SANTA CRUZ BIOTECHNOLOGY, INC.

CD36 (ME542): sc-13572

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (mouse) mapping to 5 A3.

SOURCE

CD36 (ME542) is a mouse monoclonal antibody raised against full length CD36 of mouse origin.

PRODUCT

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

CD36 (ME542) is available conjugated to either phycoerythrin (sc-13572 PE) or fluorescein (sc-13572 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

In addition, CD36 (ME542) is available conjugated to PerCP-Cy5.5 (sc-13572 PCPC5), 100 tests in 2 ml, for IF, IHC(P) and FCM.

APPLICATIONS

CD36 (ME542) is recommended for detection of CD36 of mouse and rat origin by 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 10^6 cells).

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

Molecular Weight of CD36: 88 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 2) 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.

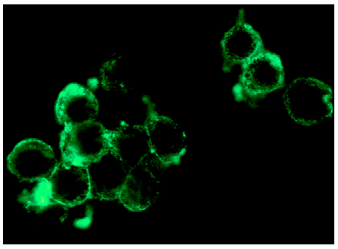
STORAGE

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

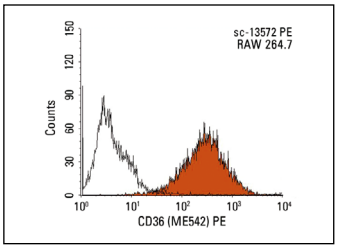
RESEARCH USE

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

DATA



CD36 (ME542): sc-13572. Immunofluorescence staining of methanol-fixed RAW 264.7 cells showing membrane staining.



CD36 (ME542): sc-13572. Indirect FCM analysis of RAW 264.7 cells stained with CD36 (ME542), followed by PE-conjugated goat anti-mouse IgA: sc-3695. Black line histogram represents the isotype control, normal mouse IgA-PE: sc-3600.

SELECT PRODUCT CITATIONS

1. Liang, C.P., et al. 2004. Increased CD36 protein as a response to defective Insulin signaling in macrophages. J. Clin. Invest. 113: 764-773.
2. Ritchie, I.R., et al. 2014. Adiponectin is not required for exercise training-induced improvements in glucose and Insulin tolerance in mice. Physiol. Rep. 2: e12146.
3. Maher, A.C., et al. 2014. TBC1D1 reduces palmitate oxidation by inhibiting β-HAD activity in skeletal muscle. Am. J. Physiol. Regul. Integr. Comp. Physiol. 307: R1115-R1123.
4. Lefèvre, L., et al. 2015. LRH-1 mediates anti-inflammatory and antifungal phenotype of IL-13-activated macrophages through the PPARγ ligand synthesis. Nat. Commun. 6: 6801.
5. Chang, R., et al. 2016. Study of valproic acid-enhanced hepatocyte steatosis. Biomed Res. Int. 2016: 9576503.
6. Miotto, P.M., et al. 2018. Sex differences in mitochondrial respiratory function in human skeletal muscle. Am. J. Physiol. Regul. Integr. Comp. Physiol. 314: R909-R915.
7. Arias, E.B., et al. 2019. Whole body glucoregulation and tissue-specific glucose uptake in a novel Akt substrate of 160 kDa knockout rat model. PLoS ONE 14: e0216236.
8. Zheng, X., et al. 2020. *In vivo* glucoregulation and tissue-specific glucose uptake in female Akt substrate 160 kDa knockout rats. PLoS ONE 15: e0223340.
9. Fernández-García, V., et al. 2022. NOD1 splenic activation confers ferroptosis protection and reduces macrophage recruitment under pro-atherogenic conditions. Biomed. Pharmacother. 148: 112769.

PROTOCOLS

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