



# Recombinant Protein Technical Manual

## Recombinant Human CLIC4 Protein (His Tag)

RPES2978

### Product Data:

**Product SKU:** RPES2978

**Size:** 20µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q9Y696

### Protein Information:

#### Molecular Mass:

**AP Molecular Mass:** 30 kDa

**Tag:** N-His

#### Bio-activity:

**Purity:** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

#### Application:

**Synonyms:** CLIC4L;H1;huH1;MTCLIC;p64H1

## Immunogen Information:

**Sequence:** Ala 2-Lys 253

## Background:

Chloride intracellular channel protein 4, also known as Intracellular chloride ion channel protein p64H1 and CLIC4, is a member of the chloride channel CLIC family. It contains one GST C-terminal domain. CLIC4 is a member of a family of intracellular chloride channels. It is regulated by p53, c-Myc, and tumor necrosis factor-alpha. CLIC4 is detected in epithelial cells from colon, esophagus and kidney (at protein level). CLIC4 has alternate cellular functions like a potential role in angiogenesis or in maintaining apical-basolateral membrane polarity during mitosis and cytokinesis. CLIC4 could promote endothelial cell proliferation and regulate endothelial morphogenesis (tubulogenesis). Expression of CLIC4 is prominent in heart, kidney, placenta and skeletal muscle. Overexpression of CLIC4 in cancer cells inhibits tumor growth. Conversely, overexpression of CLIC4 in tumor stromal cells stimulates tumor growth. Thus, CLIC4 participates in normal and pathological processes and may serve as a useful target for therapies in disturbances of homeostasis and neoplastic transformation. Loss of CLIC4 in tumor cells and gain in tumor stroma is common to many human cancers and marks malignant progression. Up-regulation of CLIC4 in tumor stroma is coincident with myofibroblast conversion, generally a poor prognostic indicator. Reactivation and restoration of CLIC4 in tumor cells or the converse in tumor stromal cells could provide a novel approach to inhibit tumor growth.