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CLC4 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6329f

Specification

CLC4 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P51793

CLC4 Antibody (C-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP6329f was selected from the C-term region of human CLC4. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CLC4 Antibody (C-term) Blocking Peptide - Protein Information

Name CLCN4

CLC4 Antibody (C-term) Blocking Peptide - 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.

CLC4 Antibody (C-term) Blocking Peptide - References

Wang, T., et al., Gastroenterology 126(4):1157-1166 (2004).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).

Function
Strongly outwardly rectifying, electrogenic H(+)/Cl(-)exchanger which mediates the exchange of chloride ions against protons (PubMed:18063579, PubMed:28972156, PubMed:23647072, PubMed:27550844, PubMed:25644381). 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

CLC4 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides