

PRODUCT INFORMATION



Scavenger Receptor B2/CD36 Monoclonal FITC Antibody (Clone JC63.1) Item No. 10009870

Overview and Properties

Contents:	This vial contains a 100 µg of fluorescein-labeled purified monoclonal antibody.
Synonyms:	GP1Ib, GPIV, Platelet Glycoprotein 4, Fatty Acid Translocase, PAS IV, Platelet Collagen Receptor, Thrombospondin Receptor
Immunogen:	Recombinant adenovirus expressing full-length mouse CD36 ⁴
Cross Reactivity:	(+) CD36
Species Reactivity:	(+) Human, mouse, rat; other species not tested
Uniprot No.:	Q08857
Form:	Liquid
Storage:	-20°C (as supplied)
Storage Buffer:	PBS, pH 7.2, with 50% glycerol, 0.1% BSA, and 0.02% sodium chloride
Stability:	≥1 year
Clone:	JC63.1
Host:	CD36 null mouse
Isotype:	IgA
Applications:	Flow cytometry (FC) and immunofluorescence (IF); the recommended starting dilution is 1:200 for FC and IF. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

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.^{3,4} 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 FITC Antibody (Clone JC63.1) can be used for flow cytometry (FC) and immunofluorescence (IF) applications.

References

1. Glatz, J.F.C. and Luiken, J.J.F.P. *J. Lipid Res.* **59(7)**, 1084-1093 (2018).
2. Wang, J. and Li, Y. *Theranostics* **9(17)**, 4893-4908 (2019).
3. Yang, X., Okamura, D., Lu, X., et al. *Nat. Rev. Nephrol.* **13(12)**, 769-781 (2017).
4. Glatz, J.F.C. and Luiken, J.J.F.P. *Biochimie* **136**, 21-26 (2017).
5. Maréchal, L., Laviolette, M., Rodrigue-Way, A., et al. *Int. J. Mol. Sci.* **19(5)**, 1529 (2017).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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