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Rabbit Anti-SLC5A3 antibody

SL11954R

Product Name:	SLC5A3
Chinese Name:	钠离子肌醇Transporter抗体
Alias:	Na(+)/myo inositol cotransporter; Na(+)/myo-inositol cotransporter; SC5A3_HUMAN; SLC5A3; SMIT; SMIT2; sodium/myo inositol cotransporter 1; Sodium/myo inositol cotransporter; Sodium/myo-inositol cotransporter; solute carrier family 5 (inositol transporters), member 3; Solute carrier family 5 member 3.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	80kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SLC5A3/SMIT:251-350/718<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Myo-inositol is involved in many important aspects of cellular regulation including membrane structure, signal transduction and osmoregulation. It is taken up into cells by the sodium/myo-inositol cotransporter (SMIT). SMIT activity maintains intracellular

concentrations of myo-inositol; it is upregulated in response to hypertonic stress. The human SMIT protein is encoded by the SLC5A3 gene, which maps to chromosome 21q22.12. It is expressed in many human tissues, such as brain, kidney and placenta. Specifically, SMIT is abundantly expressed throughout the whole brain and spinal cord in fetal rat, but is downregulated in adult rat brain with the exception of the choroid plexus, where SMIT expression remains high. In kidney, SMIT localizes to the baso-lateral membranes of the thick ascending limb of Henle (TAL) and the inner medullary collecting duct (IMCD). Impaired SMIT activity is implicated in the pathogenesis of diabetes and Down syndrome.

Function:
Prevents intracellular accumulation of high concentrations of myo-inositol (an osmolyte) that result in impairment of cellular function.

Subcellular Location:
Membrane; Multi-pass membrane protein.

Similarity:
Belongs to the sodium:solute symporter (SSF) (TC 2.A.21) family.

SWISS:
P53794

Gene ID:
6526

Database links:

Entrez Gene: 6526 Human

Omim: 600444 Human

SwissProt: P53794 Human

Unigene: 302742 Human

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.