

SLC9A4 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP16972c**Specification**

SLC9A4 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [Q6AI14](#)**SLC9A4 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 389015**Other Names**

Sodium/hydrogen exchanger 4, Na(+)/H(+) exchanger 4, NHE-4, Solute carrier family 9 member 4, SLC9A4, NHE4

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.

SLC9A4 Antibody (Center) Blocking Peptide - Protein Information**Name** SLC9A4**Synonyms** NHE4**Function**

Electroneutral antiporter that exchanges sodium for protons or ammonium ions at the basolateral membrane of epithelia to regulate cell volume and intracellular pH upon hypertonic conditions (By similarity). As part of transcellular ammonia transport in renal tubules, mediates basolateral ammonium extrusion in the medullary thick ascending limb, regulating the corticopapillary ammonium gradient and overall renal acid excretion (By similarity). Mediates sodium:proton exchange in gastric parietal cells secondary to cAMP-dependent acid secretion and hyperosmolarity. Possibly coupled to chloride:bicarbonate antiporter, enables loading of parietal cells with sodium and chloride ions to maintain cell volume and normal gastric acid secretion (By similarity). Functions as a sodium sensor in neurons of organum vasculosum of the lamina terminalis where it regulates water intake in response to increased sodium concentration in body fluids (By similarity).

Cellular Location

Basolateral cell membrane {ECO:0000250|UniProtKB:P26434}; Multi-pass membrane protein.
Apical cell membrane {ECO:0000250|UniProtKB:Q8BUE1}; Multi-pass membrane protein.

Zymogen granule membrane {ECO:0000250|UniProtKB:P26434}; Multi-pass membrane protein.
Note=Enrichment at apical or basolateral membrane may be tissue-dependent.
{ECO:0000250|UniProtKB:P26434}

SLC9A4 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

SLC9A4 Antibody (Center) Blocking Peptide - Images

SLC9A4 Antibody (Center) Blocking Peptide - Background

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. May play a specialized role in the kidney in rectifying cell volume in response to extreme fluctuations of hyperosmolar-stimulated cell shrinkage. Is relatively amiloride and ethylisopropylamiloride (EIPA) insensitive. Can be activated under conditions of hyperosmolar-induced cell shrinkage in a sustained intracellular acidification-dependence manner. Activated by 4,4'-diisothiocyanostilbene-2,2'-disulfonic acid (DIDS) in a sustained intracellular acidification-dependence manner. Affects potassium/proton exchange as well as sodium/proton and lithium/proton exchange. In basolateral cell membrane, participates in homeostatic control of intracellular pH, and may play a role in proton extrusion in order to achieve transepithelial HCO₃⁻ secretion. In apical cell membrane may be involved in mediating sodium absorption. Requires for normal levels of gastric acid secretion, secretory membrane development, parietal cell maturation and/or differentiation and at least secondarily for chief cell differentiation (By similarity).

SLC9A4 Antibody (Center) Blocking Peptide - References

Dubois, P.C., et al. Nat. Genet. 42(4):295-302(2010)Hunt, K.A., et al. Nat. Genet. 40(4):395-402(2008)Beltran, A.R., et al. Pflugers Arch. 455(5):799-810(2008)Inoue, H., et al. Biol. Pharm. Bull. 26(2):148-155(2003)Szpirer, C., et al. Mamm. Genome 5(3):153-159(1994)