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Human CD36/SR-B3 Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF1955

RDsystems

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	<i>S. frugiperda</i> insect ovarian cell line <i>Sf</i> 21-derived recombinant human CD36 Gly30-Asn439 Accession # P16671	
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	10-50 μg/mL	See Below	

DATA



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 # 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.



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 HRPconjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system



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R SYSTEMS

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

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 (fAβ), 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 fAβ (3). Upon ligand binding, CD36 transduces signals that mediate a wide range of pro-inflammatory cellular responses (2). 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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