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

Anti-CD36/SR-B3 Antibody

Catalog # ABO12062

Product Information

Application	WB, IHC-P
Primary Accession	P16671
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Platelet glycoprotein 4(CD36) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	948
Other Names	Platelet glycoprotein 4, Fatty acid translocase, FAT, Glycoprotein IIIb, GPIIIB, Leukocyte differentiation antigen CD36, PAS IV, PAS-4, Platelet collagen receptor, Platelet glycoprotein IV, GPIV, Thrombospondin receptor, CD36, CD36, GP3B, GP4
Calculated MW	53053
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Cell membrane; Multi-pass membrane protein. Upon ligand-binding, internalized through dynamin-dependent endocytosis. .
Source	Eukaryota
Protein Name	Platelet glycoprotein 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human CD36 (31-66aa DLLIQKTIKKQVVLEEGTIAFKNWVKTGTEVYRQFW), different from the related mouse sequence by six amino acids, and from the related rat sequence by four amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the CD36 family.

Protein Information

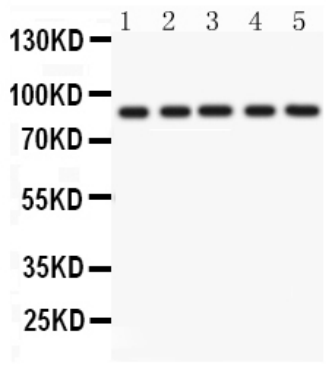
Name	CD36
Synonyms	GP3B, GP4
Function	Multifunctional glycoprotein that acts as a receptor for a broad range of ligands. Ligands can be of proteinaceous nature like thrombospondin, fibronectin, collagen or amyloid-beta as well as of lipidic nature such as oxidized low-density lipoprotein (oxLDL), anionic phospholipids, long- and very long-chain fatty acids and bacterial diacylated lipopeptides. 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). 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 (By similarity) (PubMed:18353783, PubMed:21395585, PubMed:21610069). 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:18753675). Involved in oral fat perception and preferences (PubMed:22240721, PubMed:25822988). 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). 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 (By similarity). Important factor in both ventromedial hypothalamus neuronal sensing of long-chain fatty acid and the regulation of energy and glucose homeostasis (By similarity). Receptor for thrombospondins, THBS1 and THBS2, mediating their antiangiogenic effects (By similarity). Involved in inducing apoptosis in podocytes in response to elevated free fatty acids, acting together with THBS1 (By similarity). 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 (By similarity) (PubMed:20037584). 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:16880211).

Cellular Location	Cell membrane; Multi-pass membrane protein. Membrane raft. Golgi apparatus. Apical cell membrane {ECO:0000250|UniProtKB:Q08857}. Note=Upon ligand-binding, internalized through dynamin-dependent endocytosis.

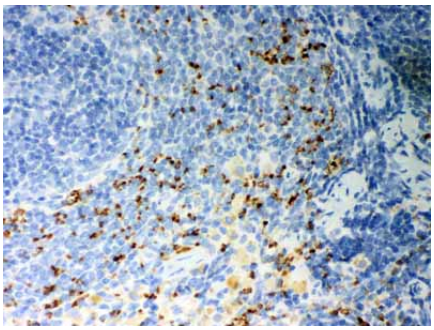
Background

CD36 (cluster of differentiation 36), also known as FAT (fatty acid translocase), FAT/CD36, (FAT)/CD36, SCARB3, GP88, glycoprotein IV (gpIV), and glycoprotein IIIb (gpIIIb), is anintegral membrane protein found on the surface of many cell types in vertebrate animals. CD36 is a member of the class B scavenger receptor family of cell surface proteins. It is mapped to 7q21.11. And CD36 binds many ligands including collagen, thrombospondin, erythrocytes parasitized with Plasmodium falciparum, oxidized low density lipoprotein, native lipoproteins, oxidized phospholipids, and long-chain fatty acids. In addition, CD36 function in long-chain fatty acid uptake and signaling can be irreversibly inhibited by sulfo-N-succinimidyl oleate (SSO), which binds lysine 164 within a hydrophobic pocked shared by several CD36 ligands, e.g. fatty acid and oxLDL.

Images



Anti- CD36 Picoband antibody, ABO12062, Western blottingAll lanes: Anti CD36 (ABO12062) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Rat Cardiac Muscle Tissue Lysate at 50ugLane 3: Mouse Liver Tissue Lysate at 50ugLane 4: Mouse Cardiac Muscle Tissue Lysate at 50ugLane 5: SMMC Whole Cell Lysate at 40ugPredicted bind size: 53KDObserved bind size: 88KD



Anti- CD36 Picoband antibody, ABO12062, IHC(P)IHC(P): Rat Spleen Tissue

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