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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.
Research Area	Tumour Neurobiology Signal transduction The new supersedes the old
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, (predicted: Mouse, Rat, Chicken, Dog, Pig, Cow, Rabbit, Sheep,)
Applications	ELISA=1:5000-10000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	80kDa
Cellular localization	The cell membrane
Form	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
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
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