Datasheet for ABIN7043708

anti-SLC28A2 antibody (Intracellular)

1 Image

Go to Product page

Overview

Quantity:	25 µL
Target:	SLC28A2
Binding Specificity:	AA 40-53, Intracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SLC28A2 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Concentrative Nucleoside Transporter 2 (CNT2, SLC28A2)
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)EVTQGHSLKDGLGH, corresponding to amino acid residues 40-53 of rat SLC28A2
Isotype:	IgG
Specificity:	Intracellular, N-terminus
Cross-Reactivity:	Mouse, Rat
Cross-Reactivity (Details):	Not recommended for human samples.
Predicted Reactivity:	Mouse - 13,14 amino acid residues identical
Characteristics:	Anti-SLC28A2 (CNT2) Antibody is directed against an epitope of the rat Concentrative

Product Details

	nucleoside transporter 2. Anti-SLC28A2 (CNT2) Antibody (ABIN7043708, ABIN7044805 and ABIN7044806) can be used in western blot analysis. It has been designed to recognize CNT2 from rat and mouse samples. The antibody is not recommended for use on human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	SLC28A2
Alternative Name:	SLC28A2 (SLC28A2 Products)
Background:	Concentrative nucleoside transporter 2, Sodium/nucleoside cotransporter 2, SPNT,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 a Na+-independent facilitated diffusion. Therefore, ENTs act as bidirectional carriers, responsible for the influx and efflux of substrates1.CNTs are responsible for the intracellular uptake of nucleosides, an energy consuming process which is coupled to the Na+ gradient across the plasma membrane. All three transporters display a relatively high affinity for their substrates but a more selective than ENTs1,4. Pyrimidines are the substrate of choice for CNT1 although it can bind but not transport adenosine. CNT2 prefers purines, although it can transport uridine, and CNT3 is selective for both types of nucleosides. Both CNT1 and CNT2 display a 1:1 stoichiometry (nucleoside:sodium)1,5. CNT3 on the other hand transports two Na+ ions per nucleoside, and can also co-transport protons in a pH dependent manner in a 1:1 ratio1,6,7.All three CNTs have thirteen transmembrane domains and an extracellular C-terminus responsible for substrate recognition1.CNT1 is widely expressed in the small intestine, kidney and liver1,8-10. CNT2 is expressed in immune system cells1,8 and CNT3 expression is abundant in monocytes and macrophages. All three are detected in various regions of the brain1,6,11,12.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

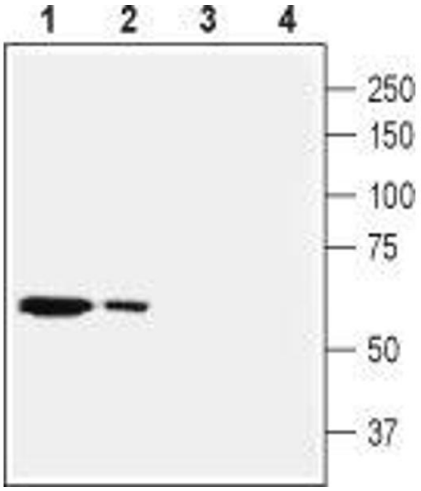
	Alternative names: SLC28A2 (CNT2), Concentrative nucleoside transporter 2, Sodium/nucleoside cotransporter 2, SPNT
Gene ID:	60423
NCBI Accession:	NM_004212
UniProt:	Q62773

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A Application Dilutions Western blot wb: 1:200
Comment:	Negative Control: (ABIN7237033) Blocking Peptide: (ABIN7237033)
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Recosntitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.
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 mouse liver (lanes 1 and 3) and rat heart (lanes 2 and 4) membranes: - 1,2. Anti-SLC28A2 (CNT2) Antibody (ABIN7043708, ABIN7044805 and ABIN7044806), (1:200).3,4. Anti-SLC28A2 (CNT2) Antibody, preincubated with SLC28A2/CNT2 Blocking Peptide (#BLP-NT062).