

CALHM1 (G-15): sc-164315

BACKGROUND

CALHM1 (calcium homeostasis modulator 1), also known as FAM26C, is a 346 amino acid multi-pass endoplasmic reticulum membrane protein that belongs to the FAM26 family. CALHM1 co-localizes with GRP 78 to the endoplasmic reticulum. Predominantly expressed in adult brain, CALHM1 may be a pore-forming ion channel that controls cytosolic Ca²⁺ permeability and cytosolic Ca²⁺ concentration in the cell. It is suggested that CALHM1 regulates amyloid precursor protein proteolysis and aggregated amyloid- β peptides levels in a Ca²⁺ dependent manner. CALHM1 homomultimerizes and shares strong sequence similarities with the selectivity filter of the NMDA receptor, which generates a large Ca²⁺ conductance across the plasma membrane. CALHM1 may be a potential factor involved in the pathogenesis of Alzheimer's disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CALHM1 (human) mapping to 10q24.33; Calhm1 (mouse) mapping to 19 C3.

SOURCE

CALHM1 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CALHM1 of human origin.

STORAGE

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

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-164315 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CALHM1 (G-15) is recommended for detection of CALHM1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other FAM26 family members.

CALHM1 (G-15) is also recommended for detection of CALHM1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CALHM1 siRNA (h): sc-90815, CALHM1 siRNA (m): sc-143737, CALHM1 shRNA Plasmid (h): sc-90815-SH, CALHM1 shRNA Plasmid (m): sc-143737-SH, CALHM1 shRNA (h) Lentiviral Particles: sc-90815-V and CALHM1 shRNA (m) Lentiviral Particles: sc-143737-V.

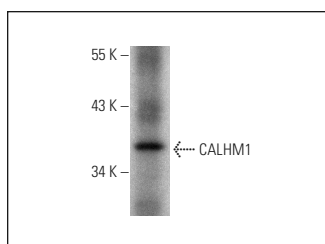
Molecular Weight of CALHM1: 38 kDa.

Positive Controls: 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.

DATA



CALHM1 (G-15): sc-164315. Western blot analysis of CALHM1 expression in human testis tissue extract.

RESEARCH USE

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