PRODUCT INFORMATION

Scavenger Receptor B2/CD36 Monoclonal Antibody (Clone JC63.1)

Item No. 188150

Overview and Properties

Contents:	This vial contains 100 µg of protein L-purified monoclonal antibody.
Synonyms:	Fatty Acid Translocase, GPIIIb, GPIV, Platelet Glycoprotein 4, PAS IV, Platelet Collagen Receptor, Thrombospondin Receptor
Immunogen:	Recombinant full-length mouse CD36 expressed in adenovirus
Cross Reactivity:	(+) CD36
Species Reactivity:	(+) Human, mouse, rat
Uniprot No.:	Q08857
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol, and 0.02% sodium azide
Clone:	JC63.1
Host:	CD36 null mouse
Isotype:	IgA
Applications:	Flow cytometry; the recommended starting concentration is 0.5 µg/ml. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image

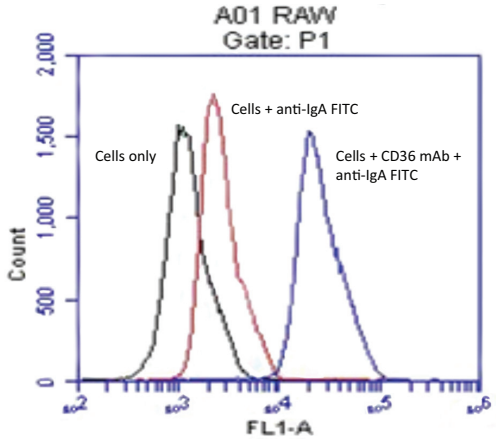

Figure 1: Flow cytometry with RAW 264.7 cells

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Description

CD36, also known as scavenger receptor B2 or fatty acid translocase, is a transmembrane glycoprotein that has roles in fatty acid uptake and lipid metabolism and signaling.[1] It is composed of N- and C-terminal cytoplasmic tails, two transmembrane domains, and an extracellular loop that binds to a variety of lipid ligands, including long-chain fatty acids, oxidized LDL, and oxidized phospholipids, and protein ligands, such as thrombospondin (TSP-1), and is subject to post-translational modifications.[1-3] CD36 is expressed by a variety of cells, including hematopoietic cells such as platelets, monocytes, and macrophages, as well as adipocytes, enterocytes, cardiac and skeletal myocytes, and endothelial and epithelial cells.[1,4] It also exists as a soluble form, sCD36, which is produced *via* plasma proteases.[2] CD36 expression is regulated by several transcription factors, including peroxisome proliferator-activated receptor (PPAR), STAT3, and hypoxia-inducible factor-1α (HIF-1α), in a tissue-dependent manner.[1,3] It is localized to the plasma membrane and within endosomes, the endoplasmic reticulum, and mitochondria, and is translocated between these compartments in response to various stimuli, including insulin-induced PI3K signaling and muscle contraction-induced AMPK signaling, to regulate fatty acid uptake.[2,3] It has additional roles in the phagocytosis of apoptotic cells and *P. falciparum*-infected red blood cells (RBCs), angiogenesis, thrombosis, inflammation, and atherosclerosis, as well as cancer metastasis.[3,5] Cayman's Scavenger Receptor B2/CD36 Monoclonal Antibody (Clone JC63.1) can be used for flow cytometry (FC) applications.

References

1. Glatz, J.F.C. and Luiken, J.J.F.P. Dynamic role of the transmembrane glycoprotein CD36 (SR-B2) in cellular fatty acid uptake and utilization. *J. Lipid Res.* **59(7)**, 1084-1093 (2018).
2. Wang, J. and Li, Y. CD36 tango in cancer: Signaling pathways and functions. *Theranostics* **9(17)**, 4893-4908 (2019).
3. Yang, X., Okamura, D., Lu, X., *et al*. CD36 in chronic kidney disease: Novel insights and therapeutic opportunities. *Nat. Rev. Nephrol.* **13(12)**, 769-781 (2017).
4. Glatz, J.F.C. and Luiken, J.J.F.P. From fat to FAT (CD36/SR-B2). *Biochimie* **136**, 21-26 (2017).
5. Maréchal, L., Laviolette, M., Rodrigue-Way, A., *et al*. The CD36-PPARγ pathway in metabolic disorders. *Int. J. Mol. Sci.* **19(5)**, 1529 (2017).

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