



# Recombinant Protein Technical Manual

## Recombinant Human Calumenin Protein (aa 20-315, His Tag) RPES1356

### Product Data:

**Product SKU:** RPES1356

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** O43852

### Protein Information:

**Molecular Mass:** 36.0 kDa

**AP Molecular Mass:** 54 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**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 a 0.2 µm filtered solution of 20mM PB,150mM NaCl,pH7.4.

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

**Application:**

**Synonyms:** Calumenin; Crockalbin; IEF SSP 9302; CALU

## Immunogen Information:

**Sequence:** Lys20-Phe315

## Background:

Calumenin is a secreted calcium-binding protein that belongs to the CREC family. Calumenin contains six EF-hand domains and is expressed at high levels in the heart, placenta and skeletal muscle. Human Calumenin is synthesized as a 315 amino acid precursor that contains a 19 amino acid signal sequence, and a 296 amino acid mature chain. Calumenin localizes to the endoplasmic reticulum (ER) and sarcoplasmic reticulum (SR) of mammalian tissues which plays a role in ER functions as protein folding and sorting. Calumenin is involved in the regulation of vitamin K-dependent carboxylation of multiple N-terminal glutamate residues. It seems to inhibit  $\gamma$ -carboxylase GGCX.