

Calmegin (N-16): sc-49899

BACKGROUND

Calmegin, belonging to the calreticulin family, is expressed in testis as an endoplasmic reticulum membrane protein, where it acts as a chaperone protein and plays a role in spermatogenesis. Calmegin is a single-pass type I membrane protein that is transcriptionally regulated in coordination by CpG methyltransferase and histone deacetylase (HDAC). First expressed in meiotic prophase of spermatocytes, Calmegin facilitates sperm-egg zona pellicula binding through association with sperm membrane proteins (fertilin α and β). A loss in Calmegin results in male sterility. However, if the zona pellicula is partially dissected and fertilized *in vitro*, the egg will develop normally.

CHROMOSOMAL LOCATION

Genetic locus: CLGN (human) mapping to 4q31.1; Clgn (mouse) mapping to 8 C2.

SOURCE

Calmegin (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Calmegin of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49899 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Calmegin (N-16) is recommended for detection of Calmegin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Calmegin (N-16) is also recommended for detection of Calmegin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Calmegin siRNA (h): sc-60316, Calmegin siRNA (m): sc-60317, Calmegin shRNA Plasmid (h): sc-60316-SH, Calmegin shRNA Plasmid (m): sc-60317-SH, Calmegin shRNA (h) Lentiviral Particles: sc-60316-V and Calmegin shRNA (m) Lentiviral Particles: sc-60317-V.

Molecular Weight (predicted) of Calmegin: 70 kDa.

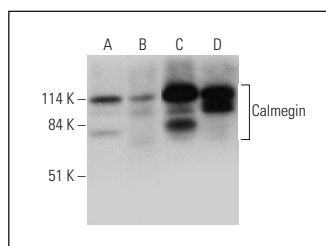
Molecular Weight (observed) of Calmegin: 69 kDa.

Positive Controls: human heart extract: sc-363763, U-251-MG whole cell lysate: sc-364176 or human testis extract: sc-363781.

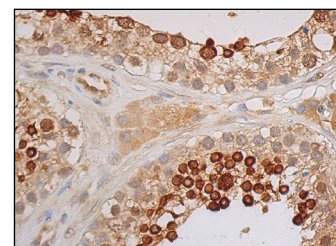
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Calmegin (N-16): sc-49899. Western blot analysis of Calmegin expression in U-251-MG whole cell lysate (A) and mouse testis (B), human testis (C) and human heart (D) tissue extracts.



Calmegin (N-16): sc-49899. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and nuclear envelope staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells.

RESEARCH USE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Calmegin (B-11): sc-515251**, our highly recommended monoclonal alternative to Calmegin (N-16).