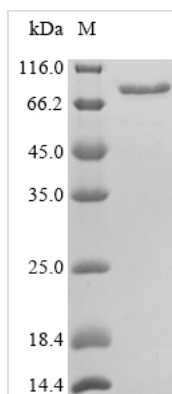




Recombinant Mouse Calreticulin (Calr)

Product Code	CSB-EP004458MO
Relevance	Calcium-binding chaperone that promotes folding, oligomeric assbly and quality control in the endoplasmic reticulum (ER) via the calreticulin/calnexin cycle. This lectin interacts transiently with almost all of the monoglucosylated glycoproteins that are synthesized in the ER. Interacts with the DNA-binding domain of NR3C1 and mediates its nuclear export. Involved in maternal gene expression regulation. May participate in oocyte maturation via the regulation of calcium homeostasis .
Abbreviation	Recombinant Mouse Calr protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P14211
Alias	CRP55Calregulin;Endoplasmic reticulum resident protein 60 ;ERp60HACBP
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	DPAIYFKEQFLDGDWNTNRWVESKHKSDFGKFVLSSGKFYGDLEKDKGLQTS QDARFYALSAKFEPFSNKGQTLVVQFTVKHEQNIDCGGGYVKLFPSGLDQKD MHGDSEYNIMFGPDICGPGTKKVHVIFNYKGKNVLINKDIRCKDDEFTHLYTLIV RPDNTYEVKIDNSQVESGSLEDDWDFLPPKKIKDPDAAKPEDWDERAKIDDPT DSKPEDWDKPEHIPDPDAKKPEDWDEEMDGEWEPPVIQNPEYKGEWKPRQI DNPDYKGTWIHPEIDNPEYSPDANIYAYDSFAVLGLDLWQVKSQTIFDNFLITN DEAYAEFFGNETWGVTKAAEKQMKDKQDEEQRLKEEEEDKKRKEEEEAEDK EDDDDRDEDEDEDEDEKEEDEEEESPGQAKDEL
Research Area	Others
Source	E.coli
Target Names	Calr
Expression Region	18-416aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal GST-tagged
Mol. Weight	73.3kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

This Recombinant Mouse Calr protein was made through genetic engineering. By putting the Calr gene into the genetic material of E.coli cell, the E.coli could be used as factories or producers to make the desired Calr protein for research uses. The expression region of this protein is at 18-416aa. N-terminal GST tag was used in the expression process. The purity is 90%+ determined by SDS-PAGE.

Calreticulin (CALR) is a Ca^{2+} -binding endoplasmic reticulum (ER) protein that aids the folding of proteins destined to secretion and insertion in the plasma membrane, de facto providing a major contribution to the maintenance of cellular homeostasis when unfolded proteins accumulate within the ER (e.g., in the context of viral infection). Moreover, CALR mechanistically contributes to the initiation of adaptive anticancer immunity in the context of immunogenic cell death (ICD), a functional variant of regulated cell death (RCD) that is sufficient to elicit an antigen-specific immune response in immunocompetent, syngeneic hosts (provided that dying cells express antigens not covered by central or peripheral tolerance). In particular, CALR exposed on the surface of cancer cells undergoing ICD mediates robust pro-phagocytic effects, hence facilitating the uptake of dying cells or their corpses by antigen-presenting cells (APCs), in particular immature dendritic cells (DCs), which migrate to lymph nodes to cross-prime tumors specific naïve CD8^{+} T cells.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at $-20^{\circ}\text{C}/-80^{\circ}\text{C}$. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at $-20^{\circ}\text{C}/-80^{\circ}\text{C}$. The shelf life of lyophilized form is 12 months at $-20^{\circ}\text{C}/-80^{\circ}\text{C}$.