

CD63 (T-14): sc-25183

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

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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 (homologue to human CD63 or melanoma antigen ME491) is expressed in other cells in culture. *J. Immunol.* 149: 862-870.
4. Rous, B.A., et al. 2002. Role of adaptor complex AP-3 in targeting wild-type and mutated CD63 to lysosomes. *Mol. Biol. Cell* 13: 1071-1082.
5. von Lindern, J.J., et al. 2003. Potential role for CD63 in CCR5-mediated human immunodeficiency virus type 1 infection of macrophages. *J. Virol.* 77: 3624-3633.
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7. Pfistershammer, K., et al. 2004. CD63 as an activation-linked T cell co-stimulatory element. *J. Immunol.* 173: 6000-6008.
8. Lee, M., et al. 2005. Peptide YY and neuropeptide Y induce Villin expression, reduce adhesion, and enhance migration in small intestinal cells through the regulation of CD63, matrix metalloproteinase-3, and Cdc42 activity. *J. Biol. Chem.* 280: 125-136.

CHROMOSOMAL LOCATION

Genetic locus: Cd63 (mouse) mapping to 10 D3.

SOURCE

CD63 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CD63 of mouse origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-25183 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD63 (T-14) is recommended for detection of CD63 of mouse and rat 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 (m): sc-35792, CD63 shRNA Plasmid (m): sc-35792-SH 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. Lee, C., et al. 2012. Exosomes mediate the cytoprotective action of mesenchymal stromal cells on hypoxia-induced pulmonary hypertension. *Circulation* 126: 2601-2611.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **CD63 (MX-49.129.5): sc-5275**, our highly recommended monoclonal alternative to CD63 (T-14).