

Calnexin Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1158a

Product Information

Application	WB, ICC, E
Primary Accession	P27824
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3H4A7
Isotype	IgG2b
Calculated MW	67568
Description	This gene encodes a member of the calnexin family of molecular chaperones. The encoded protein is a calcium-binding, endoplasmic reticulum (ER)-associated protein that interacts transiently with newly synthesized N-linked glycoproteins, facilitating protein folding and assembly. It may also play a central role in the quality control of protein folding by retaining incorrectly folded protein subunits within the ER for degradation. Alternatively spliced transcript variants encoding the same protein have been described.
Immunogen	Synthetic peptide corresponding to aa (CEAAEERPWLWVYILTVAL) of human Calnexin, conjugated to KLH.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	821
Other Names	Calnexin, IP90, Major histocompatibility complex class I antigen-binding protein p88, p90, CANX
Dilution	WB~~1/500 - 1/2000 ICC~~N/A E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Calnexin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CANX
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Function

Calcium-binding protein that interacts with newly synthesized monoglucosylated glycoproteins in the endoplasmic reticulum. It may act in assisting protein assembly and/or in the retention within the ER of unassembled protein subunits. It seems to play a major role in the quality control apparatus of the ER by the retention of incorrectly folded proteins. Associated with partial T-cell antigen receptor complexes that escape the ER of immature thymocytes, it may function as a signaling complex regulating thymocyte maturation. Additionally it may play a role in receptor-mediated endocytosis at the synapse.

Cellular Location

Endoplasmic reticulum membrane; Single-pass type I membrane protein. Mitochondrion membrane {ECO:0000250|UniProtKB:P24643}; Single-pass type I membrane protein. Melanosome membrane; Single-pass type I membrane protein. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:12643545, PubMed:17081065). The palmitoylated form preferentially localizes to the perinuclear rough ER (PubMed:22314232) Localizes to endoplasmic reticulum mitochondria-associated membrane (MAMs) that connect the endoplasmic reticulum and the mitochondria (By similarity). {ECO:0000250|UniProtKB:P24643, ECO:0000269|PubMed:12643545, ECO:0000269|PubMed:17081065, ECO:0000269|PubMed:22314232}

References

1. Science. 2003 Feb 28;299(5611):1394-7. 2. Exp Cell Res. 2004 Mar 10;294(1):244-53. 3. Science. 2004 Apr 23;304(5670):600-2.

Images

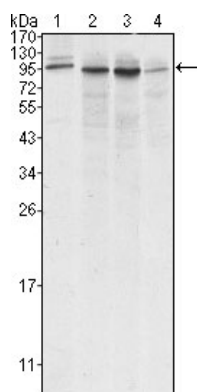


Figure 1: Western blot analysis using Calnexin mouse mAb against A431 (1), HeLa (2), MCF-7 (3) and A549 (4) cell lysate.

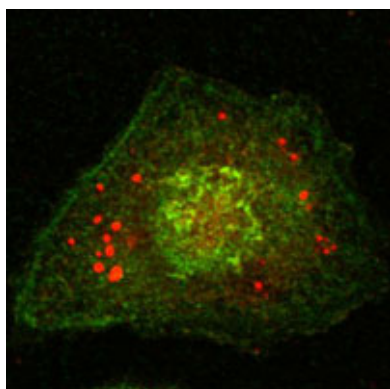


Figure 2: Confocal immunofluorescence analysis of HeLa cells using Calnexin mouse mAb (green).