**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 contains 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 11 B1.3.

**SOURCE**

Calnexin (AF18) 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. Calnexin (AF18) is available conjugated to agarose (sc-23954 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23954 HRP), 200 µg/ml, for WB, HCP and ELISA; to either phycoerythrin (sc-23954 PE), fluorescein (sc-23954 FITC), Alexa Fluor® 488 (sc-23954 AF488), Alexa Fluor® 546 (sc-23954 AF546), Alexa Fluor® 594 (sc-23954 AF594) or Alexa Fluor® 647 (sc-23954 AF647), 200 µg/ml, for WB (RGB), IF, IFM and FCM; and to either Alexa Fluor® 680 (sc-23954 AF680) or Alexa Fluor® 790 (sc-23954 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLIANCES**

Calnexin (AF18) 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (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 (h): sc-29233-SH, 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: A549 cell lysate: sc-2413, MCF7 whole cell lysate: sc-2206 or MDA-MB-231 cell lysate: sc-2232.

**STORAGE**

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

**DATA**

Calnexin (AF18): sc-23954. Western blot analysis of Calnexin expression in A549 (A), MCF7 (B), U-2 OS (C), U-2 OS (D), MDA-MB-231 (E) and NCI-H1299 (F) whole cell lysates.

A

B

C

D

E

F

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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