

Calgranulin A (FL-83): sc-20174

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 parvalbumins 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.

SOURCE

Calgranulin A (FL-83) is a rabbit polyclonal antibody raised against amino acids 1-83 representing full length Calgranulin A 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.

APPLICATIONS

Calgranulin A (FL-83) is recommended for detection of Calgranulin A of 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 shRNA Plasmid (h): sc-43342-SH and Calgranulin A shRNA (h) Lentiviral Particles: sc-43342-V.

Molecular Weight of Calgranulin A: 11 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HL-60 whole cell lysate: sc-2209 or HL-60 + DMSO cell lysate: sc-24703.

STORAGE

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

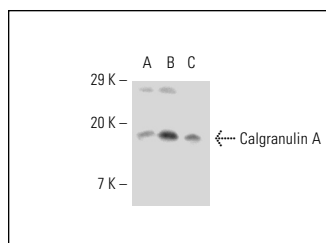
PROTOCOLS

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

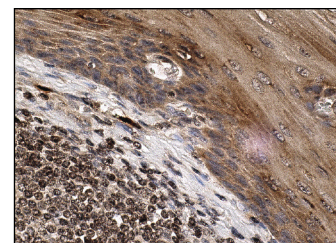
RESEARCH USE

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

DATA



Calgranulin A (FL-83): sc-20174. Western blot analysis of Calgranulin A expression in untreated (A), DMSO treated HL-60 (B) and A-431 (C) whole cell lysates.



Calgranulin A (FL-83): sc-20174. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells and nuclear staining of lymphoid cells.

SELECT PRODUCT CITATIONS

- Jechlinger, M., et al. 2003. Expression profiling of epithelial plasticity in tumor progression. *Oncogene* 22: 7155-7169.
- Hermani, A., et al. 2005. Calcium-binding proteins S100A8 and S100A9 as novel diagnostic markers in human prostate cancer. *Clin. Cancer Res.* 11: 5146-5152.
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- Nukui, T., et al. 2008. S100A8/A9, a key mediator for positive feedback growth stimulation of normal human keratinocytes. *J. Cell. Biochem.* 104: 453-464.
- Momohara, C., et al. 2009. Mechanism underlying the low prevalence of pediatric calcium oxalate urolithiasis. *J. Urol.* 182: 1201-1209.
- Yao, D., et al. 2010. Hyperglycemia-induced reactive oxygen species increase expression of the receptor for advanced glycation end products (RAGE) and RAGE ligands. *Diabetes* 59: 249-255.
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- Aochi, S., et al. 2011. Markedly elevated serum levels of calcium-binding S100A8/A9 proteins in psoriatic arthritis are due to activated monocytes/macrophages. *J. Am. Acad. Dermatol.* 64: 879-887.



Try **Calgranulin A (C-10): sc-48352** or **Calgranulin A (MRP8 2C5/4): sc-53184**, our highly recommended monoclonal alternatives to Calgranulin A (FL-83). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Calgranulin A (C-10): sc-48352**.