

Calgranulin B (M-19): sc-8115

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.

REFERENCES

1. van Heyningen, et al. 1985. Tissue localization and chromosomal assignment of a serum protein that tracks the cystic fibrosis gene. *Nature* 315: 513-515.
2. Hayward, C., et al. 1986. Monoclonal antibodies to cystic fibrosis antigen. *J. Immunol. Methods* 91: 117-122.

CHROMOSOMAL LOCATION

Genetic locus: S100a9 (mouse) mapping to 3 F1.

SOURCE

Calgranulin B (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Calgranulin B of mouse 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-8115 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Calgranulin B (M-19) is recommended for detection of Calgranulin B of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Calgranulin B siRNA (m): sc-43345, Calgranulin B shRNA Plasmid (m): sc-43345-SH and Calgranulin B shRNA (m) Lentiviral Particles: sc-43345-V.

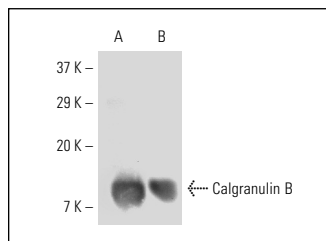
Molecular Weight of Calgranulin B: 14 kDa.

Positive Controls: rat peripheral blood extract or mouse spleen extract: sc-2391.

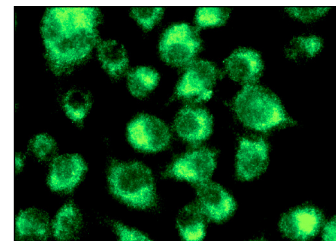
STORAGE

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

DATA



Calgranulin B (M-19): sc-8115. Western blot analysis of Calgranulin B expression in rat peripheral blood (A) and mouse spleen (B) tissue extracts.



Calgranulin B (M-19): sc-8115. Immunofluorescence staining of methanol-fixed I-11.15 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Stygar, D., et al. 2007. Studies on estrogen receptor (ER) α and β responses on gene regulation in peripheral blood leukocytes *in vivo* using selective ER agonists. *J. Endocrinol.* 194: 101-119.
2. Zhang, P., et al. 2007. Alcohol intoxication inhibits pulmonary S100A8 and S100A9 expression in rats challenged with intratracheal lipopolysaccharide. *Alcohol. Clin. Exp. Res.* 31: 113-121.
3. Mitchell, K., et al. 2008. Localization of S100A8 and S100A9 expressing neutrophils to spinal cord during peripheral tissue inflammation. *Pain* 134: 216-231.
4. Gebhardt, C., et al. 2008. RAGE signaling sustains inflammation and promotes tumor development. *J. Exp. Med.* 205: 275-285.
5. Schonthaler, H.B., et al. 2009. Systemic anti-VEGF treatment strongly reduces skin inflammation in a mouse model of psoriasis. *Proc. Natl. Acad. Sci. USA* 106: 21264-21269.
6. Schonthaler, H.B., et al. 2013. S100A8-S100A9 protein complex mediates psoriasis by regulating the expression of complement factor C3. *Immunity* 39: 1171-1181.
7. Thomsen, M.K., et al. 2015. Loss of JUNB/AP-1 promotes invasive prostate cancer. *Cell Death Differ.* 22: 574-582.

RESEARCH USE

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

MONOS
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Try **Calgranulin B (47-8D3): sc-58706**, our highly recommended monoclonal alternative to Calgranulin B (M-19).