

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

Catalog Number: PKSH033293

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

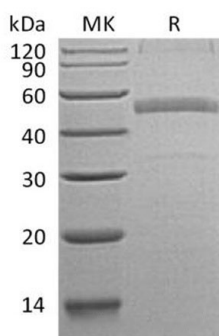
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human Calumenin protein Lys20-Phe315, with an C-terminal His
<b>Calculated MW</b>	36.0 kDa
<b>Observed MW</b>	40-55 kDa
<b>Accession</b>	O43852
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 82 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
<b>Reconstitution</b>	Please refer to the specific buffer information in the printed manual.

### Data



> 82 % as determined by reducing SDS-PAGE.

### 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.

### For Research Use Only