

# CLC4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP6329f

## Product Information

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<b>Application</b>	WB, IF, IHC-P-Leica, E
<b>Primary Accession</b>	<a href="#">P51793</a>
<b>Other Accession</b>	<a href="#">P51794</a> , <a href="#">Q61418</a>
<b>Reactivity</b>	Human
<b>Predicted</b>	Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB0752
<b>Calculated MW</b>	84917
<b>Antigen Region</b>	663-689

## Additional Information

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<b>Gene ID</b>	1183
<b>Other Names</b>	H(+)/Cl(-) exchange transporter 4, Chloride channel protein 4, ClC-4, Chloride transporter ClC-4, CLCN4
<b>Target/Specificity</b>	This CLC4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 663-689 amino acids from the C-terminal region of human CLC4.
<b>Dilution</b>	WB~~1:1000 IF~~1:10~50 IHC-P-Leica~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
<b>Storage</b>	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.
<b>Precautions</b>	CLC4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CLCN4
<b>Function</b>	Strongly outwardly rectifying, electrogenic H(+)/Cl(-)exchanger which

mediates the exchange of chloride ions against protons (PubMed:[18063579](#), PubMed:[23647072](#), PubMed:[25644381](#), PubMed:[27550844](#), PubMed:[28972156](#)). The CLC channel family contains both chloride channels and proton-coupled anion transporters that exchange chloride or another anion for protons (PubMed:[29845874](#)). The presence of conserved gating glutamate residues is typical for family members that function as antiporters (PubMed:[29845874](#)).

### Cellular Location

Early endosome membrane {ECO:0000250|UniProtKB:P51794}; Multi-pass membrane protein. Late endosome membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein. Recycling endosome membrane; Multi-pass membrane protein. Note=Localizes to late endosome membrane, lysosome membrane and recycling endosome membrane in the presence of CLCN3

### Tissue Location

Abundant in skeletal muscle and also detectable in brain and heart

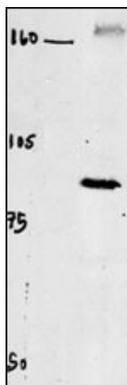
## Background

The CLCN family of voltage-dependent chloride channel genes comprises nine members (CLCN1-7, Ka and Kb) which demonstrate quite diverse functional characteristics while sharing significant sequence homology. Chloride channel 4 has an evolutionary conserved CpG island and is conserved in both mouse and hamster. This gene is mapped in close proximity to APXL (Apical protein *Xenopus laevis*-like) and OA1 (Ocular albinism type I), which are both located on the human X chromosome at band p22.3. The physiological role of chloride channel 4 remains unknown but may contribute to the pathogenesis of neuronal disorders.

## References

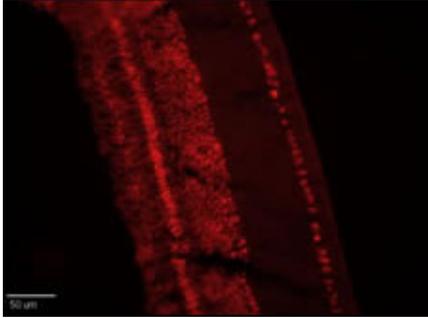
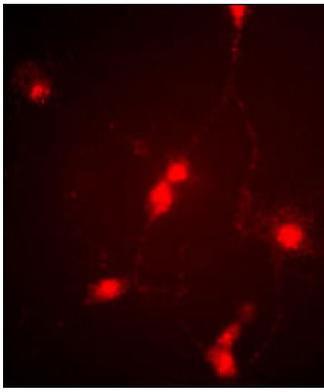
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Dinulos, M.B., et al., *Genomics* 35(1):244-247 (1996).  
Schnur, R.E., et al., *Hum. Genet.* 95(5):594-595 (1995).  
van Slegtenhorst, M.A., et al., *Hum. Mol. Genet.* 3(4):547-552 (1994).

## Images



Western blot of chicken brain tissue incubated with CLC4 Antibody (C-term) (Cat.# AP6329f). Data courtesy of Emily McMains, Louisiana State University.

Immunofluorescence image of cultured chick retinal amacrine (neuronal) cells labeled with CLC4 Antibody (C-term) (Cat # AP6329f). Data courtesy of Emily McMains, Louisiana State University.



Retinae were collected from adult White Leghorn chicken and fixed in the eyecup for two hours in 4% Paraformaldehyde (in PBS). Retinae were then removed from the eyecups and incubated in 30% sucrose (in PBS) overnight. Retinal tissue was embedded and frozen in OCT compound and cut into ~15um sections on a cryotome. Sections were blocked in 5% normal goat serum (in 1%BSA/.1%saponin PBS) for one hour and then incubated at RT with 1:250 (1%BSA/.1% saponin PBS) CIC4 antibody (Cat.# AP6329f) for 1 hour. Sections were then washed in PBS (3X10minutes) and then treated with secondary antibody (1:500 Cy3) for one hour. After another PBS wash series, sections were coverslipped and antibody labeling was visualized at 20X with a Leica upright microscope using a TRITC filter set and Xenon lamp illumination. (Crousillac et al, 2003)

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