Calregulin (A-9): sc-166837

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: CALR (human) mapping to 19p13.2; Calr (mouse) mapping to 8C3.

SOURCE

Calregulin (A-9) is a mouse monoclonal antibody raised against amino acids 248-417 of Calregulin of human origin.

PRODUCT

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

Calregulin (A-9) is available conjugated to agarose (sc-166837 AC), 500 µg/ml, for WB, HRP (sc-166837 HRP), 200 µg/ml, for WB, HiCIP and ELISA; to either phycocyanin (sc-166837 PE), fluorescein (sc-166837 FITC), Alexa Fluor® 488 (sc-166837 AF488), Alexa Fluor® 546 (sc-166837 AF546), Alexa Fluor® 594 (sc-166837 AF594) or Alexa Fluor® 647 (sc-166837 AF647), 200 µg/ml, for WB (RGB), IF, HiCIP and FCM; and to either Alexa Fluor® 680 (sc-166837 AF680) or Alexa Fluor® 790 (sc-166837 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Calregulin (A-9) is recommended for detection of Calregulin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of Calregulin: 55 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HL-60 whole cell lysate: sc-2209 or A-431 whole cell lysate: sc-2201.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA

Calregulin (A-9): sc-166837. Western blot analysis of Calregulin expression in MCF7 (A), HL-60 (B), A-431 (C) and Jurkat (D) whole cell lysates.

SELECT PRODUCT CITATIONS


STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.