10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# CD36 Rabbit pAb

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Catalog # AP94795

## Product Information

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| **Application** | WB, IHC-P, IHC-F, IF |
| **Primary Accession** | Q08857 |
| **Reactivity** | Mouse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 52698 |
| **Physical State** | Liquid |
| **Immunogen** | Recombinant mouse CD36 protein |
| **Epitope Specificity** | 30-439/472 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SUBCELLULAR LOCATION** | Membrane; Multi-pass membrane protein. |
| **DISEASE** | Defects in CD36 are the cause of platelet glycoprotein IV deficiency (PG4D)[MIM:608404]; also known as CD36 deficiency. Platelet glycoprotein IV deficiency can be divided into 2 subgroups. The type I phenotype is characterized by platelets and monocytes/macrophages exhibiting complete CD36 deficiency. The type II phenotype lacks the surface expression of CD36 in platelets, but expression in monocytes/macrophages is near normal. Genetic variations in CD36 are associated with susceptibility to coronary heart disease type 7 (CHDS7) [MIM:610938]. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | The protein encoded by this gene is the fourth major glycoprotein of the platelet surface and serves as a receptor for thrombospondin in platelets and various cell lines. Since thrombospondins are widely distributed proteins involved in a variety of adhesive processes, this protein may have important functions as a cell adhesion molecule. It binds to collagen, thrombospondin, anionic phospholipids and oxidized LDL. It directly mediates cytoadherence of Plasmodium falciparum parasitized erythrocytes and it binds long chain fatty acids and may function in the transport and/or as a regulator of fatty acid transport. Mutations in this gene cause platelet glycoprotein deficiency. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Feb 2014] |

## Additional Information

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| **Gene ID** | 12491 |
| **Other Names** | Platelet glycoprotein 4, Glycoprotein IIIb, GPIIIB, PAS IV, PAS-4, Platelet glycoprotein IV, GPIV, CD36, Cd36 |

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| **Dilution** | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

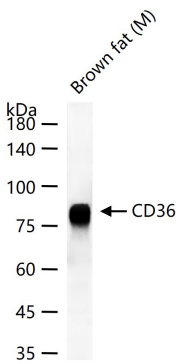
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| **Name** | Cd36 |
| **Function** | Multifunctional glycoprotein that acts as a receptor for a broad range of ligands. Ligands can be of proteinaceous nature like thrombospondin, fibronectin, collagen or amyloid-beta as well as of lipidic nature such as oxidized low-density lipoprotein (oxLDL), anionic phospholipids, long- and very long-chain fatty acids and bacterial diacylated lipopeptides (PubMed:18332148, PubMed:7685021). They are generally multivalent and can therefore engage multiple receptors simultaneously, the resulting formation of CD36 clusters initiates signal transduction and internalization of receptor-ligand complexes. The dependency on coreceptor signaling is strongly ligand specific. Cellular responses to these ligands are involved in angiogenesis, inflammatory response, fatty acid metabolism, taste and dietary fat processing in the intestine (Probable) (PubMed:19847289, PubMed:20037584, PubMed:23395392). Binds long- and very long-chain fatty acids and facilitates their transport into cells, thus participating in muscle lipid utilization, adipose energy storage, and gut fat absorption (PubMed:18332148, PubMed:30605677). Mechanistically, palmitoylated CD36 captures fatty acids on the cell surface, the binding of fatty acids activates downstream kinase LYN, which phosphorylates the palmitoyltransferase ZDHHC5 and inactivates it, resulting in the subsequent depalmitoylation of CD36, a step needed to initiate the endocytic process and delivery of fatty acids into the cell (PubMed:32958780). In the small intestine, plays a role in proximal absorption of dietary fatty acid and cholesterol for optimal chylomicron formation, possibly through the activation of MAPK1/3 (ERK1/2) signaling pathway (By similarity) (PubMed:17507371, PubMed:18753675, PubMed:21610069). Involved in oral fat perception and preferences (PubMed:16276419). Detection into the tongue of long-chain fatty acids leads to a rapid and sustained rise in flux and protein content of pancreatobiliary secretions (By similarity) (PubMed:16276419). In taste receptor cells, mediates the induction of an increase in intracellular calcium levels by long-chain fatty acids, leading to the activation of the gustatory neurons in the nucleus of the solitary tract (PubMed:18162488). Important factor in both ventromedial hypothalamus neuronal sensing of long-chain fatty acid and the regulation of energy and glucose homeostasis (By similarity) (PubMed:23557700). Receptor for thrombospondins, THBS1 and THBS2, mediating their antiangiogenic effects (PubMed:15748999). Involved in inducing apoptosis in podocytes in response to elevated free fatty acids, acting together with THBS1 (PubMed:25835637). As a coreceptor for TLR4:TLR6 heterodimer, promotes inflammation in monocytes/macrophages. Upon ligand binding, such as oxLDL or amyloid- beta 42, interacts with the heterodimer TLR4:TLR6, the complex is internalized and triggers inflammatory response, leading to NF-kappa-B- dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway, as well as IL1B secretion, through the priming and activation of the NLRP3 inflammasome (PubMed:20037584, PubMed:23812099). Selective and nonredundant sensor of microbial diacylated lipopeptide that signal via TLR2:TLR6 heterodimer, this cluster triggers signaling from the cell surface, leading to the NF-kappa-B-dependent production of TNF, via MYD88 signaling pathway and subsequently is targeted |

