

# Human CALU / Calumenin Protein (His Tag)



Sino Biological  
Biological Solution Specialist

Catalog Number: 13486-H08H

## General Information

### Gene Name Synonym:

CALU

### Protein Construction:

A DNA sequence encoding the human CALU (O43852-1) (Met1-Arg311) was expressed with a polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per  $\mu\text{g}$  of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at  $-70\text{ }^{\circ}\text{C}$

**Predicted N terminal:** Lys 20

### Molecular Mass:

The recombinant human CALU consists of 303 amino acids and predicts a molecular mass of 35.9 KDa. It migrates as an approximately 46-52 KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

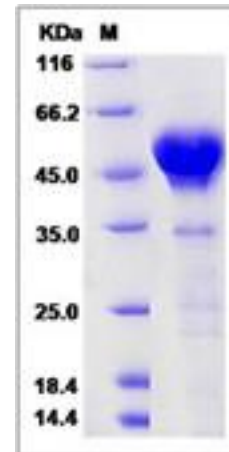
Store it under sterile conditions at  $-20\text{ }^{\circ}\text{C}$  to  $-80\text{ }^{\circ}\text{C}$  upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Calumenin belongs to the CREC family. It contains 6 EF-hand domains. Calumenin is expressed in skeletal muscle (at protein level). Calumenin interacts with GGCX and RYR1 in the presence of calcium ions, but not in the presence of EDTA. Calumenin is involved in regulation of vitamin K-dependent carboxylation of multiple N-terminal glutamate residues. It seems to inhibit gamma-carboxylase GGCX. Calumenin also binds 7 calcium ions with a low affinity and may modulate calcium release from the sarcoplasmic reticulum.

## References

- Hartley JL, *et al.* (2001) DNA cloning using in vitro site-specific recombination. *Genome Res.* 10 (11):1788-95.
- Vorum H, *et al.* (2000) Calumenin interacts with serum amyloid P component. *FEBS Lett.* 465 (2-3):129-34.
- Vorum H, *et al.* (1999) n calumenin localizes to the secretory pathway and is secreted to the medium. *Exp Cell Res.* 248(2):473-81.

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