

CD36 (1.BB.344): sc-70642

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

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- Dawson, D.W., et al. 1997. CD36 mediates the *in vitro* inhibitory effects of Thrombospondin 1 on endothelial cells. *J. Cell Biol.* 138: 707-717.
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- Truman, L.A., et al. 2004. Macrophage chemotaxis to apoptotic Burkitt's lymphoma cells *in vitro*: role of CD14 and CD36. *Immunobiology* 209: 21-30.
- Pohl, J., et al. 2005. FAT/CD36-mediated long-chain fatty acid uptake in adipocytes requires plasma membrane rafts. *Mol. Biol. Cell* 16: 24-31.
- Hoebe, K., et al. 2005. CD36 is a sensor of diacylglycerides. *Nature* 433: 523-527.

CHROMOSOMAL LOCATION

Genetic locus: CD36 (human) mapping to 7q21.11.

SOURCE

CD36 (1.BB.344) is a mouse monoclonal antibody raised against fetal erythrocytes of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD36 (1.BB.344) is available conjugated fluorescein (sc-70642 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

APPLICATIONS

CD36 (1.BB.344) is recommended for detection of CD36 of 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 shRNA Plasmid (h): sc-29995-SH and CD36 shRNA (h) Lentiviral Particles: sc-29995-V.

Molecular Weight of CD36: 88 kDa.

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

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

- Subramaniam, D., et al. 2010. Cholesterol rich lipid raft microdomains are gateway for acute phase protein, SERPINA1. *Int. J. Biochem. Cell Biol.* 42: 1562-1570.
- Schneider, H., et al. 2014. Protein mediated fatty acid uptake: synergy between CD36/FAT-facilitated transport and acyl-CoA synthetase-driven metabolism. *Arch. Biochem. Biophys.* 546: 8-18.

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.

PROTOCOLS

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



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