Recombinant Human CALR/Calreticulin Protein (Fc Tag)

Catalog No. PKSH030607

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

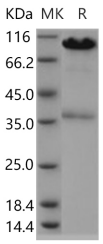
Description

Synonyms	cC1qR;CRT;HEL-S-99n;RO;SSA
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Ala413
Accession	P27797
Calculated Molecular Weight	73.0 kDa
Observed molecular weight	96&38 kDa
Tag	C-hFc
Bioactivity	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 sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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



> 95 % as determined by reducing SDS-PAGE.

Background

Calreticulin is a multifunctional protein. It acts as a main Ca(2+)-binding (storage) protein in the lumen of the endoplasmic reticulum. Calreticulin binds Ca2+ ions (a second messenger in signal transduction); rendering it inactive.

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The Ca2+ is bound with low affinity; but high capacity; and can be released on a signal. Located in storage compartments associated with the endoplasmic reticulum; calreticulin also binds to misfolded proteins and prevents them from being exported from the endoplasmic reticulum to the golgi apparatus. 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 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; calreticulin acts as a significant modulator of the regulation of gene transcription by nuclear hormone receptors.

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