

CLC4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6329f

Product Information

Application	WB, IF, IHC-P-Leica, E
Primary Accession	P51793
Other Accession	P51794 , Q61418
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB0752
Calculated MW	84917
Antigen Region	663-689

Additional Information

Gene ID	1183
Other Names	H(+)/Cl(-) exchange transporter 4, Chloride channel protein 4, CLC-4, Chloride transporter CLC-4, CLCN4
Target/Specificity	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.
Dilution	WB~~1:1000 IF~~1:10~50 IHC-P-Leica~~1:100~500 E~~Use at an assay dependent concentration.
Format	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.
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	CLC4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CLCN4
Function	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

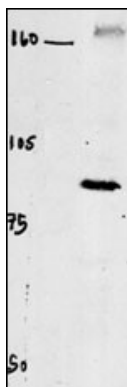
Background

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

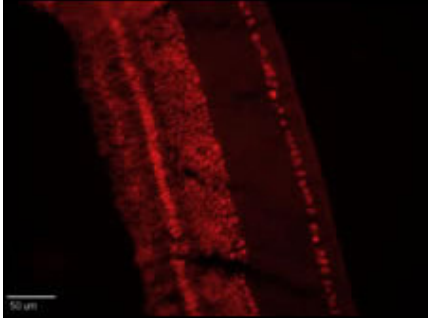
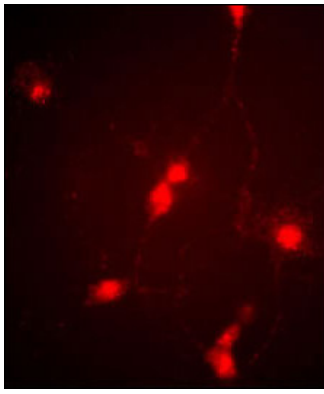
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 Lamb, F.S., et al., *J. Mol. Cell. Cardiol.* 31(3):657-666 (1999).
 Dinulos, M.B., et al., *Genomics* 35(1):244-247 (1996).
 Schnur, R.E., et al., *Hum. Genet.* 95(5):594-595 (1995).
 van Slegtenhorst, M.A., et al., *Hum. Mol. Genet.* 3(4):547-552 (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 ~15μm 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)

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