SANTA CRUZ BIOTECHNOLOGY, INC.

CD63 (MX-49.129.5): sc-5275

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The tetraspanins are integral membrane proteins expressed on cell surface and granular membranes of hematopoietic cells and are components of multi-molecular complexes with specific integrins. The tetraspanin CD63 (also known as LAMP-3, melanoma-associated antigen ME491, TSPAN30, MLA1 and OMA81H) is a lysosomal membrane glycoprotein that translocates to the plasma membrane after platelet activation. CD63 is expressed on activated platelets, monocytes and macrophages, and is weakly expressed on granulocytes, T cell and B cells. It is located on the basophilic granule membranes and on the plasma membranes of lymphocytes and granulocytes. CD63 is a member of the TM4 superfamily of leukocyte glycoproteins that includes CD9, CD37 and CD53, which contain four transmembrane regions. CD63 may play a role in phagocytic and intracellular lysosome-phagosome fusion events. CD63 deficiency is associated with Hermansky-Pudlak syndrome.

REFERENCES

1. Azorsa, D.O., et al. 1991. CD63/Pltgp40: a platelet activation antigen identical to the stage-specific, melanoma-associated antigen ME491. Blood 78: 280-284.
2. Horejsi, V., et al. 1991. Novel structurally distinct family of leucocyte surface glycoproteins including CD9, CD37, CD53 and CD63. FEBS Lett. 288: 1-4.

CHROMOSOMAL LOCATION

Genetic locus: CD63 (human) mapping to 12q13.2; Cd63 (mouse) mapping to 10 D3.

SOURCE

CD63 (MX-49.129.5) is a mouse monoclonal antibody raised against full length CD63 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD63 (MX-49.129.5) is available conjugated to agarose (sc-5275 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-5275 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-5275 PE), fluorescein (sc-5275 FITC), Alexa Fluor® 488 (sc-5275 AF488), Alexa Fluor® 546 (sc-5275 AF546), Alexa Fluor® 594 (sc-5275 AF594) or Alexa Fluor® 647 (sc-5275 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-5275 AF680) or Alexa Fluor® 790 (sc-5275 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, CD63 (MX-49.129.5) is available conjugated to either TRITC (sc-5275 TRITC, 200 µg/ml) or Alexa Fluor® 405 (sc-5275 AF405, 200 µg/ml), for 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

CD63 (MX-49.129.5) is recommended for detection of CD63 of mouse, rat 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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

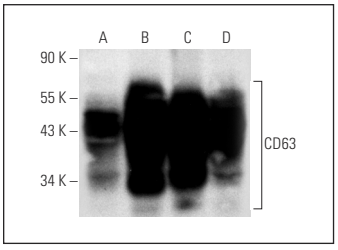
Suitable for use as control antibody for CD63 siRNA (h): sc-29391, CD63 siRNA (m): sc-35792, CD63 siRNA (r): sc-270549, CD63 shRNA Plasmid (h): sc-29391-SH, CD63 shRNA Plasmid (m): sc-35792-SH, CD63 shRNA Plasmid (r): sc-270549-SH, CD63 shRNA (h) Lentiviral Particles: sc-29391-V, CD63 shRNA (m) Lentiviral Particles: sc-35792-V and CD63 shRNA (r) Lentiviral Particles: sc-270549-V.

Molecular Weight of CD63 core protein: 26 kDa.

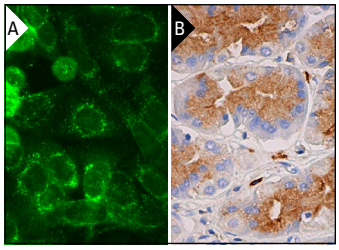
Molecular Weight of glycosylated CD63: 30-60 kDa.

Positive Controls: T24 cell lysate: sc-2292, SK-MEL-28 cell lysate: sc-2236 or CCD-1064Sk cell lysate: sc-2263.

DATA



CD63 (MX-49.129.5): sc-5275. Western blot analysis of CD63 expression in T24 (**A**), SK-MEL-28 (**B**), CCD-1064Sk (**C**) and C32 (**D**) whole cell lysates.



CD63 (MX-49.129.5) Alexa Fluor® 488: sc-5275 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic vesicles localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**A**). CD63 (MX-49.129.5): sc-5275. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Ageberg, M. and Lindmark, A. 2003. Characterisation of the biosynthesis and processing of the neutrophil granule membrane protein CD63 in myeloid cells. Clin. Lab. Haematol. 25: 297-306.
2. Verta, R., et al. 2022. Generation of spike-extracellular vesicles (S-EVs) as a tool to mimic SARS-CoV-2 interaction with host cells. Cells 11: 146.
3. Zeng, H., et al. 2023. Exosomal PD-L1 promotes the formation of an immunosuppressive microenvironment in gastric diffuse large B-cell lymphoma. Oncol. Rep. 49: 88.

RESEARCH USE

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