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# SLC17A5 Rabbit pAb

Catalog # AP98053

## Product Information

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| **Application** | IHC-P, IHC-F, IF, E |
| **Primary Accession** | Q9NRA2 |
| **Other Accession** | Q9NRA2 |
| **Predicted** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 54640 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human SLC17A5 |
| **Epitope Specificity** | 1-100/495 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4. |
| **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

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| **Gene ID** | 26503 |
| **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** | IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |

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| **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

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| **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) |

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