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Antibodies to Cluster of Differentiation 36 (CD36)

Cluster of Differentiation 36 antibodies. Catalog # CD36-101AP, P-CD36 and PC-CD36.

Accession # *NP_001120916* and Alternate Nomenclature: *Scavenger receptor class B, member 3; cluster determinant 36; glycoprotein IIIb; PAS-4 protein*

Cluster of Differentiation (CD36) is a cell-surface, integral membrane glycoprotein; it is a member of the class B scavenger receptor family of cell surface proteins (1). It is located on chromosome 7q11.2 (2). CD36 acts as a receptor for the extracellular matrix glycoproteins thrombospondin and collagen types I and IV, mediates some of the adhesive properties of the erythrocytes parasitized with *plasmodium falciparum* to the postcapillary venular endothelium, is involved in the transport of long-chain fatty acids, in the binding to oxidized low density lipoprotein and in signal transduction. It also interacts with the platelet-agglutinating protein p37, causing platelet aggregation (3). Recently it was discovered that CD36 has a clear role in Alzheimer's disease, heart disease, diabetes, atherosclerosis, arterial hypertension, cardiomyopathy, taste, dietary fat processing in the intestine, glucose intolerance and in fatty acid and glucose metabolism.

CD36 expression is induced during the differentiation of some cell types such as during the differentiation of preadipocytes to adipocytes, promegakaryocytes to platelets, and promonocytes to monocytes and macrophages. However, it practically disappears during the differentiation of erythroblasts to erythrocytes. Its expression levels also vary in some myeloproliferative disorders, therefore, expression of CD36 gene is subjected to developmental and tissue-specific regulation (4). CD36 expression is restricted to platelets, monocytes, some endothelial cells, mammary epithelial cells, adipocytes, activated keratinocytes, erythrocytes and some tumor cell lines (3, 5). CD36 is approximately a 53kDa protein (472 amino acids), however, it is extensively glycosylated and has an apparent molecular weight of 88kDa (6).

The CD36-selective antibodies were generated against purified cluster of differentiation 36 (CD36) protein. CD36 -antibodies are affinity purified over immobilized antigen based chromatography, and the purified immunoglobulins are stabilized in antibody stabilization buffer. FabGennix Int. Inc., will also provide limited quantities of antigenic blocking protein for CD36 -101AP antibody. Antibodies to CD36 (CD36 -101AP) will label ~88kDa protein in Western blot positive control samples for CD36 and several other tissues. FabGennix Inc. will also conjugate antibodies with secondary enzymes (alk-Pase or HRP) or fluorescent probes upon request at nominal cost.

Catalog #	Host Species	Nature	Cross reactivity	Quantity	Volume
CD36-101 AP	Rabbit	Affinity purified CD36 antibodies	H, others n.d	100 ug	200ul
FITC- CD36	Rabbit	FITC-conjugated CD36 antibody	H. others n.d	100ug	200ul
P- CD36	n/a	Antigenic blocking peptide for CD36 -101AP	n/a	250 ug	100ul
PC- CD36	n/a	Western blotting positive control for CD36	n/a	For 5 appl	Inquire

R = rat; M = mouse; H = human; C = chicken; monk = monkey; * not all variants are labeled equally

- Immunogen:** Synthetic peptides corresponding to unique epitope on CD36. The peptide sequence (CRS IYAVFE SDV NLK GIP VYR) was unique to CD36. The CD36 peptide was covalently modified post-synthetically covalently modified to achieve desired antigenicity.
- Concentration:** CD36 -101AP: IgG concentration 0.64-0.72 mg/ml in antibody stabilization buffer.
- Applications:** Antibody CD36 -101AP is ideal for WB and ELISA applications, other applications have not been tested. These antibodies do not cross react to human lactoferrin, bovine lactoferrin or bovine serum albumin. The species cross reactivity for these antibodies have not been examined fully. The dilutions for this antibody is for reference only, investigators are expected to determine the optimal conditions for specific assay. WB: > 1:500; IMM & i.p pull-down assays: n.d; IHC n.d. ELISA <1:10,000. Application of this antibody in protocols not listed here does not necessarily exclude its use in such procedures.
- Reactivity:** This antibody detects a single band of approximately 88kDa in PC- CD36 samples. The antibody does not cross react to....
- Protocols:** Standard protocol for various applications (WB; IMM and IHC) of this antibody is provided with the product specification sheet, however, FabGennix Inc., strongly recommends investigators to optimize conditions for use of this antibody in their laboratories.
- Form/Storage:** The antiserum is supplied in antibody stabilization buffer. The affinity-purified antibodies are isolated on immobilized antigen-affinity column and supplied as stabilized product. Store at -20°C for long-term storage. FabGennix Inc. does not recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer (Cat # DiluOBuffer). Working solutions of antibodies in DiluOBuffer should be filtered through 0.45um filter after every use for long-term storage.

Notes: Briefly centrifuge to collect liquid, heat or boil PC-CD36 tube for 1-2 minutes to dissolve any precipitate before use. This product is "ready-to-use" for electrophoresis. After thawing store at room temperature, Repeated freezing and thawing may result in appearance of higher MW immunoreactive bands.

New Reagents: Now you can recycle your western blots (nitrocellulose, supported membranes and PVDF membranes) by using our StripOBuffer (Cat FGI-1989). Each stripping is guaranteed to give better signal (up to 8 stripping). No strong pungent smell of reducing agents or heating required. Block in 5X diluOBuffer and you are ready for blotting with a new antibody

References:

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* For users who may require large amounts of CD36-101AP, please enquire about bulk material discounts.
This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

090408-0020SF100 ge02-rev.10.00

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