Datasheet for ABIN7581973

anti-SLC25A18 antibody (Intracellular)

Go to Product page

Overview

Quantity:	50 µL
Target:	SLC25A18
Binding Specificity:	AA 95-110, Intracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SLC25A18 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Purpose:	A Rabbit polyclonal antibody to SLC25A18 (GC2)
Immunogen:	(C)RQLLMQDGTQRNLKME, corresponding to amino acid residues 95-110 of mouse SLC25A18
Sequence:	(C)RQLLMQDGTQ RNLKME
Isotype:	IgG
Specificity:	Intracellular, 1st loop.
Predicted Reactivity:	Rat - identical Human - 13 out of 16 amino acid identical
Characteristics:	Anti-SLC25A18 (GC2) Antibody (ABIN7581973) is a highly specific antibody directed against an epitope of the mouse protein. The antibody can be used in western blot and immunohistochemistry applications. It has been designed to recognize SLC25A18 from mouse, rat and human samples.

Product Details

Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	SLC25A18
Alternative Name:	SLC25A18 (SLC25A18 Products)
Background:	Mitochondrial glutamate carrier 2, Glutamate/H(+) symporter 2 Solute carrier family 25 member 18, GC-2,The solute carrier family 25 member 18 (SLC25A18) is one of the mitochondrial glutamate carriers within the SLC25 family, also known as the mitochondrial carrier family (MCF). Alongside SLC25A22, which shares similar structural and functional properties, SLC25A18 facilitates the transport of glutamate across the mitochondrial inner membrane by functioning as a symporter, coupling glutamate transport with proton movement to maintain mitochondrial pH and ionic balance1,3. SLC25A18 is predominantly expressed in the brain, liver, and testis, with comparatively lower levels in tissues like the breast, lung, and colon2,3. Its tissue-specific expression aligns with its functional role in nitrogen metabolism and the aspartate-glutamate shuttle, which connects mitochondrial and cytosolic processes critical for energy production and amino acid metabolism1,3. Biological processes involving SLC25A18 include energy metabolism and regulation of the Warburg effect. For instance, in colorectal cancer (CRC), SLC25A18 inhibits the Warburg effect and reduces cell proliferation via the Wnt/β-catenin pathway2. In Alzheimer's disease (AD), elevated SLC25A18 expression contributes to mitochondrial dysfunction and neuronal apoptosis, emphasizing its role in neurodegeneration4,5. These processes highlight the significance of maintaining proper SLC25A18 activity for cellular homeostasis. Dysregulation of SLC25A18 is associated with conditions such as colorectal cancer and neurodegenerative diseases. Immunodetection of SLC25A18 can benefit research into cancer biology, mitochondrial dysfunction, and neurodegeneration, offering insights into both metabolic and signaling pathways relevant to these diseases.
Gene ID:	71803
UniProt:	Q9DB41

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody
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).