**BACKGROUND**

Calnexin and Calregulin (also called calreticulin) are calcium-binding proteins that are localized to the endoplasmic reticulum. Calnexin to the membrane and Calregulin to the lumen. Calnexin is a type I membrane protein that interacts with newly synthesized glycoproteins in the endoplasmic reticulum. It may play a role in assisting with protein assembly and in retaining unassembled protein subunits in the endoplasmic reticulum. Calregulin has both low- and high-affinity calcium-binding sites. Neither Calnexin nor Calregulin contain the calcium-binding "E-F hand" motif found in calmodulins. Calnexin and Calregulin are important for the maturation of glycoproteins in the endoplasmic reticulum and appear to bind many of the same proteins.

**CHROMOSOMAL LOCATION**

Genetic locus: CANX (human) mapping to 5q35.3; Canx (mouse) mapping to 11B1.3.

**SOURCE**

Calnexin (6D195) is a mouse monoclonal antibody raised against human hepatoma cell line.

**PRODUCT**

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Calnexin (6D195) is recommended for detection of Calnexin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Calnexin siRNA (h): sc-29233, Calnexin siRNA (m): sc-29884, Calnexin shRNA Plasmid (m): sc-29884-SH, Calnexin shRNA (h) Lentiviral Particles: sc-29233-V and Calnexin shRNA (m) Lentiviral Particles: sc-29884-V.

Molecular Weight of Calnexin: 90 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGx BP-HRP: sc-516102 or m-IgGx BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.
2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
3) Immunofluorescence: use m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

![Western blot analysis of Calnexin expression in HeLa (A), A-431 (B), K-562 (C), Jurkat (D), MCF7 (E) and JAR (F) whole cell lysates.](image)

Calnexin (6D195): sc-70481. Western blot analysis of Calnexin expression in HeLa (A), A-431 (B), K-562 (C), Jurkat (D), MCF7 (E) and JAR (F) whole cell lysates.

**SELECT PRODUCT CITATIONS**

3. Windhorst, S., et al. 2013. Tumour cells can employ extracellular Ins(1,2,3,4,5,6)P(6) and multiple inositol-polyphosphate phosphatase 1 (MINPP1) dephosphorylation to improve their proliferation. Biochem. J. 450: 115-125.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

See Calnexin (AF18): sc-23954 for Calnexin antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.