

# CD63 (CLB-180): sc-59284

## 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

- 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.
- Horejsi, V., et al. 1991. Novel structurally distinct family of leucocyte surface glycoproteins including CD9, CD37, CD53 and CD63. *FEBS Lett.* 288: 1-4.
- 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.
- 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.
- 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.
- Duffield, A., et al. 2003. The tetraspanin CD63 enhances the internalization of the H/K-ATPase  $\beta$  subunit. *Proc. Natl. Acad. Sci. USA* 100: 15560-15565.
- Pfistershammer, K., et al. 2004. CD63 as an activation-linked T cell costimulatory element. *J. Immunol.* 173: 6000-6008.
- 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 (human) mapping to 12q13.2.

## SOURCE

CD63 (CLB-180) is a mouse monoclonal antibody raised against cytochrome B enriched cells of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.1% stabilizer protein.

## APPLICATIONS

CD63 (CLB-180) is recommended for detection of CD63 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per  $1 \times 10^6$  cells).

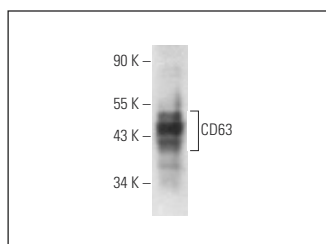
Suitable for use as control antibody for CD63 siRNA (h): sc-29391, CD63 shRNA Plasmid (h): sc-29391-SH and CD63 shRNA (h) Lentiviral Particles: sc-29391-V.

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 (CLB-180): sc-59284. Western blot analysis of CD63 expression in T24 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Chen, W., et al. 2018. Phosphorylation of connexin 43 induced by traumatic brain injury promotes exosome release. *J. Neurophysiol.* 119: 305-311.
- Xu, H., et al. 2019. Exosomes derived from PM2.5-treated lung cancer cells promote the growth of lung cancer via the Wnt3a/ $\beta$ -catenin pathway. *Oncol. Rep.* 41: 1180-1188.
- Mohan, R.R., et al. 2019. Decorin antagonizes corneal fibroblast migration via caveolae-mediated endocytosis of epidermal growth factor receptor. *Exp. Eye Res.* 180: 200-207.

## STORAGE

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

## RESEARCH USE

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



See **CD63 (MX-49.129.5): sc-5275** for CD63 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.