Datasheet for ABIN7043710

anti-SLC29A1 antibody (AA 245-260)

2 Images

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Overview

Quantity:	50 µL
Target:	SLC29A1
Binding Specificity:	AA 245-260
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SLC29A1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Equilibrative Nucleoside Transporter 1 (SLC29A1)
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)EQETKLDLISKGEEPR, corresponding to amino acid residues 245-260 of human ENT1
Isotype:	IgG
Specificity:	3rd intracellular loop
Cross-Reactivity:	Human, Rat
Predicted Reactivity:	Mouse,rat - 15,16 amino acid residues identical
Characteristics:	Anti-ENT1 (SLC29A1) Antibody (ABIN7043710 and ABIN7044800) is a highly specific antibody directed against an epitope of the human equilibrative nucleoside transporter 1. The antibody

Product Details

	can be used in western blot and immunohistochemistry applications. It has been designed to recognize ENT1 from rat, mouse, and human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	SLC29A1
Alternative Name:	SLC29A1 (SLC29A1 Products)
Background:	Equilibrative nucleoside transporter 1, Nucleoside transporter es-type,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 molecules1. 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 transporters1,2.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 symporters1,3, and the Equilibrative Nucleoside Transporter proteins ENT1-4 (ENT, SLC29 family), which mediate Na+-independent facilitated diffusion. ENTs act as bidirectional carriers, responsible for the influx and efflux of substrates1.Structurally, ENT transporters have eleven transmembrane domains with an intracellular N-terminal and an extracellular C-terminal1.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, the placenta, brain, heart, liver and colon1,4. ENT2 displays more or less the same expression pattern but in addition, is strongly expressed in skeletal muscle1,5. ENT3 is a lysosomal pH -dependent transporter capable of transporting adenine, and ENT4 also transports adenine at acidic pH . They are also broadly expressed with ENT3 displaying high expression in the placenta and ENT4 in the heart6,7.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 nucleosides1.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 drugs1.

Target Details

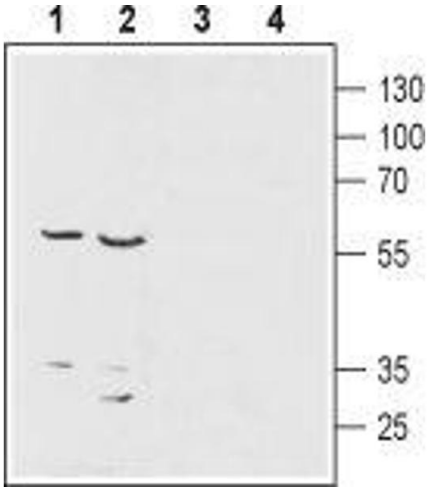
	Alternative names: ENT1 (SLC29A1), Equilibrative nucleoside transporter 1, Nucleoside transporter es-type
Gene ID:	2030
NCBI Accession:	NM_001078175
UniProt:	Q99808
Pathways:	Carbohydrate Homeostasis, Synaptic Membrane

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:100 Application Dilutions Western blot wb: 1:200
Comment:	Cited Application: IHC Negative Control: (ABIN7237040) Blocking Peptide: (ABIN7237040)
Restrictions:	For Research Use only

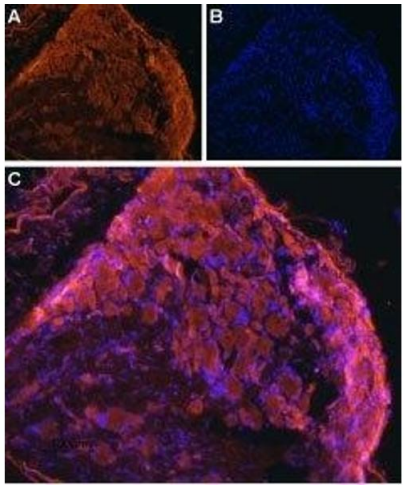
Handling

Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).



Western Blotting

Image 1. Western blot analysis of rat kidney lysates (lanes 1 and 3) and rat brain membranes (lanes 2 and 4): - 1,2. Anti-ENT1 (SLC29A1) Antibody (ABIN7043710 and ABIN7044800), (1:200).3,4. Anti-ENT1 (SLC29A1) Antibody, preincubated with ENT1/SLC29A1 Blocking Peptide (#BLP-NT051).



Immunohistochemistry

Image 2. Expression of ENT1 in rat DRG - Immunohistochemical staining of rat frozen dorsal root ganglion (DRG) using Anti-ENT1 (SLC29A1) Antibody (ABIN7043710 and ABIN7044800), (1:100), followed by goat anti-rabbit-AlexaFluor- 555 secondary antibody. A. ENT1 labeling (red) appears in the cell bodies of the DRG. Note that the nerve fibers are not stained. B. Nuclear staining using DAPI as counterstain (blue). C. Merged images of A+B.