

CD36 Rabbit pAb
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Catalog # AP94795**Specification****CD36 Rabbit pAb - Product Information**

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q08857
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	52 KDa
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.
SIMILARITY	Belongs to the CD36 family.
SUBUNIT	Interacts with THBS1 and THBS2; the interactions mediate the THBS antiangiogenic activity.
Post-translational modifications	N-glycosylated and O-glycosylated with a ratio of 2:1.
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]

CD36 Rabbit pAb - Additional Information

Gene ID 12491

Other Names

Platelet glycoprotein 4, Glycoprotein IIb, GPIIb, PAS IV, PAS-4, Platelet glycoprotein IV, GPIV, CD36, Cd36

Target/Specificity

Predominant in heart, intestine, spleen, fat, skeletal muscle, lower in testes.

Dilution

WB ~ 1:1000
IHC-P ~ N/A
IHC-F ~ N/A
IF ~ 1:50 ~ 200

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

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.

CD36 Rabbit pAb - Protein Information

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-chain fatty acids and bacterial diacylated lipopeptides (PubMed: [7685021](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/19847289), PubMed: [20037584](http://www.uniprot.org/citations/20037584), PubMed: [23395392](http://www.uniprot.org/citations/23395392)). Binds long-chain fatty acids and facilitates their transport into cells, thus participating in muscle lipid utilization, adipose energy storage, and gut fat absorption (PubMed: [30605677](http://www.uniprot.org/citations/30605677)). Mechanistically, binding of fatty acids activates downstream kinase LYN, which phosphorylates the palmitoyltransferase ZDHHC5 and inactivates it, resulting in the subsequent depalmitoylation of CD36 and caveolar endocytosis (By similarity). 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 angiogenic 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 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)

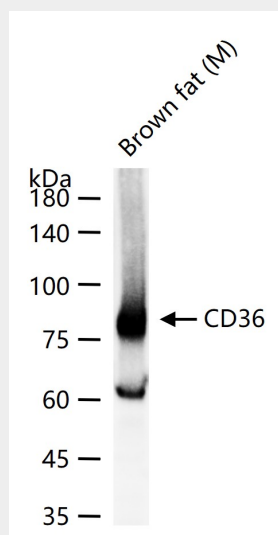
CD36 Rabbit pAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

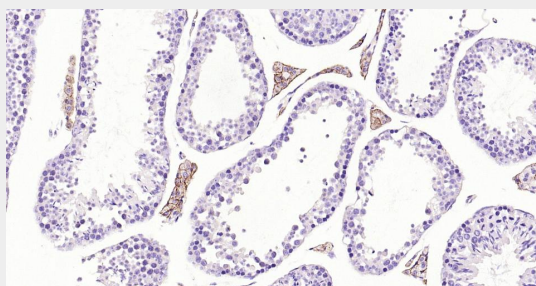
- [Western Blot](#)
- [Blocking Peptides](#)

- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

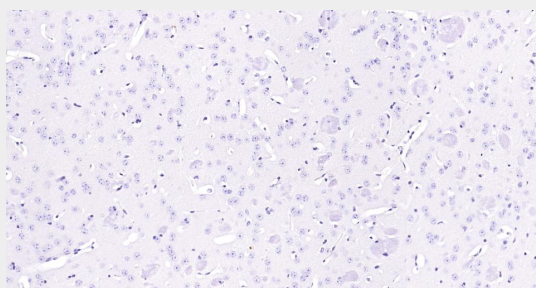
CD36 Rabbit pAb - Images



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.

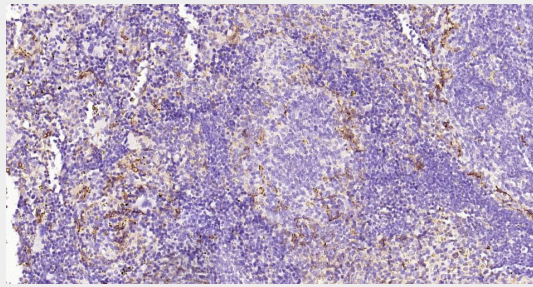


Paraformaldehyde-fixed, paraffin embedded Mouse Testis; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with CD36 Polyclonal Antibody, Unconjugated (AP94795) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010)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

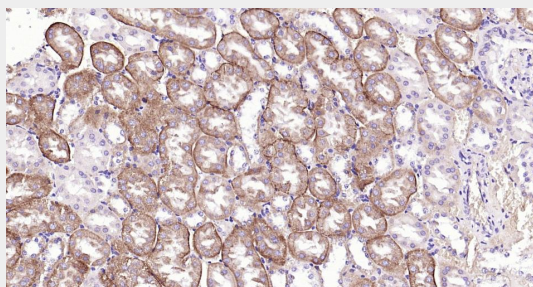


(Negative control) Paraformaldehyde-fixed, paraffin embedded Mouse Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with CD36

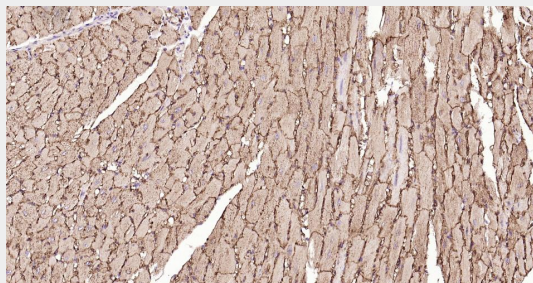
Polyclonal Antibody, Unconjugated (AP94795) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.



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.



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 conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Mouse Heart; 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.

CD36 Rabbit pAb - Background

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