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

Phospho-ENT1(Slc29a1)(S254) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3615a

Product Information

Application	DB, E
Primary Accession	Q99808
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB16657
Calculated MW	50219

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	This ENT1(Slc29a1) Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S254 of human ENT1(Slc29a1).
Dilution	DB~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Phospho-ENT1(Slc29a1)(S254) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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:10722669, PubMed:10755314, PubMed:12527552, PubMed:14759222, PubMed:15037197, PubMed:17379602, PubMed:21795683, PubMed:26406980, PubMed:27995448, PubMed:35790189, PubMed:8986748). Functions as a Na(+)-independent transporter (PubMed:8986748). Involved in the transport of nucleosides such as adenosine, guanosine, inosine, uridine, thymidine and cytidine (PubMed:10722669, PubMed:10755314, PubMed:12527552, PubMed:14759222, PubMed:15037197, PubMed:17379602, PubMed:26406980, PubMed:8986748). 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:11584005, PubMed:23219802).
Tissue Location	Expressed in testis at the blood-testis barrier (at protein level) (PubMed:23639800). Detected in erythrocytes (at protein level) (PubMed:11584005, PubMed:23219802). 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).

Background

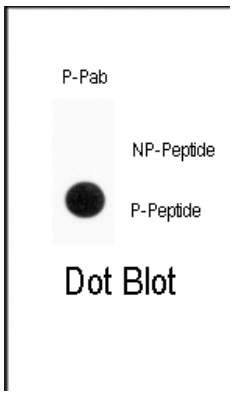
ENT1 is a member of the equilibrative nucleoside transporter family. The protein is categorized as an equilibrative (as opposed to concentrative) transporter that is sensitive to inhibition by nitrobenzylthioinosine (NBMPR). Nucleoside transporters are required for nucleotide synthesis in cells that lack de novo nucleoside synthesis pathways, and are also necessary for the uptake of cytotoxic nucleosides used for cancer and viral chemotherapies.

References

Dephoure N, et al. (2008) Proc Natl Acad Sci U S A 105, 10762-7
Bone DB, Robillard KR, Stolk M, Hammond JR (2007) Mol Membr Biol 24, 294-303

Images

Dot blot analysis of anti-Phospho-ENT1(Slc29a1)-pS254 Antibody (Cat.#AP3615a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per



dot were adsorbed. Antibody working concentrations are 0.5ug per ml.