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SLC17A5 Rabbit pAb

Catalog # AP96830

Product Information

Application	WB
Primary Accession	Q8BN82
Other Accession	Q8BN82
Reactivity	Mouse
Predicted	Rat, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54369
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse SLC17A5
Epitope Specificity	201-300/495
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the major facilitator superfamily. Sodium/anion cotransporter family.
DISEASE	Salla disease Infantile sialic acid storage disorder Infantile sialic acid storage disorder is associated with non-immune hydrops fetalis, a generalized edema of the fetus with fluid accumulation in the body cavities due to non-immune causes. Non-immune hydrops fetalis is not a diagnosis in itself but a symptom, a feature of many genetic disorders, and the end-stage of a wide variety of disorders.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a membrane transporter that exports free sialic acids that have been cleaved off of cell surface lipids and proteins from lysosomes. Mutations in this gene cause sialic acid storage diseases, including infantile sialic acid storage disorder and and Salla disease, an adult form. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	235504
Other Names	AST; ISSD; NSD; SD; SIALIN; SIASD; SLD; VEAT; 4631416G20Rik; 4732491M05; S17A5_HUMAN; SLC17A5; H(+)/nitrate cotransporter; H(+)/sialic acid cotransporter (AST); Membrane glycoprotein HP59; Solute carrier family 17 member 5; Vesicular excitatory amino acid transporter (VEAT); S17A5_MOUSE; sialic acid storage disease; solute carrier family 17 (anion/sugar transporter), member 5; solute carrier family 17 (acidic sugar transporter), member 5; acidic sugar transporter; infantile sialic acid storage disorder; Salla disease
Dilution	WB=1:500-2000

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	Slc17a5
Function	Multifunctional anion transporter that operates via two distinct transport mechanisms, namely proton-coupled anion cotransport and membrane potential-dependent anion transport (By similarity) (PubMed:18695252). Electroneutral proton-coupled acidic monosaccharide symporter, with a sugar to proton stoichiometry of 1:1. Exports glucuronic acid and free sialic acid derived from sialoglycoconjugate degradation out of lysosomes, driven by outwardly directed lysosomal pH gradient. May regulate lysosome function and metabolism of sialylated conjugates that impact oligodendrocyte lineage differentiation and myelinogenesis in the central nervous system (By similarity) (PubMed:20007460). Electrogenic proton-coupled nitrate symporter that transports nitrate ions across the basolateral membrane of salivary gland acinar cells, with nitrate to proton stoichiometry of 2:1. May contribute to nitrate clearance from serum by salivary glands, where it is further concentrated and secreted in the saliva (By similarity). Uses membrane potential to drive the uptake of acidic amino acids and peptides into synaptic vesicles. Responsible for synaptic vesicular storage of L-aspartate and L-glutamate in pinealocytes as well as vesicular uptake of N-acetyl-L-aspartyl-L-glutamate neuropeptide, relevant to aspartegic-associated glutamatergic neurotransmission and activation of metabotropic receptors that inhibit subsequent transmitter release (PubMed:18695252, PubMed:23889254).
Cellular Location	Basolateral cell membrane {ECO:0000250|UniProtKB:Q9NRA2}; Multi-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Multi-pass membrane protein. Lysosome membrane {ECO:0000250|UniProtKB:Q9NRA2}; Multi- pass membrane protein
Tissue Location	Expressed in hippocampal neurons (at protein level).

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