

CD36 (5K65): sc-70644

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.

REFERENCES

- Greenwalt, D.E., et al. 1992. Membrane glycoprotein CD36: a review of its role in adherence, signal transduction, and transfusion medicine. *Blood* 80: 1105-1115.
- Daniel, J.L., et al. 1994. Collagen induces normal signal transduction in platelets deficient in CD36 (platelet glycoprotein IV). *Thromb. Haemost.* 71: 353-356.
- Alessio, M., et al. 1996. Synthesis, processing, and intracellular transport of CD36 during monocytic differentiation. *J. Biol. Chem.* 271: 1770-1775.

CHROMOSOMAL LOCATION

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

SOURCE

CD36 (5K65) is a mouse monoclonal antibody raised against human tonsil cells and peripheral blood monocytes.

PRODUCT

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

APPLICATIONS

CD36 (5K65) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg 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: THP-1 cell lysate: sc-2238, HUV-EC-C whole cell lysate: sc-364180 or human platelet extract: sc-363773.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

SELECT PRODUCT CITATIONS

- Petito-da-Silva, T.I., et al. 2019. Empaglifozin mitigates NAFLD in high-fat-fed mice by alleviating Insulin resistance, lipogenesis and ER stress. *Mol. Cell. Endocrinol.* 498: 110539.
- Chen, Y.S., et al. 2019. Ursodeoxycholic acid regulates hepatic energy homeostasis and white adipose tissue macrophages polarization in leptin-deficiency obese mice. *Cells* 8: 253.
- Ma, C., et al. 2020. Astragalus flavone ameliorates atherosclerosis and hepatic steatosis via inhibiting lipid-disorder and inflammation in apoE^{-/-} mice. *Front. Pharmacol.* 11: 610550.
- Zhou, Y., et al. 2020. pH-sensitive and long-circulation nanoparticles for near-infrared fluorescence imaging-monitored and chemo-photothermal synergistic treatment against gastric cancer. *Front. Pharmacol.* 11: 610883.
- Wang, C.H., et al. 2021. Losartan prevents hepatic steatosis and macrophage polarization by inhibiting HIF-1α in a murine model of NAFLD. *Int. J. Mol. Sci.* 22: 7841.
- Liu, H.M., et al. 2021. Losartan attenuates Insulin resistance and regulates browning phenomenon of white adipose tissue in ob/ob mice. *Curr. Issues Mol. Biol.* 43: 1828-1843.
- Wang, C.H., et al. 2022. Antioxidants rich herbal formula Ger-Gen-Chyn-Lian-Tang protects lipotoxicity and ameliorates inflammation signaling through regulation of mitochondrial biogenesis and mitophagy in nonalcoholic fatty liver disease mice. *Front. Biosci.* 27: 242.

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 **CD36 (SMΦ): sc-7309** for CD36 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.