Revision 1

Calnexin Antibody

#2433 Store at -20C

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P, IF-IC	H	Endogenous	90	Rabbit	#P27824	821

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:50 - 1:200
Immunofluorescence (Immunocytochemistry)	1:50

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

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.

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, amino-linked glycosylation and folding. To help proteins fold properly, the ER contains a pool of molecular chaperones including calnexin. Calnexin was first 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 the ER to ensure proper folding and quality control (3-5). The specificity of calnexin for a subset of glycoproteins is defined by a lectin site, which binds an early oligosaccharide intermediate on the folding glycoprotein (5).

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.

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

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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