



**LD Biopharma, Inc.**  
9924 Mesa Rim Road Suite B  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human CLIC3 Protein  
**Catalog Number:** hRP-0897  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

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. Human Chloride intracellular channel 3 (CLIC3) is a member of the p64 family and is predominantly localized in the nucleus and stimulates chloride ion channel activity. In addition, this protein may participate in cellular growth control, based on its association with ERK7, a member of the MAP kinase family.

Full-length mature human CLIC3 (236 aa) gene was constructed with 15 aa N-terminal T7 tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** CLIC3  
**Accession Number:** NP\_004660  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Murthi,P., et al., *Placental CLIC3 is increased in fetal growth restriction and pre-eclampsia affected human pregnancies.* Placenta 33 (9), 741-744 (2012)



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Suginta, W., *Chloride intracellular channel protein CLIC4 (p64H1) binds directly to brain dynamin I in a complex containing actin, tubulin and 14-3-3 isoforms.* *Biochem. J.* 359 (PT 1), 55-64 (2001)

## **Applications**

1. May be used for in vitro CLIC3 mediated intracellular chloride flow regulation study by intracellular delivery of this protein with “ProFectin” reagent.
2. May be used for mapping CLIC3 protein – protein interaction assay.
3. As soluble / native protein, which may be used as substrate protein for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. Potential diagnostic biomarker for either fetal growth restriction or pre-eclampsia.
5. May be used for specific antibody production.

## **Quality Control**

Purity: > 90% by SDS-PAGE.

## **Recombinant Protein Sequence**

MASMTGGQQMGRGEFMAETKLQLFVKASEDGESVGHCPSCQRLFMVLLKGVPF<sup>TLTTVD</sup>TRRS  
PDVLKDFAPGSQLPILLYSDAKTDTLQIEDFLEETLGPPDFPSLAPRYRESNTAGNDVFHKFS  
AFIKNPVPAQDEALYQQLLRALARLDSYLRAPLEHELAGEPQLRESRRRFLDGDRLTLADCSLL  
PKLHIVDTVCAHFRQAPIPAELRGVRRYLDSAMQEKEFKYTCPHSAEILAAAYRPAVHPR