

Datasheet for ABIN7581975
anti-SLC30A4 antibody (Intracellular)



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Overview

Quantity:	50 µL
Target:	SLC30A4
Binding Specificity:	AA 33-47, Intracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SLC30A4 antibody is un-conjugated
Application:	Immunohistochemistry (IHC), Western Blotting (WB)

Product Details

Purpose:	A Rabbit Polyclonal antibody to GPRC5B receptor
Immunogen:	(C)DEVSDDEGLSRFNKLR, corresponding to amino acid residues 33 - 47 of rat SLC30A4
Sequence:	(C)DEVSDDEGLSR FNKLR
Isotype:	IgG
Specificity:	Intracellular, N-terminus
Predicted Reactivity:	Mouse - identical, Human - 13 out of 15 amino acid residues identical
Characteristics:	Anti-ZnT4 (SLC30A4) Antibody (ABIN7581975) is a highly specific antibody directed against an epitope of the rat protein. The antibody can be used in western blot and immunohistochemistry applications. It has been designed to recognize ZnT4 from rat, mouse and human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	SLC30A4
Alternative Name:	SLC30A4 (SLC30A4 Products)
Background:	<p>Zinc transporter 4, Solute carrier family 30 member 4, ZnT4 (also known as Zinc transporter 4 and SLC30A4) is a member of the ZnT family of zinc transporters. Zinc transporters tightly regulate zinc homeostasis. Zinc participates in physiological functions such as DNA synthesis, neurotransmission and brain development. Protein-bound zinc stabilizes and functionalizes proteins, while free zinc acts as a signaling molecule. Zinc deficiency leads to mental lethargy, growth retardation and immune dysfunction, while zinc overload can affect the function of lymphocytes and cause copper deficiency. 1 Zinc transporters are classified into two families: The ZnT (SLC30) family and the ZIP (SLC39) family. Most ZnT proteins form homodimers and have six transmembrane domains, with a long His-rich loop between these domains, which may function as a sensor of cytosolic zinc levels. The C- and N- termini of ZnTs are located inside the cytoplasm. ZnT proteins are efflux transporters that reduce cytosolic zinc by transporting it out of the cell or into intracellular compartments. In contrast, ZIP proteins are influx transporters that form homodimers or heterodimers. They have eight transmembrane domains, and their C- and N- termini are both located outside the plasma membrane or in the lumen of a subcellular compartment. 2 ZnT4 is widely expressed in humans, with notable enrichment in the brain as well as several other organs, including the thyroid, lung, testis, heart, skin and pancreas. ZnT4 is expressed in endosomes/lysosomes, the Golgi apparatus and cytoplasmic vesicles, where it is involved in vesicular secretory functions. 3 There is increasing evidence that zinc transporters are connected with the formation of senile plaques in Alzheimer's Disease (AD). Abundant expression and altered distribution of ZnT4 was present in the entire body of the senile plaques of APP/PS1 mice and human AD brains. 1 Also, it has been shown that ZnT4 mutant mice develop balance and spatial memory behavioral abnormalities. 4 Expression of ZnT4 in the mammary gland has been reported in mouse, where it has been shown to cause the lethal milk syndrome (LMS). Mice with LMS are not zinc deficient but females cannot produce milk containing sufficient zinc for the pups to survive. 4</p>
Gene ID:	64469
UniProt:	O55174
Pathways:	Transition Metal Ion Homeostasis

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody
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Application Details

	Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:200
	Application Dilutions Western blot wb: 1:400-1:500

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).