Mouse CD36/SR-B3 Antibody

Monoclonal Rat IgG_1 Clone # 324205

Catalog Number: MAB25191

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CD36/SR-B3 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human CD36 is observed.
Source	Monoclonal Rat IgG_1 Clone # 324205
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse CD36/SR-B3 Gly30-Lys439 Accession # Q08857
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 as a 0.2 μm filtered solution in PBS.

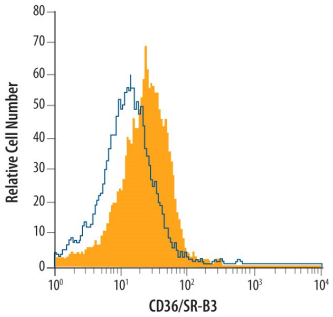
APPLICATIONS

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
Flow Cytometry	2.5 µg/10^6 cells	See Below
Immunohistochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

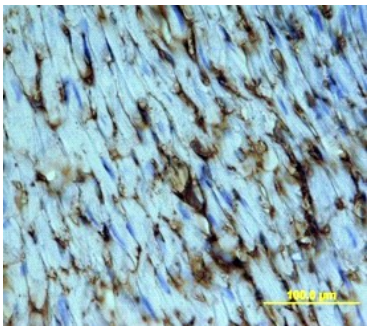
DATA

Flow Cytometry



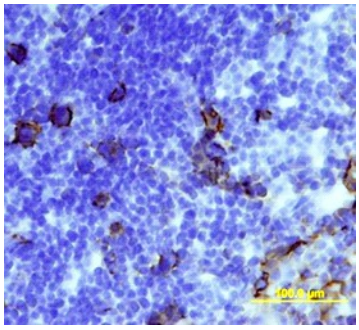
Detection of CD36/SR-B3 in J774A.1 Mouse Cell Line by Flow Cytometry. J774A.1 mouse reticulum cell sarcoma macrophage cell line was stained with Rat Anti-Mouse CD36/SR-B3 Monoclonal Antibody (Catalog # MAB25191, filled histogram) or isotype control antibody (Catalog # MAB005, open histogram), followed by Allophycocyanin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0113).

Immunohistochemistry



CD36/SR-B3 in Mouse Heart. CD36/SR-B3 was detected in immersion fixed frozen sections of mouse heart using Rat Anti-Mouse CD36/SR-B3 Monoclonal Antibody (Catalog # MAB25191) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Rat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS017) and counterstained with hematoxylin (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

Immunohistochemistry



CD36/SR-B3 in Mouse Thymus. CD36/SR-B3 was detected in immersion fixed frozen sections of mouse thymus using Rat Anti-Mouse CD36/SR-B3 Monoclonal Antibody (Catalog # MAB25191) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Rat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS017) and counterstained with hematoxylin (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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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Mouse CD36/SR-B3 Antibody

Monoclonal Rat IgG_1 Clone # 324205

Catalog Number: MAB25191

BACKGROUND

CD36 (alternatively known as platelet membrane glycoprotein IV (GPIV), thrombospondin receptor, fatty acid translocase (FAT), and scavenger receptor class B, member 3 (SR-B3)) is an 88 kDa, integral membrane glycoprotein that belongs to the class B scavenger receptor family (1, 2). The molecule is described as being ditopic, with two transmembrane segments connected by an extracellular loop (3). Mouse CD36 is synthesized as a 472 amino acid (aa) protein that contains a 6 aa N-terminal cytoplasmic domain, a 22 aa N-terminal transmembrane segment, a 420 aa extracellular "loop", a 22 aa C-terminal transmembrane segment, and a 9 aa C-terminal cytoplasmic tail (4). Both cytoplasmic tails are palmitoylated, with the C-terminal tail involved in oxidized LDL binding (5, 6). With respect to the extracellular loop, the N-terminal region is believed to bind both thrombospondin-1 and Plasmodium-infected erythrocytes. Other ligands for CD36 include long-chain fatty acids, collagen, phospholipids and apoptotic cells (1). The extracellular loop of mouse CD36 shares 94%, 92%, 84% and 84% aa sequence identity with the extracellular loops of rat, hamster, human and bovine CD36, respectively. Cells known to express CD36 include capillary endothelium, adipocytes, skeletal muscle cells, intestinal epithelium, smooth muscle cells and hematopoietic cells such as RBC's, platelets and monocytes (1). On the surface of cells, CD36 is suggested to exist as a dimer in response to ligation (7). CD36 is reported to regulate fatty uptake, act as an angiogenic with TSP-1, and participate in the clearance of apoptotic phagocytes (1, 8).

References:

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