Recombinant Human Calreticulin-3/CALR3 Protein

Catalog Number: PKSH032151

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

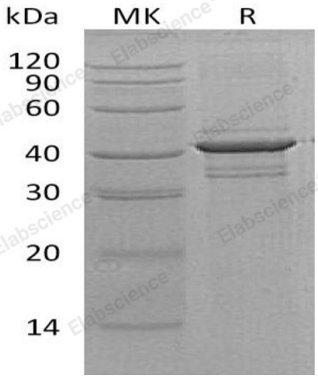
Description

Species	Human
Source	E.coli-derived Human Calreticulin-3;CALR3 protein Thr 20-Leu384
Calculated MW	42.9 kDa
Observed MW	40-50 kDa
Accession	Q96L12
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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 Tris-HCl, 150mM NaCl, 5% Trehalose, 5% Mannitol, 0.02% Tween 80, 1mM EDTA, pH8.0. 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.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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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 hypertroph y, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain.