10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SLC9A5 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP13149b

Specification

SLC9A5 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q14940

SLC9A5 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 6553

Other Names
Sodium/hydrogen exchanger 5, Na(+)/H(+) exchanger 5, NHE-5, Solute carrier family 9 member 5, SLC9A5, NHE5

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13149b was selected from the C-term region of SLC9A5. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SLC9A5 Antibody (C-term) Blocking Peptide - Protein Information

Name SLC9A5 (HGNC:11078)

Synonyms NHE5

Function
Plasma membrane Na(+)/H(+) antiporter. Mediates the electroneutral exchange of intracellular H(+) ions for extracellular Na(+) in 1:1 stoichiometry, thus regulating intracellular pH homeostasis, in particular in neural tissues (PubMed:9933641, PubMed:10692428, PubMed:19276089, PubMed:24936055). Acts as a negative regulator of dendritic spine growth (PubMed:21551074). Plays a role in postsynaptic remodeling and signaling (PubMed:24006492, PubMed:<a

href="http://www.uniprot.org/citations/21551074" target="_blank">21551074). Can also contribute to organellar pH regulation, with consequences for receptor tyrosine kinase trafficking (PubMed:24936055).

Cellular Location
Cell membrane; Multi-pass membrane protein. Recycling endosome membrane; Multi-pass membrane protein. Cell projection, dendritic spine membrane; Multi-pass membrane protein. Synaptic cell membrane; Multi-pass membrane protein. Cell junction, focal adhesion. Note=Cycles between recycling endosome and plasma membrane in response to diverse stimuli. Its internalization is clathrin- and beta-arrestin dependent and its plasma membrane insertion from the recycling endosomes requires phosphoinositide 3- kinase (PIK3CA) and SCAMP2.

Tissue Location
Mainly expressed in brain (PubMed:7759094, PubMed:9933641). Expressed in neurons of the central and peripheral nervous system (PubMed:21551074, PubMed:9933641). Expressed also in testis, spleen, and skeletal muscle (PubMed:7759094)

SLC9A5 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

SLC9A5 Antibody (C-term) Blocking Peptide - Images

SLC9A5 Antibody (C-term) Blocking Peptide - Background

SLC9A5 is involved in pH regulation to eliminate acids generated by active metabolism or to counter adverse environmental conditions. Major proton extruding system driven by the inward sodium ion chemical gradient. Plays an important role in signal transduction (By similarity).

SLC9A5 Antibody (C-term) Blocking Peptide - References

Diering, G.H., et al. J. Biol. Chem. 284(20):13892-13903(2009)Onishi, I., et al. Cell. Signal. 19(1):194-203(2007)Szabo, E.Z., et al. Proc. Natl. Acad. Sci. U.S.A. 102(8):2790-2795(2005)Lin, W.M., et al. Sheng Li Xue Bao 55(1):79-82(2003)Inoue, H., et al. Biol. Pharm. Bull. 26(2):148-155(2003)