

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

Catalog No. PKSH033293

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

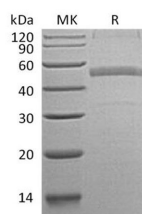
### Description

<b>Synonyms</b>	Calumenin;Crocabin;IEF SSP 9302;CALU
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Lys20-Phe315
<b>Accession</b>	O43852
<b>Calculated Molecular Weight</b>	36.0 kDa
<b>Observed molecular weight</b>	40-55 kDa
<b>Tag</b>	C-His
<b>Bioactivity</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. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### 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

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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.