

# Recombinant Human Calreticulin-3/CALR3 Protein

Catalog Number:PKSH032151



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

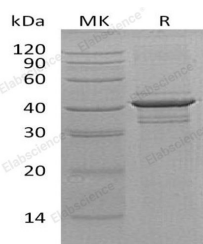
## Description

<b>Synonyms</b>	Calreticulin-3;calreticulin-2;calsperin;CALR3;CRT2
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Thr 20-Leu384
<b>Accession</b>	Q96L12
<b>Calculated Molecular Weight</b>	42.9 kDa
<b>Observed molecular weight</b>	40-50 kDa
<b>Tag</b>	None

## Properties

<b>Purity</b>	> 95 % 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 Tris-HCl, 150mM NaCl, 5% Trehalose, 5% Mannitol, 0.02% Tween 80, 1mM EDTA, pH8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization. Please refer to the printed manual for detailed information.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

Calreticulin-3 belongs to the calreticulin family, members of which are calcium binding chaperones localized mainly in the endoplasmic reticulum. It can be divided into a N-terminal globular domain, a proline-rich P-domain forming an elongated arm-like structure and a C-terminal acidic domain. During spermatogenesis process, Calreticulin-3 may act as a lectin-independent chaperone for specific client proteins such as ADAM3. Defects in CALR3 are the cause of familial hypertrophic cardiomyopathy type 19 (CMH19), it is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain.

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