

Calreticulin/CALR Protein, Mouse (P.pastoris, His, solution)

Cat. No.:	HY-P71721Y
Synonyms:	Calr; Calreticulin; CRP55; Calregulin; Endoplasmic reticulum resident protein 60; ERp60; HACBP
Species:	Mouse
Source:	P. pastoris
Accession:	P14211 (18D-416L)
Gene ID:	12317
Molecular Weight:	Approximately 48.3 kDa

PROPERTIES

AA Sequence	<pre> D P A I Y F K E Q F L D G D A W T N R W V E S K H K S D F G K F V L S S G K F Y G D L E K D K G L Q T S Q D A R F Y A L S A K F E P F S N K G Q T L V V Q F T V K H E Q N I D C G G G Y V K L F P S G L D Q K D M H G D S E Y N I M F G P D I C G P G T K K V H V I F N Y K G K N V L I N K D I R C K D D E F T H L Y T L I V R P D N T Y E V K I D N S Q V E S G S L E D D W D F L P P K K I K D P D A A K P E D W D E R A K I D D P T D S K P E D W D K P E H I P D P D A K K P E D W D E E M D G E W E P P V I Q N P E Y K G E W K P R Q I D N P D Y K G T W I H P E I D N P E Y S P D A N I Y A Y D S F A V L G L D L W Q V K S G T I F D N F L I T N D E A Y A E E F G N E T W G V T K A A E K Q M K D K Q D E E Q R L K E E E E D K K R K E E E E A E D K E D D D D R D E D E D E E D E K E E D E E E S P G Q A K D E L </pre>
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of PBS, pH 7.4, 50% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background	Calreticulin/CALR protein, a calcium-binding chaperone, orchestrates crucial functions in the endoplasmic reticulum (ER) through the calreticulin/calnexin cycle, promoting the folding, oligomeric assembly, and quality control of glycoproteins. This lectin transiently interacts with nearly all monoglucosylated glycoproteins synthesized in the ER, contributing to their
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proper maturation and function. Beyond its role in glycoprotein processing, CALR is involved in diverse cellular processes. It interacts with the DNA-binding domain of NR3C1, mediating its nuclear export and influencing gene expression regulation. Furthermore, CALR may play a role in oocyte maturation by regulating calcium homeostasis and participating in the cortical reaction during oocyte activation, potentially contributing to the block against polyspermy. CALR forms complexes with various proteins, including GABARAP, PDIA3/ERp57, and TRIM21, highlighting its versatile interactions within cellular pathways. It also engages in intricate protein-protein interactions with PPIB, SPACA9, and CLCC1, underscoring its involvement in diverse cellular processes and protein complexes.

Caution: Product has not been fully validated for medical applications. For research use only.

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