

SLC5A8 Blocking Peptide (C-Term)

Synthetic peptide

Catalog # BP22009b

Specification

SLC5A8 Blocking Peptide (C-Term) - Product Information

Primary Accession

[Q8N695](#)**SLC5A8 Blocking Peptide (C-Term) - Additional Information**

Gene ID 160728

Other Names

Sodium-coupled monocarboxylate transporter 1, Apical iodide transporter, Electrogenic sodium monocarboxylate cotransporter, Sodium iodide-related cotransporter, Solute carrier family 5 member 8, SLC5A8 {ECO:0000312|EMBL:AAP46193.1}

Target/Specificity

The synthetic peptide sequence is selected from aa 599-609 of HUMAN SLC5A8

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.

SLC5A8 Blocking Peptide (C-Term) - Protein Information

Name SLC5A8 {ECO:0000312|EMBL:AAP46193.1}

Function

Acts as an electrogenic sodium (Na(+)) and chloride (Cl⁻)- dependent sodium-coupled solute transporter, including transport of monocarboxylates (short-chain fatty acids including L-lactate, D-lactate, pyruvate, acetate, propionate, valerate and butyrate), monocarboxylate drugs (nicotinate, benzoate, salicylate and 5-aminosalicylate) and ketone bodies (beta-D-hydroxybutyrate, acetoacetate and alpha-ketoisocaproate), with a Na(+):substrate stoichiometry of between 4:1 and 2:1 (PubMed: 14966140, PubMed: 15090606, PubMed: 16729224, PubMed: 16805814, PubMed: 17178845, PubMed: 17245649, PubMed: 17526579, PubMed: 20211600)

target="_blank">20211600, PubMed:30604288). Catalyzes passive carrier mediated diffusion of iodide (PubMed:12107270). Mediates iodide transport from the thyrocyte into the colloid lumen through the apical membrane (PubMed:12107270). May be responsible for the absorption of D- lactate and monocarboxylate drugs from the intestinal tract (PubMed:17245649). Acts as a tumor suppressor, suppressing colony formation in colon cancer, prostate cancer and glioma cell lines (PubMed:12829793, PubMed:15867356, PubMed:18037591). May play a critical role in the entry of L-lactate and ketone bodies into neurons by a process driven by an electrochemical Na(+) gradient and hence contribute to the maintenance of the energy status and function of neurons (PubMed:16805814). Mediates sodium-coupled electrogenic transport of pyroglutamate (5-oxo-L-proline) (PubMed:20211600). Can mediate the transport of chloride, bromide, iodide and nitrate ions when the external concentration of sodium ions is reduced (PubMed:19864324).

Cellular Location

Apical cell membrane; Multi-pass membrane protein. Note=Expressed at the apical membrane of normal tall thyrocytes and of colonic epithelial cells

Tissue Location

Expressed in normal thyroid, localized at the apical pole of thyroid cells facing the colloid lumen, but expression profoundly decreased in thyroid carcinomas. Expressed in normal colon but absent in colon aberrant crypt foci and colon cancers. Present in normal kidney cortex, brain, prostate, gastric mucosa and breast tissue but was significantly down-regulated in primary gliomas, gastric cancer, prostate tumors and breast tumors

SLC5A8 Blocking Peptide (C-Term) - Protocols

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

- [Blocking Peptides](#)

SLC5A8 Blocking Peptide (C-Term) - Images

SLC5A8 Blocking Peptide (C-Term) - Background

Acts as an electrogenic sodium (Na(+)) and chloride (Cl⁻)-dependent sodium-coupled solute transporter, including transport of monocarboxylates (short-chain fatty acids including L-lactate, D-lactate, pyruvate, acetate, propionate, valerate and butyrate), lactate, monocarboxylate drugs (nicotinate, benzoate, salicylate and 5-aminosalicylate) and ketone bodies (beta-D-hydroxybutyrate, acetoacetate and alpha-ketoisocaproate), with a Na(+):substrate stoichiometry of between 4:1 and 2:1. Catalyzes passive carrier mediated diffusion of iodide. Mediates iodide transport from the thyrocyte into the colloid lumen through the apical membrane. May be responsible for the absorption of D- lactate and monocarboxylate drugs from the intestinal tract. Acts as a tumor suppressor, suppressing colony formation in colon cancer, prostate cancer and glioma cell lines. May play a critical role in the entry of L-lactate and ketone bodies into neurons by a process driven by an electrochemical Na(+) gradient and hence contribute to the maintenance of the energy status and function of neurons.

SLC5A8 Blocking Peptide (C-Term) - References

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