

Product datasheet for TA336279

OriGene Technologies, Inc.

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Calnexin (CANX) Rabbit Polyclonal Antibody

Product data:

Product Type: Primary Antibodies

Applications: FC, ICC/IF, IHC, IP, Simple Western, WB

Recommended Dilution: Flow Cytometry, Western Blot: 1:1000, Immunohistochemistry-Paraffin: 1:100, Simple

Western: 1:50, Immunohistochemistry: 1:100, Immunocytochemistry/ Immunofluorescence:

1:100, Immunoprecipitation: 1:100

Reactivity: Human, Mouse, Rat, Hamster

Host: Rabbit

Clonality: Polyclonal

Immunogen: A synthetic peptide made to a C-terminal portion of the rat Calnexin protein (between

residues 550-591) [UniProt P35565]

Formulation: PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid

freeze-thaw cycles.

Concentration: lot specific

Purification: Immunogen affinity purified

Conjugation: Unconjugated

Storage: Store at -20°C as received.

Stability: Stable for 12 months from date of receipt.

Predicted Protein Size: 97 kDa

Gene Name: calnexin

Database Link: NP 001737

Database Lilik. <u>INP 001757</u>

Entrez Gene 12330 MouseEntrez Gene 29144 RatEntrez Gene 821 Human

P27824





Background:

Calnexin is a calcium-binding protein which interacts with newly synthesized glycoproteins in ER for facilitating protein assembly and/or the retention within ER of unassembled protein subunits as well as incorrectly folded proteins thereby playing a key role in ER's quality control apparatus. The specificity of calnexin for glycoproteins is defined by a lectin site, which binds an early oligosaccharide intermediate on the folding glycoprotein. When associated with partial T-cell antigen receptor complexes which escape immature thymocytes's ER, calnexin regulates thymocyte maturation process and is also implicated in receptor-mediated endocytosis at synapses. MAPK3/ERK1 phosphorylates calnexin at Ser-565 leading to increased calnexin-ribosomal association and DHHC6 mediated calnexin palmitoylation leads to its preferential localization to perinuclear rough ER. Palmitoylation also facilitate calnexin association with RTC/ribosome-translocon complex that is essential to efficient folding of glycosylated proteins.

Synonyms: CNX; IP90; P90

Note: This Calnexin antibody is useful for Immunocytochemistry/Immunofluorescence,

Immunoprecipitation, Western Blot, and Immunohistochemistry-paraffin embedded sections. In ICC/IF, endoplasmic reticulum staining was observed in HeLa cells. In Western Blot, a band is seen ~ 90 kDa representing Calnexin. In IHC-P, staining was observed in the endoplasmic reticulum of mouse bladder tissue. Prior to immunostaining paraffin tissues, antigen retrieval

with sodium citrate buffer (pH 6.0) is recommended.

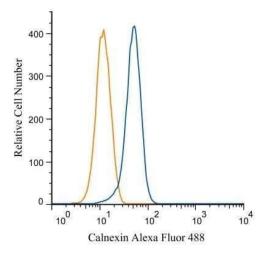
Protein Families: Druggable Genome, Transmembrane
Protein Pathways: Antigen processing and presentation

Product images:

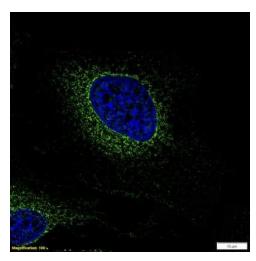


Simple Western: Calnexin Antibody TA336279 - Image shows a specific band for Calnexin in 0.1 mg/mL of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.

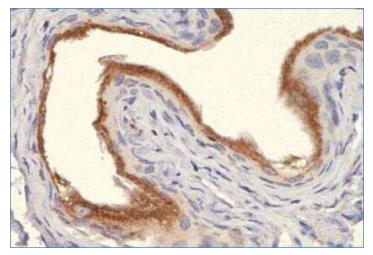




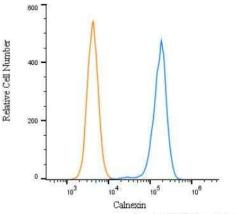
Flow Cytometry: Calnexin Antibody TA336279 - Analysis of Alexa Fluor (R) 488 conjugate of TA336279. An intracellular stain was performed on Jurkat cells with Calnexin antibody TA336279AF488 (blue) and a matched isotype control NBP2-24893AF488 (orange).



Immunocytochemistry/Immunofluorescence: Calnexin Antibody TA336279 - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with (TA336279) at 1 ug/ml overnight at 4C and detected with an anti-rabbit DyLight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.

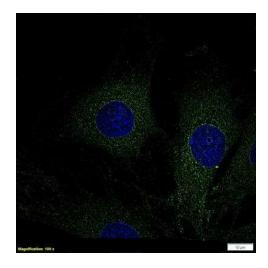


Immunohistochemistry: Calnexin Antibody TA336279 - Analysis of Calnexin in mouse bladder using DAB with hematoxylin counterstain.

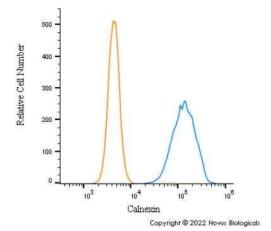


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Flow Cytometry: Calnexin Antibody TA336279 - An intracellular stain was performed on Daudi cells with Calnexin Antibody TA336279 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).

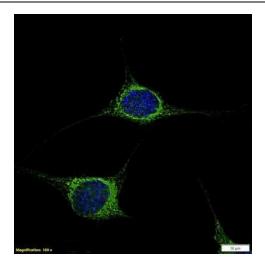


Immunocytochemistry/Immunofluorescence: Calnexin Antibody TA336279 - Rat FR cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with (TA336279) at 1 ug/ml overnight at 4C and detected with an anti-rabbit DyLight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.

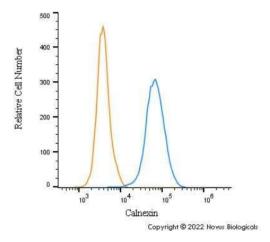


Flow Cytometry: Calnexin Antibody TA336279 - An intracellular stain was performed on NIH3T3 cells with Calnexin Antibody TA336279 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).

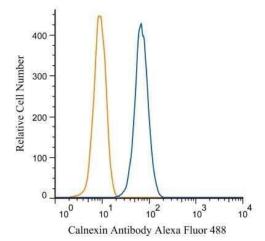




Immunocytochemistry/Immunofluorescence: Calnexin Antibody TA336279 - NIH3T3 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with (TA336279) at 1 ug/ml overnight at 4C and detected with an anti-rabbit DyLight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.

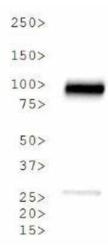


Flow Cytometry: Calnexin Antibody TA336279 - An intracellular stain was performed on rat FR cells with Calnexin Antibody TA336279 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



Flow Cytometry: Calnexin Antibody TA336279 - An intracellular stain was performed on HeLa cells with Calnexin antibody TA336279AF488 (blue) and a matched isotype control NBP2-24893AF488 (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488. Image using the Alexa Fluor 488 form of this antibody.





Western Blot: Calnexin Antibody TA336279 -Analysis of Calnexin in HeLa whole cell lysate.