

CLIC4 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM1125a

Specification

CLIC4 Antibody - Product Information

Application	WB, IHC-P,E
Primary Accession	O9Y696
Other Accession	NP_039234
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1κ

CLIC4 Antibody - Additional Information

Gene ID 25932

Other Names

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

Target/Specificity

Purified His-tagged CLIC4 protein was used to produced this monoclonal antibody.

Dilution

WB~~1:2000
IHC-P~~1:50~100

Format

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

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

CLIC4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CLIC4 Antibody - 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

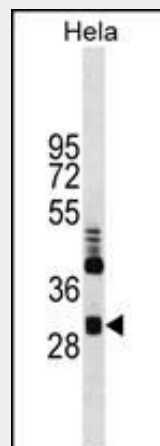
Detected in epithelial cells from colon, esophagus and kidney (at protein level). Expression is prominent in heart, kidney, placenta and skeletal muscle.

CLIC4 Antibody - Protocols

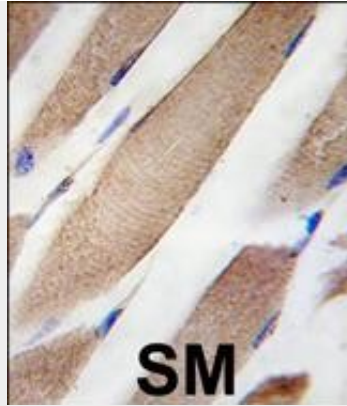
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CLIC4 Antibody - Images



Western blot analysis of anti-CLIC4 Monoclonal Antibody (Cat.#AM1125a) in HeLa cell line lysates. CLIC4 (arrow) was detected using the ascites Mab.



Formalin-fixed and paraffin-embedded human skeletal muscle tissue reacted with CLIC4 Antibody (Cat.#AM1125a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

CLIC4 Antibody - 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 - References

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. *Mol Med*, 2010 Jul-Aug. PMID 20379614. Mutation detection in candidate genes for benign familial infantile seizures on a novel locus. Li N, et al. *Int J Neurosci*, 2010 Mar. PMID 20374090. Spatiotemporal regulation of chloride intracellular channel protein CLIC4 by RhoA. Ponsioen B, et al. *Mol Biol Cell*, 2009 Nov. PMID 19776349. S100A4 and bone morphogenetic protein-2 codependently induce vascular smooth muscle cell migration via phospho-extracellular signal-regulated kinase and chloride intracellular channel 4. Spiekerkoetter E, et al. *Circ Res*, 2009 Sep 25. PMID 19713532. CLIC4 mediates TGF-beta1-induced fibroblast-to-myofibroblast transdifferentiation in ovarian cancer. Yao Q, et al. *Oncol Rep*, 2009 Sep. PMID 19639201.