SANTA CRUZ BIOTECHNOLOGY, INC.

CD63 (R-13): sc-31213

BACKGROUND

The tetraspanins are integral membrane proteins expressed on cell surface and granular membranes of hematopoietic cells and are components of multimolecular complexes with specific integrins. The tetraspanin LAMP-3 (also known as CD63) is a lysosomal membrane glycoprotein that translocates to the plasma membrane after platelet activation. LAMP-3 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. LAMP-3 is a member of the TM4 superfamily of leukocyte glycoproteins that includes CD9, CD37 and CD53, which contain four transmembrane regions. LAMP-3 may play a role in phagocytic and intracellular lysosome-phagosome fusion events.

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.
3. Nishikata, H., et al. 1992. The rat mast cell antigen AD1 (homolog to human CD63 or melanoma antigen ME491) is expressed in other cells in culture. J. Immunol. 149: 862-870.
4. Wright, M.D., et al. 1994. The ins and outs of the transmembrane 4 superfamily. Immunol. Today 15: 588-594.
5. Sedlmayr, P., et al. 1996. Flow cytometric detection of intracellular platelet antigens. Cytometry 23: 284-289.
6. Amano, T., et al. 2001. Dynamics of intracellular granules with CD63-GFP in rat basophilic leukemia cells. J. Biochem. 129: 739-744.
7. Mahmudi-Azer, S., et al. 2002. Translocation of the tetraspanin CD63 in association with human eosinophil mediator release. Blood 99: 4039-4047.

CHROMOSOMAL LOCATION

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

SOURCE

CD63 (R-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CD63 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-31213 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

CD63 (R-13) is recommended for detection of CD63 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 CD63 siRNA (h): sc-29391, CD63 siRNA (m): sc-35792, CD63 shRNA Plasmid (h): sc-29391-SH, CD63 shRNA Plasmid (m): sc-35792-SH, CD63 shRNA (h) Lentiviral Particles: sc-29391-V and CD63 shRNA (m) Lentiviral Particles: sc-35792-V.

Molecular Weight of CD63 core protein: 26 kDa.

Molecular Weight of glycosylated CD63: 30-60 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Yoshida, N., et al. 2011. CXCR4 expression on activated B cells is down-regulated by CD63 and IL-21. J. Immunol. 186: 2800-2808.

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.