

# PRODUCT INFORMATION



## Scavenger Receptor B2/CD36 Extracellular Domain (mouse, recombinant)

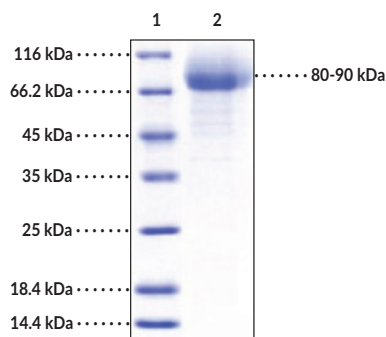
Item No. 35729

### Overview and Properties

<b>Synonyms:</b>	Fatty Acid Translocase, GPIIIB, GPIV, PAS IV, Platelet Glycoprotein 4, Platelet Glycoprotein IV
<b>Source:</b>	Active recombinant mouse C-terminal His-tagged CD36 expressed in HEK293 cells
<b>Amino Acids:</b>	30-439
<b>Uniprot No.:</b>	Q08857
<b>Molecular Weight:</b>	47.8 kDa
<b>Storage:</b>	-80°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Purity:</b>	<b>batch specific</b> (≥92% estimated by SDS-PAGE)
<b>Supplied in:</b>	Lyophilized from sterile PBS, pH 7.4
<b>Endotoxin Testing:</b>	<1.0 EU/μg, determined by the LAL endotoxin assay
<b>Protein Concentration:</b>	<b>batch specific</b> mg/ml
<b>Activity:</b>	<b>batch specific</b> U/ml
<b>Specific Activity:</b>	<b>batch specific</b> U/mg

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Image



Lane 1: MW Markers  
Lane 2: Scavenger Receptor B2/CD36 Extracellular Domain

**SDS-PAGE Analysis of Scavenger Receptor B2/CD36 Extracellular Domain.** This protein has a calculated molecular weight of 47.8 kDa. It has an apparent molecular weight of approximately 80-90 kDa by SDS-PAGE under reducing conditions due to glycosylation.

**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**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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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.<sup>1</sup> 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.<sup>1-3</sup> 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.<sup>1,4</sup> It also exists as a soluble form, sCD36, which is produced *via* plasma proteases.<sup>2</sup> CD36 expression is regulated by several transcription factors, including peroxisome proliferator-activated receptor (PPAR), STAT3, and hypoxia-inducible factor-1 $\alpha$  (HIF-1 $\alpha$ ), in a tissue-dependent manner.<sup>1,3</sup> 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.<sup>2,3</sup> 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.<sup>3,5</sup> Cayman's Scavenger Receptor B2/CD36 Extracellular Domain (mouse, recombinant) protein can be used for binding assays. This protein consists of 421 amino acids and has a calculated molecular weight of 47.8 kDa. By SDS-PAGE, under reducing conditions, the apparent molecular mass of the protein is 80-90 kDa due to glycosylation.

## References

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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-PPAR $\gamma$  pathway in metabolic disorders. *Int. J. Mol. Sci.* **19**(5), 1529 (2017).

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