

CD36 (SM ϕ): sc-7309

BACKGROUND

CD36 (collagen type I receptor, thrombospondin receptor, FAT, GP4, GP3B, GPIV, PASIV, SCARB3) is a membrane glycoprotein on platelets, monocytes and umbilical vein endothelial cells. CD36 binds to collagen, thrombospondin, anionic phospholipids and oxidized LDL. CD36 plays a key role in both phagocytosis and lipid recycling, for constant production of mature spermatozoa. Mutations in this gene cause platelet glycoprotein deficiency. Three alternatively spliced transcript variants encoding the same protein isoform have been found for this gene. Thrombospondins are widely distributed proteins that influence a variety of adhesive processes and CD36 may have important functions as a cell adhesion molecule.

CHROMOSOMAL LOCATION

Genetic locus: CD36 (human) mapping to 7q21.11; Cd36 (mouse) mapping to 5 A3.

SOURCE

CD36 (SM ϕ) is a mouse monoclonal antibody raised against human tonsil cells and peripheral blood monocytes.

PRODUCT

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

CD36 (SM ϕ) is available conjugated to agarose (sc-7309 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7309 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-7309 PE), fluorescein (sc-7309 FITC), Alexa Fluor[®] 488 (sc-7309 AF488) or Alexa Fluor[®] 594 (sc-7309 AF594) or Alexa Fluor[®] 647 (sc-7309 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

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APPLICATIONS

CD36 (SM ϕ) is recommended for detection of CD36 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for CD36 siRNA (h): sc-29995, CD36 siRNA (m): sc-37245, CD36 shRNA Plasmid (h): sc-29995-SH, CD36 shRNA Plasmid (m): sc-37245-SH, CD36 shRNA (h) Lentiviral Particles: sc-29995-V and CD36 shRNA (m) Lentiviral Particles: sc-37245-V.

Molecular Weight of CD36: 88 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, THP-1 cell lysate: sc-2238 or human platelet extract: sc-363773.

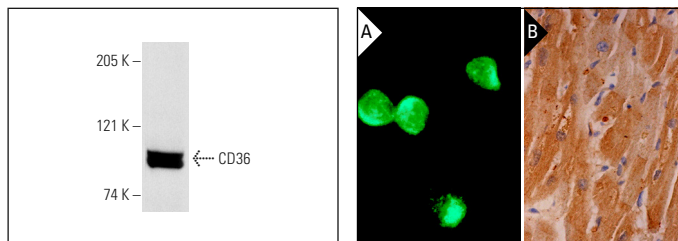
RESEARCH USE

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

STORAGE

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

DATA



CD36 (SM ϕ): sc-7309. Western blot analysis of CD36 expression in HUV-EC-C whole cell lysate.

CD36 (SM ϕ): sc-7309. Immunofluorescence staining of methanol-fixed THP-1 cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes (B).

SELECT PRODUCT CITATIONS

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- Rabani, V., et al. 2016. Comparative lipidomics and proteomics analysis of platelet lipid rafts using different detergents. *Platelets* 27: 634-641.
- Zhao, J., et al. 2017. Exogenous lipids promote the growth of breast cancer cells via CD36. *Oncol. Rep.* 38: 2105-2115.
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- Liu, Q., et al. 2019. Inhibitory effect of 17 β -estradiol on triglyceride synthesis in skeletal muscle cells is dependent on ESR1 and not ESR2. *Mol. Med. Rep.* 19: 5087-5096.
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- Khan, D., et al. 2021. SIRT6 transcriptionally regulates fatty acid transport by suppressing PPAR γ . *Cell Rep.* 35: 109190.
- Wu, S.C., et al. 2022. Stomatin modulates adipogenesis through the ERK pathway and regulates fatty acid uptake and lipid droplet growth. *Nat. Commun.* 13: 4174.
- Bielawiec, P., et al. 2023. Cannabidiol improves muscular lipid profile by affecting the expression of fatty acid transporters and inhibiting *de novo* lipogenesis. *Sci. Rep.* 13: 3694.

PROTOCOLS

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