

Mouse Slc5a8 Blocking Peptide (C-term)
Synthetic peptide
Catalog # BP19791b**Specification**

Mouse Slc5a8 Blocking Peptide (C-term) - Product InformationPrimary Accession
Other Accession[Q8BYF6](#)
[NP_663398.2](#)**Mouse Slc5a8 Blocking Peptide (C-term) - Additional Information****Gene ID** 216225**Other Names**

Sodium-coupled monocarboxylate transporter 1, Electrogenic sodium monocarboxylate cotransporter, Solute carrier family 5 member 8, Slc5a8 {ECO:0000312|MGI:MGI:2384916}

Target/Specificity

The synthetic peptide sequence is selected from aa 563-574 of MOUSE 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.

Mouse Slc5a8 Blocking Peptide (C-term) - Protein Information**Name** Slc5a8 {ECO:0000312|MGI:MGI:2384916}**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: 15322102, PubMed: 15651982, PubMed: 20211600). Catalyzes passive carrier mediated diffusion of iodide (By similarity). Mediates iodide transport from the thyrocyte into the colloid lumen through the apical membrane (By similarity). May be responsible for the absorption of D-lactate and monocarboxylate drugs from the intestinal tract (By similarity). 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 (By similarity). 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 external concentration of sodium ions is reduced (By similarity).

Cellular Location

Apical cell membrane; Multi-pass membrane protein. Note=Restricted to the apical cell membrane of enterocytes.

Tissue Location

Expressed in brain, colon, kidney and in the ileum and jejunum of small intestine. In the kidney, expression occurred in the proximal tubule and the loop of Henle, being restricted to tubular epithelial cells in both the cortex and the medulla. In the colon, predominantly expressed in the distal half of the large bowel and in the most terminal ileum. Localized selectively in the luminal surface of crypts in the large intestine and to the brush border in the middle parts of crypts in the cecum. In the brain, expression was seen throughout, exclusively in neurons, including the cortex, hippocampus, cerebellum and pituitary gland (at protein level). Expression is reduced in oligodendrogliomas.

Mouse Slc5a8 Blocking Peptide (C-term) - Protocols

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

- [Blocking Peptides](#)

Mouse Slc5a8 Blocking Peptide (C-term) - Images

Mouse 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. 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.

Mouse Slc5a8 Blocking Peptide (C-term) - References

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