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# CD36 (Platelet & Microvessel Marker) Antibody - With BSA and Azide

**Mouse Monoclonal Antibody [Clone 1E8.]**
**Catalog # AH12726**

## Specification

### CD36 (Platelet & Microvessel Marker) Antibody - With BSA and Azide - Product Information

| | |
|---|---|
| Application | **,3,4,** |
| Primary Accession | P16671 |
| Other Accession | 948, 120949 |
| Reactivity | **Human** |
| Host | **Mouse** |
| Clonality | **Monoclonal** |
| Isotype | **Mouse / IgG1, kappa** |
| Calculated MW | **80-90kDa KDa** |

### CD36 (Platelet & Microvessel Marker) Antibody - With BSA and Azide - 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

**Storage**
Store at 2 to 8°C.Antibody is stable for 24 months.

**Precautions**
CD36 (Platelet & Microvessel Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

### CD36 (Platelet & Microvessel Marker) Antibody - With BSA and Azide - 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-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-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:<a href="http://www.uniprot.org/citations/18353783" target="_blank">18353783</a>, PubMed:<a href="http://www.uniprot.org/citations/21610069" target="_blank">21610069</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/32958780" target="_blank">32958780</a>). 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:<a href="http://www.uniprot.org/citations/18753675" target="_blank">18753675</a>). Involved in oral fat perception and preferences (PubMed:<a href="http://www.uniprot.org/citations/22240721" target="_blank">22240721</a>, PubMed:<a href="http://www.uniprot.org/citations/25822988" target="_blank">25822988</a>). 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:<a href="http://www.uniprot.org/citations/20037584" target="_blank">20037584</a>). 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:<a href="http://www.uniprot.org/citations/16880211" target="_blank">16880211</a>).

**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.

## CD36 (Platelet & Microvessel Marker) Antibody - With BSA and Azide - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## CD36 (Platelet & Microvessel Marker) Antibody - With BSA and Azide - Images

## CD36 (Platelet & Microvessel Marker) Antibody - With BSA and Azide - Background

Recognizes a protein of 80kDa-90kDa, identified as CD36. It is expressed on platelets, monocytes and macrophages, microvascular endothelial cells, erythrocyte precursors, mammary epithelial cells, and some macrophage derived dendritic cells. CD36 acts as a receptor for thrombospondin (TSP), collagen types I, IV and V, P. falciparum malaria-infected erythrocytes, and sickle erythrocytes. It also functions as a scavenger receptor, mediating macrophage uptake of oxidized low-density lipoprotein (LDL) and recognition of apoptotic polymorphonuclear leukocytes (PMN). CD36 plays a role in platelet aggregation, macrophage foam cell development, inflammation, and the tissue ischemia observed in sickle cell disease and cerebral malaria. Note that 1-4% of Japanese and East Asia population lack CD36.

**CD36 (Platelet & Microvessel Marker) Antibody - With BSA and Azide - References**

Stomski FC; Gani JS; Bates RC; Burns GF. Adhesion to thrombospondin by human embryonic fibroblasts is mediated by multiple receptors and includes a role for glycoprotein 88 (CD36). Experimental Cell Research, 1992, 198(1):85-92. | Biggs BA; Gooze L; Wycherley K; Wilkinson D; Boyd AW; Forsyth KP; Edelman L; Brown GV; Leech JH. Knob-independent cytoadherence of Plasmodium falciparum to the leukocyte differentiation antigen CD36. Journal of Experimental Medicine, 1990, 171(6):1883-92