

# CD63 (E-12): sc-365604



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.

## CHROMOSOMAL LOCATION

Genetic locus: CD63 (human) mapping to 12q13.2.

## SOURCE

CD63 (E-12) is a mouse monoclonal antibody raised against amino acids 45-238 mapping at the C-terminus of CD63 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD63 (E-12) is available conjugated to agarose (sc-365604 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365604 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365604 PE), fluorescein (sc-365604 FITC), Alexa Fluor® 488 (sc-365604 AF488), Alexa Fluor® 546 (sc-365604 AF546), Alexa Fluor® 594 (sc-365604 AF594) or Alexa Fluor® 647 (sc-365604 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365604 AF680) or Alexa Fluor® 790 (sc-365604 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

CD63 (E-12) is recommended for detection of CD63 of human origin by Western Blotting (starting dilution 1:100, 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) 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 shRNA Plasmid (h): sc-29391-SH and CD63 shRNA (h) Lentiviral Particles: sc-29391-V.

Molecular Weight of CD63 core protein: 26 kDa.

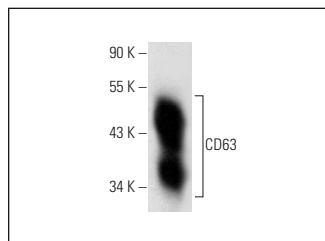
Molecular Weight of glycosylated CD63: 30-60 kDa.

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

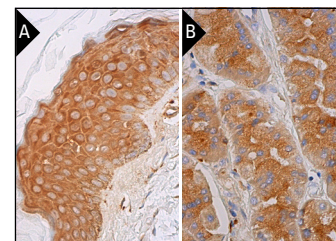
## STORAGE

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

## DATA



CD63 (E-12): sc-365604. Western blot analysis of CD63 expression in T24 whole cell lysate.



CD63 (E-12): sc-365604. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes, fibroblasts, Langerhans cells and melanocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- Gallart-Palau, X., et al. 2015. Extracellular vesicles are rapidly purified from human plasma by protein organic solvent precipitation (PROSPR). *Sci. Rep.* 5: 14664.
- Krampitz, G.W., et al. 2016. Identification of tumorigenic cells and therapeutic targets in pancreatic neuroendocrine tumors. *Proc. Natl. Acad. Sci. USA* 113: 4464-4469.
- Ahmed, W., et al. 2018. Tracking EBV-encoded RNAs (EBERs) from the nucleus to the excreted exosomes of B-lymphocytes. *Sci. Rep.* 8: 15438.
- Huang, L., et al. 2019. Drug-resistant endothelial cells facilitate progression, EMT and chemoresistance in nasopharyngeal carcinoma via exosomes. *Cell. Signal.* 63: 109385.
- Pinto, D.O., et al. 2019. HTLV-1 extracellular vesicles promote cell-to-cell contact. *Front. Microbiol.* 10: 2147.
- Chang, Y.J., et al. 2019. Extracellular microRNA-92a mediates endothelial cell-macrophage communication. *Arterioscler. Thromb. Vasc. Biol.* 39: 2492-2504.
- Zhou, T., et al. 2019.  $\alpha$ -synuclein accumulation in SH-SY5Y cell impairs autophagy in microglia by exosomes overloading miR-19a-3p. *Epigenomics* 11: 1661-1677.
- Sindi, H.A., et al. 2020. Therapeutic potential of KLF2-induced exosomal microRNAs in pulmonary hypertension. *Nat. Commun.* 11: 1185.
- Lu, Y., et al. 2020. Exosomes derived from brain metastatic breast cancer cells destroy the blood-brain barrier by carrying lncRNA GS1-600G8.5. *Biomed Res. Int.* 2020: 7461727.

## RESEARCH USE

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

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