

#12238 Store at -20°C

# Calreticulin (D3E6) XP® Rabbit mAb



**Cell Signaling**  
TECHNOLOGY®

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC, FC-FP	H M R	Endogenous	55	Rabbit IgG	#P27797	811

## Product Usage Information

### Application

Western Blotting  
Immunofluorescence (Immunocytochemistry)  
Flow Cytometry (Fixed/Permeabilized)

### Dilution

1:1000  
1:200 - 1:800  
1:400 - 1:1600

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #26704.

## Specificity / Sensitivity

Calreticulin (D3E6) XP® Rabbit mAb recognizes endogenous levels of total calreticulin protein. Under conditions such as immunogenic cell death when calreticulin is presented on the cell surface, this antibody can be used to detect calreticulin on live cells.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human calreticulin protein.

## 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<sub>3</sub> 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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**WB:** Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)  
**FC-FP:** Flow Cytometry (Fixed/Permeabilized)

## 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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