

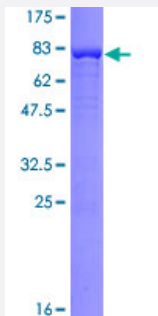
Full-Length

CALR (Human) Recombinant Protein (P01)

Catalog # H00000811-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human CALR full-length ORF (AAH02500.1, 1 a.a. - 417 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MLLSVPLLLGLLGLAVAEPVYFKEQFLDGDGWTSRWIESKHKSDFGKFVLSSGKFYGDEEKDK
GLQTSQDARFYALSASFEPFSNKGQTLVVQFTVKHEQNIDCGGGYVKLFPNSLDQTMHGDSEY
NIMFGPDICPGTKKVHVIFNYKGKNVLINKDIRCKDDEFTHLYTLVRPDNTYEVKIDNSQVESGSL
EDDWDFLPPKKIKDPDASKPEDWDERAKIDDPTDSKPEDWDKPEHIPDPDAKKPEDWDEEMD
GEWEPPVIQNPEYKGEWKPRQIDNPDYKGTWIHPEIDNPEYSPDPSIAYDNFVGLGLDLWQVKS
GTIFDNFLITNDEAYAEFEGNETWGVTKAAEKQMKDKQDEEQRLKEEEEDKKRKEEEEAEDKED
DEKDEDEDEEDKEDEEEEDVPGQAKDEL

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

71.61

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — CALR

Entrez GeneID [811](#)

GeneBank Accession# [BC020493](#)

Protein Accession# [AAH02500.1](#)

Gene Name CALR

Gene Alias CRT, FLJ26680, RO, SSA, cC1qR

Gene Description calreticulin

Omim ID [109091](#)

Gene Ontology [Hyperlink](#)

Gene Summary

Calreticulin is a multifunctional protein that acts as a major Ca^{2+} -binding (storage) protein in the lumen of the endoplasmic reticulum. It is also found in the nucleus, suggesting that it may have a role in transcription regulation. Calreticulin binds to the synthetic peptide KLGFFKR, which is almost identical to an amino acid sequence in the DNA-binding domain of the superfamily of nuclear receptors. Calreticulin binds to antibodies in certain sera of systemic lupus and Sjogren patients which contain anti-Ro/SSA antibodies, it is highly conserved among species, and it is located in the endoplasmic and sarcoplasmic reticulum where it may bind calcium. The amino terminus of calreticulin interacts with the DNA-binding domain of the glucocorticoid receptor and prevents the receptor from binding to its specific glucocorticoid response element. Calreticulin can inhibit the binding of androgen receptor to its hormone-responsive DNA element and can inhibit androgen receptor and retinoic acid receptor transcriptional activities in vivo, as well as retinoic acid-induced neuronal differentiation. Thus, calreticulin can act as an important modulator of the regulation of gene transcription by nuclear hormone receptors. Systemic lupus erythematosus is associated with increased autoantibody titers against calreticulin but calreticulin is not a Ro/SS-A antigen. Earlier papers referred to calreticulin as an Ro/SS-A antigen but this was later disproven. Increased autoantibody titer against human calreticulin is found in infants with complete congenital heart block of both the IgG and IgM classes. [provided by RefSeq]

Other Designations

Sicca syndrome antigen A (autoantigen Ro; calreticulin)|autoantigen Ro

Publication Reference

- [Calnexin/Calreticulin and Assays Related to N-Glycoprotein Folding In Vitro.](#)

Yoshito Ihara, Midori Ikezaki, Maki Takatani, Yukishige Ito.

Methods in Molecular Biology (Clifton, N.J.) 2020 Jan; 2132:295.

Application: Enzyme, Func, Recombinant proteins

Pathway

- [Antigen processing and presentation](#)

Disease

- [Cardiovascular Diseases](#)
- [Diabetes Mellitus](#)
- [Edema](#)