

calsequestrin 1 (C-15): sc-16573

BACKGROUND

Calsequestrin (CS, also known as CSQ) is the major calcium-binding protein of cardiac and skeletal muscle whose function is to sequester calcium in the lumen of the sarcoplasmic reticulum (SR). In mammals, there are two forms of this protein, calsequestrin 1 and calsequestrin 2, which encode fast-twitch skeletal muscle and cardiac calsequestrin, respectively. Calsequestrin 1, also known as Calmitin, is located in the terminal cisternae luminal spaces of the SR of fast skeletal muscle cells. Calsequestrin 2 is present in terminal cisternae luminal spaces of the SR of both cardiac and slow skeletal muscle cells. In addition, calsequestrin regulates the ryanodine receptor signaling (RyR) through Triadin and Junctin.

CHROMOSOMAL LOCATION

Genetic locus: CASQ1 (human) mapping to 1q23.2; Casq1 (mouse) mapping to 1 H3.

SOURCE

calsequestrin 1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of calsequestrin 1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-16573 P, (100 µg 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

calsequestrin 1 (C-15) is recommended for detection of calsequestrin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

calsequestrin 1 (C-15) is also recommended for detection of calsequestrin 1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for calsequestrin 1 siRNA (h): sc-43275, calsequestrin 1 siRNA (m): sc-43276, calsequestrin 1 shRNA Plasmid (h): sc-43275-SH, calsequestrin 1 shRNA Plasmid (m): sc-43276-SH, calsequestrin 1 shRNA (h) Lentiviral Particles: sc-43275-V and calsequestrin 1 shRNA (m) Lentiviral Particles: sc-43276-V.

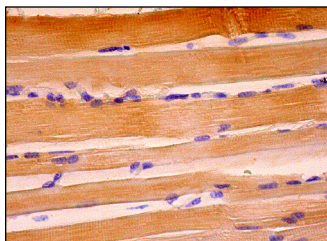
Molecular Weight of calsequestrin 1: 63 kDa.

Positive Controls: mouse heart extract: sc-2254, rat skeletal muscle extract: sc-364810 or rat heart extract: sc-2393.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



calsequestrin 1 (C-15): sc-16573. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

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 **calsequestrin 1 (D-10): sc-137080** or **calsequestrin 1 (VIII12): sc-53012**, our highly recommended monoclonal alternatives to calsequestrin 1 (C-15).