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| | to the Golgi in a lipid-raft dependent pathway (By similarity) (PubMed:15690042, PubMed:19847289). |
| **Cellular Location** | Cell membrane; Multi-pass membrane protein. Apical cell membrane. Membrane raft {ECO:0000250\|UniProtKB:P16671}. Golgi apparatus {ECO:0000250\|UniProtKB:P16671}. Note=Upon ligand-binding, internalized through dynamin-dependent endocytosis. {ECO:0000250\|UniProtKB:P16671} |
| **Tissue Location** | Expressed in the apical side of lingual taste bud cells of the circumvallate papillae (PubMed:16276419, PubMed:21901153) Highly expressed in the intestine on the luminal surface of enterocytes. In small intestines expression levels follow a steep decreasing gradient from proximal to distal segments (PubMed:17507371) Expressed in macrophages (PubMed:23395392, PubMed:23812099). Cell surface expression detected in lung alveolar macrophages, dendritic macrophages and lung macrophages (at protein level) (PubMed:19362712) |

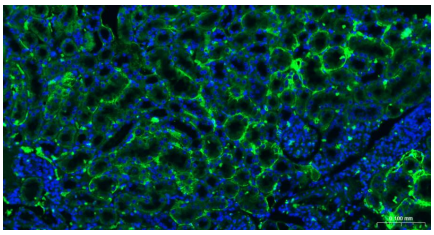
## Background

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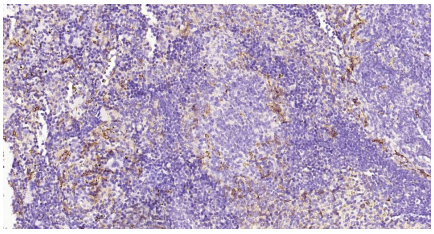
## Images




25 ug total protein per lane of various lysates (see on figure) probed with CD36 polyclonal antibody, unconjugated (AP94795) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



Paraformaldehyde-fixed, paraffin embedded Mouse Kidney; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with CD36 Polyclonal Antibody, Unconjugated (AP94795) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (green, AP94795-BF488), DAPI (blue, C02-04002) was used to stain the cell nuclei.



Paraformaldehyde-fixed, paraffin embedded Mouse Spleen; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with CD36 Polyclonal Antibody, Unconjugated (AP94795) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.