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SLC17A5 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI12351

Product Information

Application	WB, IHC
Primary Accession	Q9NRA2
Other Accession	NM_012434, NP_036566
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Dog, Guinea Pig, Horse, Bovine, Sheep
Predicted	Human, Rat, Rabbit, Zebrafish, Chicken, Dog, Guinea Pig, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54640

Additional Information

Gene ID	26503
Alias Symbol	AST, FLJ22227, FLJ23268, ISSD, NSD, SD, SIALIN, SIASD, SLD
Other Names	Sialin, H(+)/nitrate cotransporter, H(+)/sialic acid cotransporter, AST, Membrane glycoprotein HP59, Solute carrier family 17 member 5, Vesicular H(+)/Aspartate-glutamate cotransporter, SLC17A5
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-SLC17A5 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	SLC17A5 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

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 (PubMed:15510212, PubMed:21781115, PubMed:22778404, PubMed:23889254). 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:15510212, PubMed:21781115, PubMed:22778404, PubMed:23889254). 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 (PubMed:22778404). 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 (By similarity) (PubMed:21781115, PubMed:22778404, PubMed:23889254).

Cellular Location

Basolateral cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein

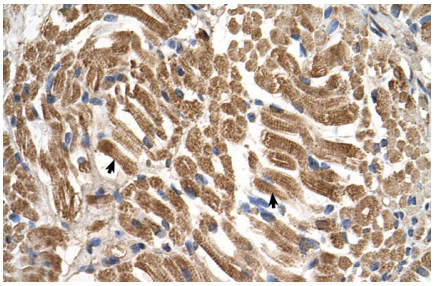
Tissue Location

In the adult, detected in placenta, kidney and pancreas. Abundant in the endothelial cells of tumors from ovary, colon, breast and lung, but is not detected in endothelial cells from the corresponding normal tissues (PubMed:10581036, PubMed:11751519) Highly expressed in salivary glands and liver, with lower levels of expression in brain, spleen kidney, muscle and pancreas. Expressed in acinar cells of salivary glands (at protein level) (PubMed:22778404)

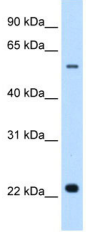
References

Myall,N.J.,(2007)Mol.Genet.Metab.92(4),371-374ReconstitutionandStorage:Forshorttermuse,storeat2-8Cupto1week.Forlongtermstorage,storeat-20Cinsmallaliquotstopreventfreeze-thawcycles.

Images



Human Muscle



WB Suggested Anti-SLC17A5 Antibody Titration: 0.5µg/ml
Positive Control: 293T cells lysate