SANTA CRUZ BIOTECHNOLOGY, INC.

Calgranulin A (C-19): sc-8112

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The family of EF-hand type Ca^{2+}-binding proteins includes Calbindin (previously designated vitamin D-dependent Ca^{2+}-binding protein), S-100 α and β, Calgranulins A (also designated MRP8), B (also designated MRP14) and C (S-100 like proteins) and the parvalbumin family members, including parvalbumin α and parvalbumin β (also designated oncomodulin). Calbindin, S-100 proteins and parvalbumin proteins are each expressed in neural tissues. In addition, S-100 α and β are present in a variety of other tissues, and Calbindin is present in intestine and kidney. Parvalbumin α is also found in fast-contracting/relaxing skeletal muscle fibers and parvalbumin β is found in many tumor tissues as well as in the organ of corti. Calbindin, S-100 proteins and parvalbulmins have all been detected in leydig cells and the testis. These proteins are thought to play a role in hormone production and spermatogenesis. Calgranulin is expressed in macrophages and epithelial cells.

CHROMOSOMAL LOCATION

Genetic locus: S100A8 (human) mapping to 1q21.3; S100a8 (mouse) mapping to 3 F1.

SOURCE

Calgranulin A (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Calgranulin A of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8112 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Calgranulin A (C-19) is recommended for detection of Calgranulin A of mouse and human origin by Western Blotting (starting dilution 1:200, 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 Calgranulin A siRNA (h): sc-43342, Calgranulin A siRNA (m): sc-43343, Calgranulin A shRNA Plasmid (h): sc-43342-SH, Calgranulin A shRNA Plasmid (m): sc-43343-SH, Calgranulin A shRNA (h) Lentiviral Particles: sc-43342-V and Calgranulin A shRNA (m) Lentiviral Particles: sc-43343-V.

Molecular Weight of Calgranulin A: 11 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HL-60 + DMSO cell lysate: sc-24703 or mouse skin extract: sc-364251.

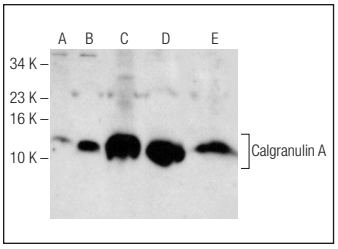
STORAGE

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

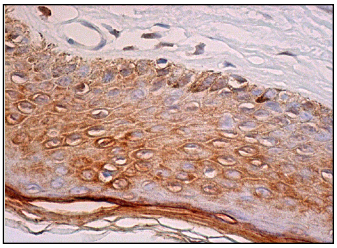
RESEARCH USE

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

DATA



Calgranulin A (C-19): sc-8112. Western blot analysis of Calgranulin A expression in HL-60 (**A**), DMSO treated HL-60 (**B**), human PBL (**C**) and mouse PBL (**D**) whole cell lysates and mouse skin tissue extract (**E**).



Calgranulin A (C-19): sc-8112. Immunoperoxidase staining of formalin fixed, paraffin-embedded human vulva tissue showing cytoplasmic staining of epidermal cells.

SELECT PRODUCT CITATIONS

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3. Zenz, R., et al. 2005. Psoriasis-like skin disease and arthritis caused by inducible epidermal deletion of Jun proteins. Nature 437: 369-375.
4. Cross, S.S., et al. 2005. Expression of S100 proteins in normal human tissues and common cancers using tissue microarrays: S100A6, S100A8, S100A9 and S100A11 are all overexpressed in common cancers. Histopathology 46: 256-269.
5. Paclet, M.H., et al. 2007. Regulation of phagocyte NADPH oxidase activity: identification of two cytochrome b558 activation states. FASEB J. 21: 1244-1255.
6. Caldwell, R.L., et al. 2008. Tissue profiling MALDI mass spectrometry reveals prominent calcium-binding proteins in the proteome of regenerative MRL mouse wounds. Wound Repair Regen. 16: 442-449.
7. Park, C.C., et al. 2009. Comparison of the expression profile of JunB, c-Jun, and S100A8 (Calgranulin A) in psoriasis vulgaris and guttate psoriasis. Ann. Dermatol. 21: 35-38.
8. Braun, M., et al. 2009. Down-regulation of microfilamental network-associated proteins in leukocytes of breast cancer patients: potential application to predictive diagnosis. Cancer Genomics Proteomics 6: 31-40.