

# CLCN1 Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP22311a

#### **Product Information**

**Application** WB, FC, E **Primary Accession** P35523

**Reactivity** Human, Rat, Mouse

Host Rabbit
Clonality polyclonal
Isotype Rabbit IgG
Clone Names RB57514
Calculated MW 108626

#### **Additional Information**

**Gene ID** 1180

Other Names Chloride channel protein 1, CIC-1, Chloride channel protein, skeletal muscle,

CLCN1, CLC1

**Target/Specificity**This CLCN1 antibody is generated from a rabbit immunized with a KLH

conjugated synthetic peptide between 32-66 amino acids from the human

region of human CLCN1.

**Dilution** WB~~1:2000 FC~~1:25 E~~Use at an assay dependent concentration.

**Format** Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

**Storage** Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** CLCN1 Antibody (N-Term) is for research use only and not for use in

diagnostic or therapeutic procedures.

#### **Protein Information**

Name CLCN1 {ECO:0000303|PubMed:8533761, ECO:0000312|HGNC:HGNC:2019}

**Function** Voltage-gated chloride channel involved in skeletal muscle excitability.

Generates most of the plasma membrane chloride conductance in skeletal muscle fibers, stabilizes the resting membrane potential and contributes to the repolarization phase during action potential firing (PubMed:12456816,

PubMed: 16027167, PubMed: 22521272, PubMed: 22641783,

PubMed:26007199, PubMed:26502825, PubMed:26510092, PubMed:7951242, PubMed:8112288, PubMed:8130334, PubMed:9122265, PubMed:9565403, PubMed:9736777). Forms a homodimeric channel where each subunit has its own ion conduction pathway. Conducts double-barreled currents controlled by two types of gates, two fast glutamate gates that control each subunit independently and a slow common gate that opens and shuts off both subunits simultaneously. Has a significant open probability at muscle resting potential and is further activated upon membrane depolarization (PubMed:10051520, PubMed:10962018, PubMed:29809153, PubMed:31022181). Permeable to small monovalent anions with ion selectivity for chloride > thiocyanate > bromide > nitrate > iodide (PubMed:9122265, PubMed:9565403).

**Cellular Location** 

Cell membrane; Multi-pass membrane protein Cell membrane, sarcolemma {ECO:0000250 | UniProtKB:Q64347}; Multi-pass membrane protein. Cell membrane, sarcolemma, T-tubule {ECO:0000250 | UniProtKB:Q64347}; Multi-pass membrane protein

**Tissue Location** 

Predominantly expressed in skeletal muscles.

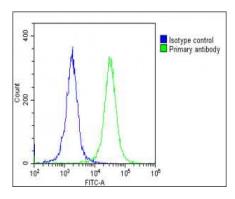
## **Background**

Voltage-gated chloride channel. Chloride channels have several functions including the regulation of cell volume; membrane potential stabilization, signal transduction and transepithelial transport.

### References

Steinmeyer K.,et al.EMBO J. 13:737-743(1994). Scherer S.W.,et al.Science 300:767-772(2003). Koch M.C.,et al.Science 257:797-800(1992). George A.L. Jr.,et al.Nat. Genet. 3:305-310(1993). Lorenz C.,et al.Hum. Mol. Genet. 3:941-946(1994).

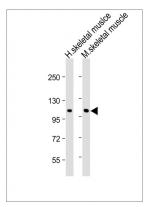
## **Images**



Overlay histogram showing Hela cells stained with AP22311a(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22311a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(1583138) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10,000 events was performed.

All lanes: Anti-CLCN1 Antibody (N-Term) at 1:2000 dilution Lane 1: Human skeletal muslce lysate Lane 2: Mouse skeletal muscle lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 109 kDa Blocking/Dilution buffer: 5%

NFDM/TBST.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.