CALR
Recombinant Human Calrecticulin His

Catalog No.	CS465A	**Quantity:**	5 µg
	CS465B		25 µg
	CS465C		1 mg

Alternate Names: cC1qR, CRT, RO, SSA, CRP55, ERp60, CRTC

Description: CALR is a multifunctional protein that acts as a main Ca(2+)-binding (storage) protein in the lumen of the endoplasmic reticulum. Calreticulin is localized in the nucleus, and participates in transcription regulation. Calreticulin binds to the synthetic peptide KLGFFKR, which is nearly identical to an amino acid sequence in the DNA-binding domain of the superfamily of nuclear receptors. CALR binds to antibodies in specific sera of systemic lupus and Sjogren patients which have anti-Ro/SSA antibodies, it is well conserved among species, and it is positioned in the endoplasmic and sarcoplasmic reticulum where it binds calcium. The amino terminus of CALR interacts with the DNA-binding domain of the glucocorticoid receptor and prevents the receptor from binding to its specific glucocorticoid response element. CALR reduces the binding of androgen receptor to its hormone-responsive DNA element and inhibits androgen receptor and retinoic acid receptor transcriptional activities *in vivo,* as well as retinoic acid-induced neuronal differentiation. Therefore, CALR acts as a significant modulator of the regulation of gene transcription by nuclear hormone receptors.

Recombinant Human CALR is a single, non-glycosylated, polypeptide chain containing 421 amino acids (aa 18-417) fused to a 20 amino acid His-Tag at the N-terminal end.

Gene ID: 811

Source: *E. coli*

MolecularMass: 48.7 kDa

Formulation: Sterile filtered colorless solution containing 20 mM Tris-HCl, pH 8, + 1 mM DTT + 0.1 M NaCl + 10% glycerol.

Purity: >85% as determined by SDS-PAGE.

Amino Acid Sequence: **MGSSHHHHHH SSGLVPRGSH** MEPAVYFKEQ FLDGDGWTSR WIESKHKSDF GKFVLSSGKF YGDEEKDKGL QTSQDARFYA LSASFEPFSN KGQTLVVQFT VKHEQNIDCG GGYVKLFPNS LDQTDMHGDS EYNIMFGPDI CGPGTKKVHV IFNYKGKNVL INKDIRCKDD EFTHLYTLIV RPDNTYEVKI DNSQVESGSL EDDWDFLPPK KIKDPDASKP EDWDERAKID DPTDSKPEDW DKPEHIPDPD AKKPEDWDEE MDGEWEPPVI QNPEYKGEWK PRQIDNPDYK GTWIHPEIDN PEYSPDPSIY AYDNFGVLGL DLWQVKSGTI FDNFLITNDE AYAEEFGNET WGVTKAAEKQ MKDKQDEEQR LKEEEEDKKR KEEEEAEDKE DDEDKDEDEE DEEDKEEDEE EDVPGQAKDE L.

Storage & Stability: Store at 2-4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Avoid repeated freeze-thaw cycles.**

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