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SLC4A7 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5655B

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9Y6M7
Other Accession	NP_003606.3
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB27279
Calculated MW	136044
Antigen Region	1186-1214

Additional Information

Gene ID	9497
Other Names	Sodium bicarbonate cotransporter 3, Electroneutral Na/HCO(3) cotransporter, Sodium bicarbonate cotransporter 2, Sodium bicarbonate cotransporter 2b, Bicarbonate transporter, Solute carrier family 4 member 7, SLC4A7, BT, NBC2, NBC2B, NBC3, NBCn1, SBC2, SLC4A6
Target/Specificity	This SLC4A7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1186-1214 amino acids from the C-terminal region of human SLC4A7.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SLC4A7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC4A7

Synonyms	BT, NBC2, NBC2B, NBC3, NBCn1, SBC2, SLC4
Function	Electroneutral sodium- and bicarbonate-dependent cotransporter with a Na(+):HCO3(-) 1:1 stoichiometry (PubMed:10347222, PubMed:12403779, PubMed:14578046, PubMed:14736710). Mediates the sodium-dependent bicarbonate transport important for pH recovery after acid load as well as for regulation of steady-state pH in the duodenum and vascular smooth muscle cells (By similarity). Plays a key role in macrophage acidification, mediating bicarbonate import into the cytoplasm which is crucial for net acid extrusion and maintenance of cytoplasmic pH during phagocytosis (PubMed:29779931). Provides cellular bicarbonate for de novo purine and pyrimidine synthesis and is a key mediator of de novo nucleotide synthesis downstream of mTORC1 signaling in proliferating cells (PubMed:35772404).
Cellular Location	Basolateral cell membrane {ECO:0000250|UniProtKB:Q9R1N3}; Multi-pass membrane protein. Apical cell membrane {ECO:0000250|UniProtKB:Q9R1N3}; Multi-pass membrane protein. Cell projection, stereocilium {ECO:0000250|UniProtKB:Q9R1N3}. Cell membrane; Multi-pass membrane protein. Note=Localizes to the stereocilia of cochlear outer hair cells and to the lateral membrane of cochlear inner hair cells (By similarity). {ECO:0000250|UniProtKB:Q9R1N3}
Tissue Location	Highly expressed in testis and spleen. Also expressed in retina, colon, small intestine, ovary, thymus, prostate, muscle, heart and kidney.

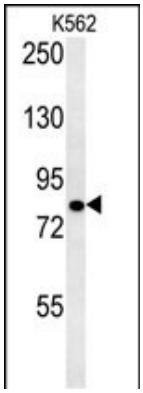
Background

SLC4A7 regulates intracellular pH and may also play a role in bicarbonate salvage in secretory epithelia. Additionally, SLC4A7 may also have associated sodium channel activity.

References

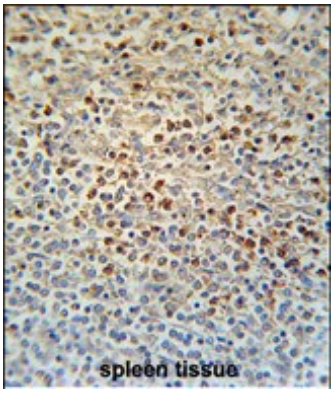
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Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
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Images



SLC4A7 Antibody (C-term) (Cat. #AP5655b) western blot analysis in K562 cell line lysates (15ug/lane).This demonstrates the SLC4A7 antibody detected the SLC4A7 protein (arrow).

SLC4A7 Antibody (C-term) (Cat. #AP5655b) immunohistochemistry analysis in formalin fixed and paraffin embedded human spleen tissue followed by



peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the SLC4A7 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- Acidic Stress Triggers Sodium-Coupled Bicarbonate Transport and Promotes Survival in A375 Human Melanoma Cells.
- Functional and molecular characterization of transmembrane intracellular pH regulators in human dental pulp stem cells.
- Expressional and Functional Characterization of Intracellular pH Regulators and Effects of Ethanol in Human Oral Epidermoid Carcinoma Cells.

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