SANTA CRUZ BIOTECHNO

Calgranulin A (CF145): sc-53033

BACKGROUND

The family of EF-hand type Ca^{2+}-binding proteins includes Calbindin (previously designated vitamin D-dependent Ca^{2+}-binding protein), S-100α 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-100α 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 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 (CF145) is a mouse monoclonal antibody raised against purified granulocyte antigen of human origin.

PRODUCT

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

Calgranulin A (CF145) is available conjugated to either phycoerythrin (sc-53033 PE) or fluorescein (sc-53033 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

STORAGE

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

APPLICATIONS

Calgranulin A (CF145) 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 flow cytometry (1 µg per 1 x 10^6 cells).

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.

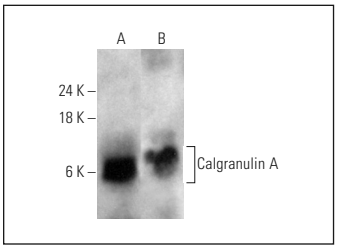
Molecular Weight of Calgranulin A: 11 kDa.

Positive Controls: human PBL whole cell lysate or human tongue extract: sc-516713.

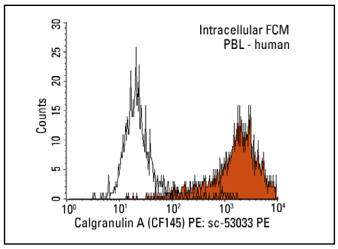
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Calgranulin A (CF145): sc-53033. Western blot analysis of Calgranulin A expression in human PBL whole cell lysate (**A**) and human tongue tissue extract (**B**).



Calgranulin A (CF145): sc-53033. Intracellular FCM analysis of of human peripheral blood leukocytes stained with Calgranulin A (CF145), followed by PE-conjugated goat anti-mouse IgG_{2b}: sc-3766. Black line histogram represents the isotype control, normal mouse IgG_{2b}: sc-3879.

SELECT PRODUCT CITATIONS

1. Schenten, V., et al. 2018. Secretion of the phosphorylated form of S100A9 from neutrophils is essential for the proinflammatory functions of extracellular S100A8/A9. Front. Immunol. 9: 447.

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.

CONJUGATES

See **Calgranulin A (C-10): sc-48352** for Calgranulin A antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.