

Calumenin (F-8): sc-271357

BACKGROUND

Calumenin is a 315 amino acid Ca^{2+} -binding member of the CREC, EF-hand protein family. Calumenin is a secreted protein that contains six Ca^{2+} -binding (EF-hand) motifs and is expressed in the lumen of the endoplasmic reticulum (ER) and Golgi apparatus. In the presence of Ca^{2+} , Calumenin interacts with serum Amyloid P component (SAP) and, together, they may play a role in the immunological defense system and participate in amyloidosis, the pathological formation of amyloid deposits in different types of tissues. Calumenin has an inhibitory effect on the vitamin K-dependent γ -carboxylation system which converts vitamin K-dependent proteins to Gla-containing proteins. Calumenin may also be involved in the pathophysiology of thrombosis and/or wound healing by acting in an autocrine or paracrine manner.

CHROMOSOMAL LOCATION

Genetic locus: CALU (human) mapping to 7q32.1; Calu (mouse) mapping to 6 A3.3.

SOURCE

Calumenin (F-8) is a mouse monoclonal antibody raised against amino acids 89-128 mapping within an internal region of Calumenin of human origin.

PRODUCT

Each vial contains 200 μg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Calumenin (F-8) is available conjugated to agarose (sc-271357 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-271357 HRP), 200 μg /ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271357 PE), fluorescein (sc-271357 FITC), Alexa Fluor® 488 (sc-271357 AF488), Alexa Fluor® 546 (sc-271357 AF546), Alexa Fluor® 594 (sc-271357 AF594) or Alexa Fluor® 647 (sc-271357 AF647), 200 μg /ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271357 AF680) or Alexa Fluor® 790 (sc-271357 AF790), 200 μg /ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Calumenin (F-8) is recommended for detection of Calumenin 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).

Suitable for use as control antibody for Calumenin siRNA (h): sc-60320, Calumenin siRNA (m): sc-60321, Calumenin shRNA Plasmid (h): sc-60320-SH, Calumenin shRNA Plasmid (m): sc-60321-SH, Calumenin shRNA (h) Lentiviral Particles: sc-60320-V and Calumenin shRNA (m) Lentiviral Particles: sc-60321-V.

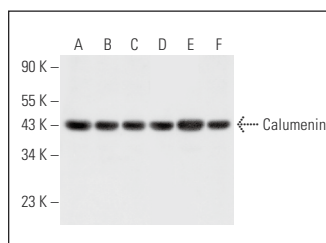
Molecular Weight of Calumenin: 52/57 kDa.

Positive Controls: JAR cell lysate: sc-2276, K-562 whole cell lysate: sc-2203 or HEK293 whole cell lysate: sc-45136.

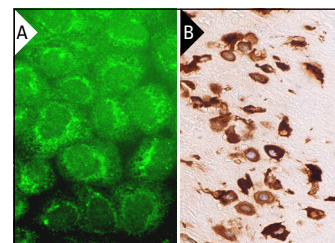
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ 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 κ BP-FITC: sc-516140 or m-IgG κ 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 κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Calumenin (F-8): sc-271357. Western blot analysis of Calumenin expression in Jurkat (A), K-562 (B), HEK293 (C), JAR (D), A549 (E) and SW480 (F) whole cell lysates.



Calumenin (F-8): sc-271357. Immunofluorescence staining of formalin-fixed A-431 cells showing cytoplasmic and cell surface localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of decidual cells (B).

SELECT PRODUCT CITATIONS

- Saha, J.M., et al. 2018. Proteomic profiling of a primary CD4⁺ T cell model of HIV-1 latency identifies proteins whose differential expression correlates with reactivation of latent HIV-1. *AIDS Res. Hum. Retroviruses* 34: 103-110.
- Yan, R., et al. 2022. SURF4-induced tubular ERGIC selectively expedites ER-to-Golgi transport. *Dev. Cell* 57: 512-525.e8.
- Saha, B., et al. 2022. Interactomic analysis reveals a homeostatic role for the HIV restriction factor TRIM5 α in mitophagy. *Cell Rep.* 39: 110797.

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.