Datasheet for ABIN7043052

anti-CLCN3 antibody (Intracellular)

2 Images

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Overview

Quantity:	25 µL
Target:	CLCN3
Binding Specificity:	AA 592-661, Intracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CLCN3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunochromatography (IC), Immunoprecipitation (IP)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to CLC-3 (CLCN3) Channel
Immunogen:	Immunogen: GST fusion protein Immunogen Sequence: GST fusion protein with the sequence SLVVIVFELTGGLEYIVPLMAAVMTSKWVGDAFGREGIYEAHIRLNGYPFLDAKEEFTHTTLAADVMRPR, corresponding to amino acid residues 592-661 of rat CLC-3
Isotype:	IgG
Specificity:	Intracellular, near the C-terminus
Cross-Reactivity:	Human, Rat
Predicted Reactivity:	rat CLC-5 - 49,70 amino acid residues identicalRat CLC-4 - 46, human,70 amino acid residues identical,rabbit,guinea pig - 69,Mouse - identical, Xenopus laevis - 61

Product Details

Characteristics:	Anti- (CLCN3) Antibody (ABIN7043052, ABIN7044121 and ABIN7044122) 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 from rat, mouse, and human samples.
Purification:	The serum was depleted of anti-GST antibodies by affinity chromatography on immobilized GST and then the IgG fraction was purified on immobilized antigen.
Grade:	KO Validated

Target Details

Target:	CLCN3
Alternative Name:	CLCN3 (CLCN3 Products)
Background:	Chloride channel 3, Chloride transporter ClC-3, H+/Cl- exchange transporter 3,CLC-3 is a member of the voltage-dependent Cl- channel (CLC) family that includes nine known members in mammals. CLC channels can be classified as plasma membrane channels and intracellular organelle channels. The first group includes the CLC-1, CLC-2 CLC-Ka and CLCKb channels. The second group comprises the CLC-3, CLC-4, CLC-5, CLC-6 and CLC-7.CLC channels that function in the plasma membrane are involved in the stabilization of membrane potential and in transepithelial transport. The presumed function of the intracellular CLC channels is support of the acidification of the intraorganellar compartment. In this regard, recent reports indicate that ClC-4 and ClC-5 (and by inference ClC-3) can function as Cl-/H+ antiporters.1, 2The functional unit of the CLC channels is a dimer with each subunit forming a proper pore. Although the crystal structure of bacterial CLC channels was resolved, the topology of the CLC channels is complex and has not been fully elucidated. It is generally accepted that both the N- and C-terminus domains are intracellular while the number and configuration of the transmembrane domains vary greatly between different models. 1,2CLC-3 is widely distributed with prominent expression in tissues of neuroectoderm origin. In the brain, it is highly expressed in the hippocampus, olfactory bulb and olfactory cortex. The channel is also prominently expressed in aortic and coronary vascular smooth muscle cells, aortic endothelial cells and tracheal and alveolar epithelial cells.The physiological function of CLC-3 is not entirely clear, but it has been suggested that CLC-3 generates a shunt current of chloride for v-H+-ATPases, thereby aiding the acidification of endosomes and synaptic vesicles as well as lysosomes. Disruption of the ClC-3 gene in mice causes severe neuronal loss, leading to a complete loss of the hippocampus in adult mice. In addition, CLC-3 has been shown to have a critical role in the respiratory burst and phagocytosis of polymorphonuclear cells, a key cell type of innate host defense. 3,4

Target Details

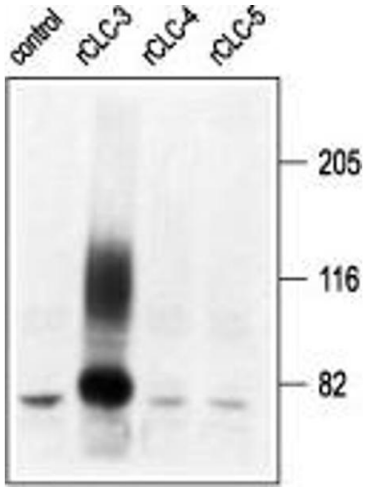
	Alternative names: CLC-3 (CLCN3), Chloride channel 3, Chloride transporter ClC-3, H+/Cl- exchange transporter 3
Gene ID:	84360
NCBI Accession:	NM_001243372
UniProt:	P51792

Application Details

Application Notes:	Antigen preadsorption control: 3 µg fusion protein per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A Application Dilutions Western blot wb: 1:200
Comment:	Cited Application: IHC|ICC Negative Control: (ABIN7235086) Blocking Peptide: (ABIN7235086)
Restrictions:	For Research Use only

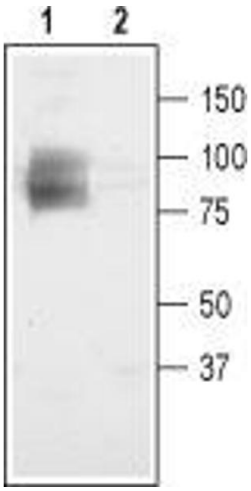
Handling

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 membranes from Xenopus oocytes, expressing CLC-3, CLC-4, and CLC-5, using Anti-CLC-3 (CLCN3) Antibody (ABIN7043052, ABIN7044121 and ABIN7044122) (kindly provided by Prof. Jordi Ehrenfeld, University of Nice).



Western Blotting

Image 2. Western blot analysis of rat brain membranes: - 1. Anti-CLC-3 (CLCN3) Antibody (ABIN7043052, ABIN7044121 and ABIN7044122), (1:200).2. Anti-CLC-3 (CLCN3) Antibody, preincubated with CLC-3/CLCN3 Blocking peptide (#BLP-CL001).