

Product datasheet for **TA328779**

Clcn3 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	GST fusion protein with amino acid residues 592-661 of rat CLC-3. Intracellular, near the C-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1 % BSA, 5% sucrose, 0.025% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	The serum was affinity purified on immobilized CLC-3-His.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	chloride voltage-gated channel 3
Database Link:	NP_445815 Entrez Gene 1182 Human Entrez Gene 84360 Rat P51792



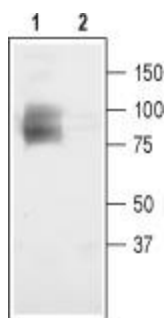
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Background:

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. The 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. CLC-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.

Synonyms:

CLC-3; CLC3

Product images:


Western blot analysis of rat brain membranes: 1. Anti-CLC-3 antibody, (1:200). 2. Anti-CLC-3 antibody, preincubated with a control antigen.