Datasheet for ABIN7581968

anti-SLC15A2 antibody (Extracellular)

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Overview

Quantity:	50 µL
Target:	SLC15A2
Binding Specificity:	AA 541-555, Extracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SLC15A2 antibody is un-conjugated
Application:	Immunohistochemistry (IHC), Western Blotting (WB), Immunofluorescence (Cultured Cells) (IF (cc)), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal antibody to PepT2/SLC15A2 (extracellular)
Immunogen:	(C)KDYGVSEYRTVQRGK, corresponding to amino acid residues 541 - 555 of mouse SLC15A2
Sequence:	(C)KDYGVSEYRT VQRGK
Isotype:	IgG
Specificity:	Extracellular, 5th loop.
Predicted Reactivity:	Rat - 13 out of 15 amino acid residues identical Human - 12 out of 15 amino acid residues identical
Characteristics:	Anti-PepT2/SLC15A2 (extracellular) Antibody (ABIN7581968) is a highly specific antibody directed against an extracellular epitope of the mouse protein. The antibody can be used in

Product Details

	western blot, immunohistochemistry and flow cytometry applications. It has been designed to recognize PepT2 from mouse, rat and human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	SLC15A2
Alternative Name:	SLC15A2 (SLC15A2 Products)
Background:	Peptide Transporter 2, Solute Carrier Family 15 Member 2, Oligopeptide Transporter - Kidney Isoform, Kidney H+/Peptide Cotransporter,Members of the proton-coupled oligopeptide transporter (POT) family are integral membrane proteins that consist of 12 transmembrane helices, having both the amino- and carboxy-terminus localized intracellularly. Four members of the POT family, called peptide transporter 1 (PEPT1, encoded by SLC15A1), peptide transporter 2 (PEPT2, encoded by SLC15A2), peptide/histidine transporter 1 (PHT1, encoded by SLC15A4) and peptide/histidine transporter 2 (PHT2, encoded by SLC15A3), have been identified in humans and other mammals1,2. They transport a wide range of di- and tripeptides and peptide-like drugs via an inwardly-directed proton gradient. PHT1 and PHT2 are also able to transport the free amino acid histidine across biological membranes3. PEPT1 was characterized as a high-capacity, low-affinity transporter4 and is expressed especially in the small intestine, where it facilitates the luminal uptake of di- and tripeptides, as well as peptidomimetics and was also found in placenta, liver, kidney, and pancreas5. Additionally, PEPT1 is suggested to mediate intracellular transport, as it was found in nuclei and lysosomes6. In contrast to PEPT1, PEPT2 was characterized as a high-affinity, low-capacity transporter7 and found to be expressed especially in kidney, responsible for the renal reabsorption of filtered di- and tripeptides, as well as peptide-like agents8. In addition, this transporter is present in brain, here with a particular role in peptide uptake out of the cerebrospinal fluid into the choroid plexus9, lung10, skin11 and mammary gland12. PEPT2 had significant expression in the choroid plexus epithelial cells13. The choroid plexus acts as a barrier between the blood and the cerebrospinal fluid (CSF) which surrounds the brain and contains neuronal nutrients and waste. PEPT2 has been implicated in the clearance of peptides from the CSF, acting as an efflux pump14,15 and ensuring CSF homoeostasis16,17. The expression of PEPT2 in the choroid plexus and the lung highlight the versatility of the transporters and the necessity for a deeper understanding of the transporters to assess the factors which influence their activity. This is also highly relevant to medicine, as PEPT1 and PEPT2 have been implicated in the transport and retention of peptidomimetic drugs18.PEPT2 expression has been observed in the lung10,12,19-22. Lung epithelial tissue

Target Details

	was shown to contain PEPT2 messenger ribonucleic acid (mRNA), and white lung preparations are able to transport fluorophore conjugated peptide, indicating functional PEPT2 expression. It is not clear what the primary function of PEPT2 is in the lung. It is a possibility that PEPT2 functions as part of the innate immune system23.
Gene ID:	57738
UniProt:	Q9ES07

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: 1:200-1:500
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).