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Product datasheet for TA328910

Slc29a2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1:200-1:2000; FC: 1:50-1:600
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	solute carrier family 29 (equilibrative nucleoside transporter), member 2
Database Link:	NP_113926 Entrez Gene 13340 MouseEntrez Gene 65194 Rat O54699

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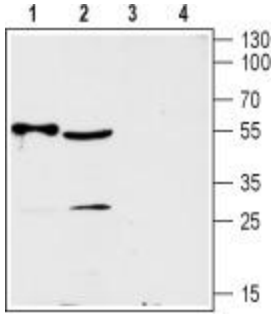
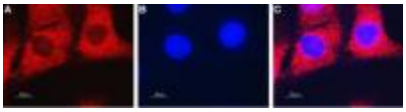
Background: Nucleosides play other important roles beyond their nucleic acid synthesis building block role. For example, they are involved in energy metabolism; they serve as ligands of purinergic receptors and act as influential signaling molecules. Being hydrophilic, nucleosides cannot simply diffuse across the plasma membrane in order to exert their various functions, but rather need to be physically transported via nucleoside transporters.Two different transporter families are responsible for transporting nucleosides across the plasma membrane: The Concentrative Nucleoside Transporter proteins (CNT, SLC28 family), which consist of three members, CNT1-3, and act as Na+-dependent symporters. The Equilibrative Nucleoside Transporter proteins ENT1-4 (ENT, SLC29 family), which mediate a Na+-independent facilitated diffusion. Therefore, ENTs act as bidirectional carriers, responsible for the influx and efflux of substrates.Structurally, ENT transporters have eleven transmembrane domains with an intracellular N-terminal and an extracellular C-terminal.The best characterized ENT transporters are ENT1 and ENT2, which although display a broader range of substrate selectivity, have lower affinities for nucleosides compared to concentrative transporters. They are ubiquitously expressed, for example ENT1 is expressed in erythrocytes, vascular endothelium, placenta, brain, heart, liver and colon. ENT2 displays more or less the same expression pattern but in addition, is strongly expressed in skeletal muscle. ENT3 is a lysosomal pH-dependent transporter capable of transporting adenine, and ENT4 also transports adenine at acidic pH. Both ENT3 and ENT4 are broadly expressed. The former displays high expression in the placenta and the latter in the heart.As mentioned above, nucleosides have a variety of cellular/physiological functions suggesting that transporters responsible for their trafficking may also have functional attributes. Indeed, ENT1 plays a role in proliferation and therefore is responsible for the constitutive trafficking of nucleosides.There is no evidence that nucleoside transporters are directly involved in pathophysiologies, but they are clinically significant. For example, nucleoside transporters are responsible for the cellular uptake of a number of nucleoside-derived anticancer drugs.

Synonyms: DER12; ENT2; HNP36

Product images:



Western blot analysis of rat heart (lanes 1 and 3) and mouse brain (lanes 2 and 4) lysates: 1-2. Anti-Equilibrative Nucleoside Transporter 2 (ENT2) antibody, (1:200). 3-4. Anti-Equilibrative Nucleoside Transporter 2 (ENT2) antibody, preincubated with the control peptide antigen.



Expression of ENT2 in mouse C2C12 myoblast cells. Immunocytochemical staining of fixed and permeabilized mouse C2C12 myoblast cells. A. Cells were stained with Anti-Equilibrative Nucleoside Transporter 2 (ENT2) antibody, (1:500), followed by goat anti-rabbit-AlexaFluor-594 secondary antibody (red). B. Cell nuclei were visualized using Hoechst 33342 (blue). C. Merge of the two images.