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

ENT1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP1086b

Specification

ENT1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q99808

ENT1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 2030

Other Names
Equilibrative nucleoside transporter 1, Equilibrative nitrobenzylmercaptopurine riboside-sensitive nucleoside transporter, Equilibrative NBMPR-sensitive nucleoside transporter, Nucleoside transporter, es-type, Solute carrier family 29 member 1, SLC29A1, ENT1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1086b was selected from the C-term region of human ENT1. 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.

ENT1 Antibody (C-term) Blocking Peptide - Protein Information

Name SLC29A1 (HGNC:11003)

Synonyms ENT1

Function
Uniporter involved in the facilitative transport of nucleosides and nucleobases, and contributes to maintaining their cellular homeostasis (PubMed:8986748, PubMed:10755314, PubMed:12527552, PubMed:10722669, PubMed:21795683, PubMed:35790189, PubMed:<a

href="http://www.uniprot.org/citations/27995448" target="_blank">27995448, PubMed:17379602, PubMed:14759222, PubMed:15037197, PubMed:26406980). Functions as a Na(+)-independent transporter (PubMed:8986748). Involved in the transport of nucleosides such as adenosine, guanosine, inosine, uridine, thymidine and cytidine (PubMed:8986748, PubMed:10755314, PubMed:12527552, PubMed:10722669, PubMed:17379602, PubMed:14759222, PubMed:15037197, PubMed:26406980). Also transports purine nucleobases (hypoxanthine, adenine, guanine) and pyrimidine nucleobases (thymine, uracil) (PubMed:21795683, PubMed:27995448). Mediates basolateral nucleoside uptake into Sertoli cells, thereby regulating the transport of nucleosides in testis across the blood-testis barrier (By similarity). Regulates inosine levels in brown adipocytes tissues (BAT) and extracellular inosine levels, which controls BAT-dependent energy expenditure (PubMed:35790189).

Cellular Location

Basolateral cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Note=Localized to the basolateral membrane of Sertoli cells (PubMed:23639800). Localized to the cell membrane of erythrocytes (PubMed:23219802, PubMed:11584005).

Tissue Location

Expressed in testis at the blood-testis barrier (at protein level) (PubMed:23639800). Detected in erythrocytes (at protein level) (PubMed:23219802, PubMed:11584005). Expressed at relatively high levels in cerebral cortex, particularly the frontal and parietal lobes, and the thalamus and basal ganglia (at protein level) (PubMed:11311901). In the midbrain expressed at moderate levels, whereas in the other areas of the brainstem, namely medulla and pons, cerebellum and the hippocampus expressed at lower amounts when compared to the other brain regions (at protein level) (PubMed:11311901) Expressed in Langerhans cells and lymphocytes in the pancreas (at protein level) (PubMed:15501974). Expressed in kidney, in polarized renal epithelial cells (PubMed:12527552). Expressed in adipose tissues (PubMed:35790189). Expressed in placenta (PubMed:8986748). Expressed in small intestine (PubMed:10755314).

ENT1 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

ENT1 Antibody (C-term) Blocking Peptide - Images

ENT1 Antibody (C-term) Blocking Peptide - Background

ENT1 is a member of the equilibrative nucleoside transporter family. It is a transmembrane glycoprotein that localizes to the plasma and mitochondrial membranes and mediates the cellular uptake of nucleosides from the surrounding medium. The protein is categorized as an equilibrative (as opposed to concentrative) transporter that is sensitive to inhibition by nitrobenzylthioinosine

(NBMPR). Nucleoside transporters are required for nucleotide synthesis in cells that lack de novo nucleoside synthesis pathways, and are also necessary for the uptake of cytotoxic nucleosides used for cancer and viral chemotherapies.

ENT1 Antibody (C-term) Blocking Peptide - References

Bone,D.B.,Am. J. Physiol. Heart Circ. Physiol. 293 (6), H3325-H3332 (2007)Damaraju,V.L., Am. J. Physiol. Renal Physiol. 293 (1), F200-F211 (2007)Abdulla,P.,Nucleosides Nucleotides Nucleic Acids 26 (1), 99-110 (2007)Sundaram,M., J. Biol. Chem. 276 (48), 45270-45275 (2001)