Calreticulin Antibody

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 IP3 Receptor (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 ensures 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).

Specificity/Sensitivity: Calreticulin Antibody detects endogenous levels of total calreticulin protein.

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.

Applications: Western blot analysis of extracts from HeLa and C6 cells using Calreticulin Antibody.

Recommended Antibody Dilutions: Western Blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

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.

*Species cross-reactivity is determined by western blot.

** Anti-rabbit secondary antibodies must be used to detect this antibody.