

CD63 (MX-49.129.5): sc-5275

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 IgG₁ 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.

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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 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

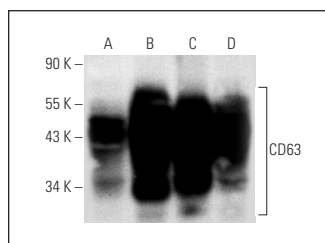
Suitable for use as control antibody for CD63 siRNA (h): sc-29391, CD63 siRNA (m): sc-35792, CD63 siRNA (r): sc-270549, CD63 shRNA Plasmid (h): sc-29391-SH, CD63 shRNA Plasmid (m): sc-35792-SH, CD63 shRNA Plasmid (r): sc-270549-SH, CD63 shRNA (h) Lentiviral Particles: sc-29391-V, CD63 shRNA (m) Lentiviral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

Molecular Weight of CD63 core protein: 26 kDa.

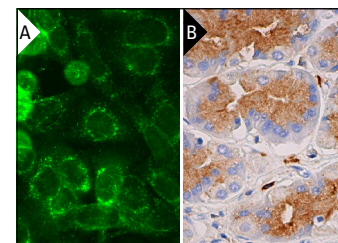
Molecular Weight of glycosylated CD63: 30-60 kDa.

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.