

SLC4A7 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5655B**Specification**

SLC4A7 Antibody (C-term) - Product Information

Application	IHC-P, WB,E
Primary Accession	O9Y6M7
Other Accession	NP_003606.3
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	136044
Antigen Region	1186-1214

SLC4A7 Antibody (C-term) - Additional Information**Gene ID** 9497**Other Names**

Sodium bicarbonate cotransporter 3, Electroneutral Na/HCO₃ 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

IHC-P~~1:50~100

WB~~1:1000

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.

SLC4A7 Antibody (C-term) - 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}

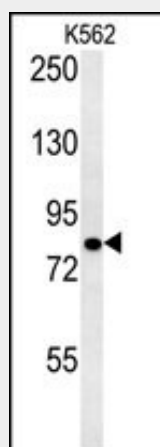
Tissue Location

Highly expressed in testis and spleen. Also expressed in retina, colon, small intestine, ovary, thymus, prostate, muscle, heart and kidney.

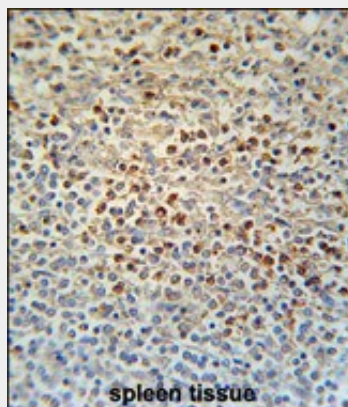
SLC4A7 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SLC4A7 Antibody (C-term) - 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.

SLC4A7 Antibody (C-term) - 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.

SLC4A7 Antibody (C-term) - References

Odefrey, F., et al. Cancer Res. 70(4):1449-1458(2010)
Ahmed, S., et al. Nat. Genet. 41(5):585-590(2009)
Ishiguro, H., et al. Addiction 102(8):1320-1325(2007)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Olsen, J.V., et al. Cell 127(3):635-648(2006)

SLC4A7 Antibody (C-term) - 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.](#)