Human CD36/SR-B3 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1955

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD36 in direct ELISAs and Western blots. In direct ELISAs, less than 20% cross-reactivity with recombinant mouse CD36 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human CD36 Gly30-Asn439 Accession # P16671
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

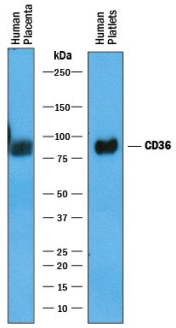
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below

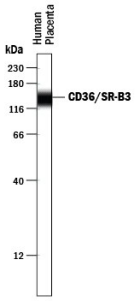
DATA

Western Blot



Detection of Human CD36/SR-B3 by Western Blot. Western blot shows lysates of human placenta tissue and human platelets. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human CD36/SR-B3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1955) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for CD36/SR-B3 at approximately 85-90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human CD36/SR-B3 by Simple Western™. Simple Western lane view shows lysates of human placenta tissue, loaded at 0.2 mg/mL. A specific band was detected for CD36/SR-B3 at approximately 140 kDa (as indicated) using 10 µg/mL of Goat Anti-Human CD36/SR-B3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1955) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

CD36, alternatively known as platelet membrane glycoprotein IV (GPIV), GPIIIb, thrombospondin receptor, collagen receptor, fatty acid translocase (FAT), and scavenger receptor class B, member 3 (SR-B3), is an integral membrane glycoprotein that has multiple physiological functions (1). It is broadly expressed on a variety of cell types including microvascular endothelium, adipocytes, skeletal muscle, epithelial cells of the retina, breast, and intestine, smooth muscle cells, erythroid precursors, platelets, megakaryocytes, dendritic cells, monocytes/macrophages, and microglia (1, 2). As a member of the scavenger receptor family, CD36 is a multiligand pattern recognition receptor that interacts with a large number of structurally dissimilar ligands, including long chain fatty acid (LCFA), advanced glycation end products (AGE), thrombospondin-1, oxidized low-density lipoproteins (oxLDLs), high density lipoprotein (HDL), phosphatidylserine, apoptotic cells, β-amyloid fibrils (*f*Aβ), collagens I and IV, and *Plasmodium falciparum*-infected erythrocytes (3). CD36 is required for the anti-angiogenic effects of thrombospondin-1 in the corneal neovascularization assay (4). It plays a role in lipid metabolism and has been identified as a fatty acid translocase necessary for the binding and transport of LCFA in cells and tissues (5). CD36 has been implicated in the clearance of apoptotic cells and cell debris and has also been shown to mediate the internalization and degradation of a variety of its ligands such as oxLDL, AGE and *f*Aβ (3). Upon ligand binding, CD36 transduces signals that mediate a wide range of pro-inflammatory cellular responses (2). CD36 plays a significant role in the initiation and pathogenesis of chronic inflammatory diseases such as Alzheimer's disease and atherosclerosis (2, 3). The human CD36 gene encodes a single-chain 472 amino acid residue protein containing both an N- and a C-terminal cytoplasmic tail and an extracellular loop.

References:

1. Febbraio, M. *et al.* (2001) J. Clin. Invest. **108**:785.
2. Khoury, J. *et al.* (2003) J. Exp. Med. **197**:1657.
3. Husemann, J. *et al.* (2002) Glia **40**:195.
4. Armstrong, L and P. Bornstein (2003) Matrix. Biol. **22**:63.
5. Febbraio M. *et al.* (1999) J. Biol. Chem. **274**:19055.

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