10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Calnexin (RABBIT) Antibody
Calnexin Antibody
Catalog # ASR5668

Specification

Anti-Calnexin (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Rat, Human, Mouse, Chicken**
Clonality	**Polyclonal**
Application	**WB, IHC, E, I, LCI**
Application Note	**Anti-Calnexin antibody is useful for ELISA and Western Blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~67.7 kDa corresponding to the appropriate cell lysate or extract.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Calnexin affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the C-terminus of human Calnexin.**
Stabilizer	**50% (v/v) Glycerol**

Anti-Calnexin (RABBIT) Antibody - Additional Information

Gene ID 821

Other Names
821

Purity
Anti-Calnexin was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody is specific towards calnexin. A BLAST analysis was used to suggest cross-reactivity with Human, Mouse, Rat, Primate and Chicken based on 100% sequence homology. Cross-reactivity with calnexin from other sources has not been determined.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Calnexin (RABBIT) Antibody - Protein Information

Name CANX

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}

Anti-Calnexin (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Calnexin (RABBIT) Antibody - Images

Anti-Calnexin (RABBIT) Antibody - Background

Calnexin, also referred to as IP90, p88 and p90, is an ~90 kDa integral membrane protein of the endoplasmic reticulum (ER). Many resident ER proteins act as molecular chaperones and participate in the proper folding of polypeptides and their assembly into multisubunit proteins. Studies indicate that calnexin associates with the major histocompatibility complex (MHC) class I heavy chains, partial complexes of the T cell receptor and B cell membrane immunoglobulin, but not with completed receptor complexes. It has been shown that calnexin is a chaperone that retains incompletely or improperly folded proteins in the ER. The sequence Lys-Asp-Glu-Leu (KDEL) or a closely related sequence, is present at the carboxy-terminus of soluble ER resident proteins such as GRP 78 and GRP 94 and protein disulfide isomerase. Integral membrane ER resident proteins, like calnexin, often lack this KDEL sequence but contain positively charged cytosolic residues that ensure ER retention. Calnexin contains a large ER luminal domain (461 amino acids), a transmembrane segment (22 amino acids), and a cytoplasmic tail (89 amino acids). These features distinguish calnexin from soluble ER chaperones that cannot interact with the transmembrane and

cytosolic domains of integral membrane proteins. The amino acid sequence of calnexin is highly conserved among species, and shares regions of high sequence homology with calreticulin. Anti-Calnexin antibody is ideal for researchers interested in ER Markers, Neuroscience, and Vision research.