Revision 10

Store at +4C

#77344

Calreticulin (D3E6) XP® Rabbit mAb (Alexa Fluor® 594 Conjugate)

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP	H M R	Endogenous	Rabbit IgG	#P27797	811

Product Usage Information

Application	Dilution
Flow Cytometry (Fixed/Permeabilized)	1:50

Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity/Sensitivity

Calreticulin (D3E6) XP® Rabbit mAb (Alexa Fluor® 594 Conjugate) 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.

Description

This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 594 fluorescent dye and tested in-house for direct flow cytometric analysis in human cells and for immunofluorescent analysis in human and mouse cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated Calreticulin (D3E6) XP® Rabbit mAb #12238.

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).

Applications Key

FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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Limited Uses

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