

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CD36/SR-B3 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse CD36 is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 255606
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human CD36/SR-B3 Gly30-Asn439 Accession # P16671
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	HepG2 human hepatocellular carcinoma cell line

#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

CD36, alternatively known as platelet membrane glycoprotein IV (GPIV), GPIIb, 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 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 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.