific reagent for investigating SLC8A1 expression in normal physiology and disease models.

SLC8A1 plays an essential role in cardiac excitation-contraction coupling by removing calcium from cardiomyocytes during relaxation. Depending on membrane potential and ionic gradients, the exchanger can also mediate calcium influx, allowing it to participate in dynamic regulation of calcium signaling under physiological and pathological conditions. Beyond the cardiovascular system, NCX1 contributes to neuronal calcium regulation, synaptic function, vascular smooth muscle contraction, and renal physiology. SLC8A1 Antibody is therefore widely used to study membrane transporter biology, calcium-dependent signaling, and tissue-specific regulation of ion homeostasis.

Altered expression or activity of SLC8A1 has been implicated in heart failure, cardiac hypertrophy, ischemia-reperfusion injury, arrhythmias, hypertension, stroke, and neurodegenerative disorders. Because calcium dysregulation contributes to

numerous human diseases, NCX1 has become an important target for studies investigating disease mechanisms and therapeutic interventions that restore normal calcium balance. Researchers frequently evaluate changes in SLC8A1 abundance, localization, and regulation to better understand how disturbed sodium-calcium exchange influences cellular survival and tissue function.

SLC8A1 is commonly analyzed by Western blotting, immunohistochemistry, immunofluorescence, flow cytometry, immunoprecipitation, and related protein detection methods using heart, brain, and cultured cells expressing endogenous protein. Clone 18S76 provides a recombinant rabbit monoclonal option for sensitive and reproducible detection of this important membrane transporter. A SLC8A1 Antibody is a valuable research tool for detecting endogenous NCX1 expression and investigating sodium-calcium exchange, calcium homeostasis, cardiac physiology, membrane transporter biology, and neuronal signaling.

Learn more about NCX1 biology and its role in calcium transport by visiting our [NCX1 Antibody / Sodium Calcium Exchanger Antibody](#) page.

Application Notes

Optimal dilution of the SLC8A1 Antibody / NCX1 Antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Sodium/calcium exchanger 1 protein was used as the immunogen for the SLC8A1 antibody.

Storage

Store the SGCD Antibody at -20oC for one year, or at 4oC for one month.

Alternate Names

SLC8A1 antibody, NCX1 antibody, Sodium Calcium Exchanger 1 antibody, Solute Carrier Family 8 Member A1 antibody