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CLIC4 Antibody Blocking Peptide

Synthetic peptide
Catalog # BP7564a

Specification

CLIC4 Antibody Blocking Peptide - Product Information

Primary Accession Q9Y696

CLIC4 Antibody Blocking Peptide - Additional Information

Gene ID 25932

Other Names
Chloride intracellular channel protein 4, Intracellular chloride ion channel protein p64H1, CLIC4

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7564a was selected from the region of human CLIC4. 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.

CLIC4 Antibody Blocking Peptide - Protein Information

Name CLIC4 {ECO:0000303|PubMed:12163372, ECO:0000312|HGNC:HGNC:13518}

Function
In the soluble state, catalyzes glutaredoxin-like thiol disulfide exchange reactions with reduced glutathione as electron donor (PubMed:25581026, PubMed:37759794). Can insert into membranes and form voltage-dependent multi-ion conductive channels. Membrane insertion seems to be redox-regulated and may occur only under oxidizing conditions (By similarity) (PubMed:16176272). Has alternate cellular functions like a potential role in angiogenesis or in maintaining apical-basolateral membrane polarity during mitosis and cytokinesis. Could also promote endothelial cell proliferation and regulate endothelial morphogenesis (tubulogenesis). Promotes cell-surface expression of HRH3.

Cellular Location
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasmic vesicle membrane; Single-pass membrane protein. Nucleus. Cell membrane; Single-pass membrane protein. Mitochondrion {ECO:0000250|UniProtKB:Q9Z0W7}. Cell junction. Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9Z0W7}; Single-pass membrane protein {ECO:0000250|UniProtKB:Q9Z0W7}. Note=Colocalized with AKAP9 at the centrosome and midbody. Exists both as soluble cytoplasmic protein and as membrane protein with probably a single transmembrane domain Present in an intracellular vesicular compartment that likely represent trans-Golgi network vesicles. Might not be present in the nucleus of cardiac cells. {ECO:0000250|UniProtKB:Q9Z0W7, ECO:0000269|PubMed:14569596}

Tissue Location
Detected in epithelial cells from colon, esophagus and kidney (at protein level). Expression is prominent in heart, kidney, placenta and skeletal muscle.

CLIC4 Antibody Blocking Peptide - Protocols

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

- Blocking Peptides

CLIC4 Antibody Blocking Peptide - Images

CLIC4 Antibody Blocking Peptide - Background

Chloride channels are a diverse group of proteins that regulate fundamental cellular processes including stabilization of cell membrane potential, transepithelial transport, maintenance of intracellular pH, and regulation of cell volume. Chloride intracellular channel 4 (CLIC4) protein, encoded by the CLIC4 gene, is a member of the p64 family; the gene is expressed in many tissues and exhibits a intracellular vesicular pattern in Panc-1 cells (pancreatic cancer cells).

CLIC4 Antibody Blocking Peptide - References

Singh,H.,FEBS J. 274 (24), 6306-6316 (2007)Suh,K.S.,J. Cell. Sci. 120 (PT 15), 2631-2640 (2007)Suh,K.S.,Clin. Cancer Res. 13 (1), 121-131 (2007)