

10-3544: Monoclonal Antibody to human CD36(Discontinued)

Clonality :	Monoclonal
Clone Name :	FA6-152
Application :	FACS,IF
Reactivity :	Human
Gene :	CD36
Gene ID :	948
Uniprot ID :	P16671
Alternative Name :	GP3B, GP4, Fatty acid translocase, Glycoprotein IIIb, Leukocyte differentiation antigen CD36, PAS IV, PAS-4,
Isotype :	Mouse IgG1
Immunogen Information :	20-Weeks-old fetal erythrocytes

Description

Monoclonal antibody FA6-152 recognizes human CD36 (88-kDa), a cell surface class B scavenger receptor, also known as thrombospondin receptor CD36 is a heavily N-glycosylated transmembrane protein of ~88 kDa with two short intracellular domains and a large extracellular domain. The protein is sensitive for neuroaminidase, resulting in a shift from 88 to 85 kDa. CD36 is expressed on platelets, mature monocytes and macrophages, microvascular endothelial cells, mammary endothelial cells, during stages of erythroid cell development and on some macrophage derived dendritic cells. The antibody recognizes adult and fetal monocytes, platelets and reticulocytes, but doesn't stain lymphocytes and granulocytes. Reactivity has also been found in small intestine, kidney, liver and thyroid. CD36 expression is primarily controlled by the transcription heterodimer PPAR γ -RXR (peroxisome proliferator-activated receptor-g-retinoid-X-receptor). CD36 is preferentially found within lipid rafts, which facilitates its association with receptors, signaling and adaptor molecules. It is a receptor and transporter of oxidized lipids and long chain fatty acids. CD36 has been implicated in many biological processes including angiogenesis, phagocytosis, inflammation, and lipid and glucose metabolism. Several in vivo models support the role of the thrombospondin / CD36 system in angiogenesis and tumor growth. An important role for CD36 has been found in Malaria as major receptor for *P. falciparum*-infected red blood cells. CD36 is associated with Src-family kinases and with the integrins α 3 β 1 and α 6 β 1. Recently, CD36 has been identified as a protein that is required for toll like receptor (TLR2) recognition of di-acylated bacterial lipopeptides and lipoteichoic acid⁴. Furthermore, CD36 has been shown to function as phagocytic receptor for apoptotic cells. Many different ligands have been reported to interact with CD36, suggesting that CD36 could recognize a structure-based domain rather than specific contact residues. Monoclonal antibody FA6-152 blocks the biological activity of CD36 by blocking collagen/thrombospondin binding. The antibody agglutinates fetal but not adult erythrocytes.

Product Info

Amount :	Monoclonal Antibody to human CD36(Discontinued) / 500 μ g
Content :	0.5 mg 0.2 μ m filtered protein G purified antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.
Storage condition :	Product should be stored at 4 $^{\circ}$ C. Under recommended storage conditions, product is stable for at least one year. The exact expiry date is indicated on the label.

Application Note

IHC-F: Tissue embedded in tissue-tek (for instance aortic tissue) followed by freezing in liquid nitrogen; 7-8 μ m sections; air-dried; acetone-fixed; 10 % NGS as block . FACS Analysis: Antibody FA6-152 stains the extracellular domain of CD36. Unfixed

cells; 2 µg per 100,000 cells. Positive on granulocytes. Functional studies: Platelet aggregation and secretion was induced by; 1 µg/ml antibody. Immuno Assay: 10 µg/ml antibody as coat diluted in Tris-buffered saline; 100 µl/well; o/n at RT. Immuno Fluorescence: unfixed cells were incubated for 30 minutes at 4 °C followed by a secondary FITC polyclonal antibody; one-minute methanol fixation before analysis. Immuno Precipitation: 88 kDa sialoglycoprotein in platelets; 85 and 88 kDa in HEL cells. 10 µg antibody/200 µg protein. Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

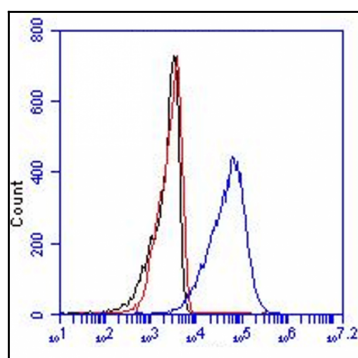


Figure-1: Flow cytometry: detection of CD36 in THP-1 cells. Red, black and blue line represent the isotype control, cells only and 10-3544 with a Concentration of 10 µg/ml, respectively.