

#2433 Store at -20°C

Calnexin Antibody



✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

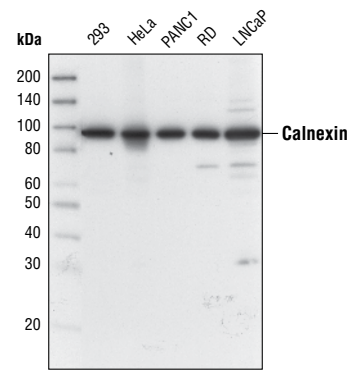
Entrez-Gene ID #821
Swiss-Prot Acc. #P27824

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IHC-P, IF-IC Endogenous	H	90 kDa	Rabbit**

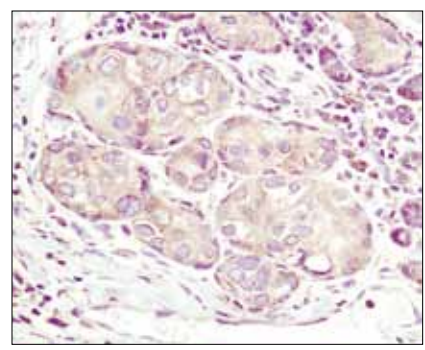
Background: Secretory and transmembrane proteins are synthesized on polysomes and translocate into the endoplasmic reticulum (ER) where they are often modified by the formation of disulfide bonds and amino-linked glycosylation and folding. To help proteins fold properly, the ER contains a pool of molecular chaperons including calnexin. Calnexin was identified as being involved in the assembly of murine class I histocompatibility molecules (1,2). Calnexin is a calcium-binding protein embedded in the ER membrane that retains the newly synthesized glycoproteins inside ER to ensure their proper folding and quality control (3,4,5). A lectin site on calnexin for an oligosaccharide processing intermediate defines its specificity for glycoproteins (5).

Specificity/Sensitivity: Calnexin Antibody detects endogenous levels of total calnexin protein.

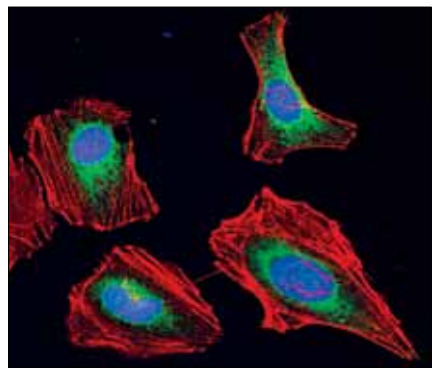
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to a sequence around Ala51 of human calnexin. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell lines using Calnexin Antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using Calnexin Antibody.



Confocal immunofluorescent analysis of HeLa cells using Calnexin Antibody (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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

Recommended Antibody Dilutions:
Western blotting 1:1000
Immunohistochemistry (Paraffin) 1:50†
Unmasking buffer: Citrate
Antibody diluent: SignalStain® Antibody Diluent #8112
Detection reagent: SignalStain® Boost (HRP, Rabbit) #8114
†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.
Immunofluorescence (IF-IC) 1:50

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.

Background References:
(1) Degen, E. and Williams, D.B. (1991) *J. Cell Biol.* 112, 1099–1115.
(2) Ahluwalia, N. et al. (1992) *J. Biol. Chem.* 267, 10914–10918.
(3) Rajagopalan, S. et al. (1994) *Science* 263, 387–390.
(4) Bergeron, J.J. et al. (1994) *Trends Biochem. Sci.* 19, 124–128.
(5) Williams, D.B. (2006) *J. Cell Sci.* 119, 615–623

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.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.