Calreticulin Antibody

Store at -20C

#2891

Cell Signaling
T E C H N O L O G Y®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	55	Rabbit	#P27797	811

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Calreticulin Antibody detects endogenous levels of total calreticulin protein.

Species predicted to react based on 100% sequence homology:

Pig

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Gln65 of human calreticulin. Antibodies are purified by peptide affinity chromatography.

Background

Calcium is a universal signaling molecule involved in many cellular functions, such as cell motility, metabolism, protein modification, protein folding, and apoptosis. Calcium is stored in the endoplasmic reticulum (ER), where it is buffered by calcium binding chaperones such as calnexin and calreticulin, and is released via the IP$_3$ Receptor channel (1). Calreticulin also functions as an ER chaperone that ensures proper folding and quality control of newly synthesized glycoproteins. As such, calreticulin presumably does not alter protein folding but regulates proper timing for efficient folding and subunit assembly. Furthermore, calreticulin retains proteins in non-native conformation within the ER and targets them for degradation (2,3).

Background References

1. Groenendyk, J. et al. (2004) *Mol Cells* 17, 383-9.
2. Nauseef, W.M. et al. (1995) *J Biol Chem* 270, 4741-7.
3. Williams, D.B. (2006) *J Cell Sci* 119, 615-23.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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