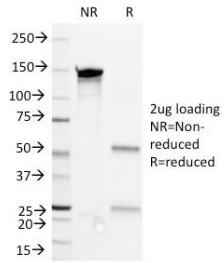
CD36 Antibody [clone 1E8.] (V3004)

Catalog No.	Formulation	Size
V3004-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3004-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3004SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (5)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	1E8.
Purity	Protein G affinity chromatography
UniProt	P16671
Localization	Cell surface
Applications	Functional Studies (order BSA/sodium Azide-free Format) : Flow Cytometry : 0.5-1ug/million cells Immunofluorescence : 0.5-1ug/ml
Limitations	This CD36 antibody is available for research use only.



SDS-PAGE Analysis of Purified, BSA-Free CD36 Antibody (clone 1E8). Confirmation of Integrity and Purity of the Antibody.

Description

CD36 antibody (clone 1E8) detects CD36, an integral membrane glycoprotein involved in lipid metabolism, immune response, and cell adhesion. The UniProt recommended name is Platelet glycoprotein 4 (CD36). This multifunctional receptor binds long-chain fatty acids, oxidized low-density lipoprotein (oxLDL), thrombospondin, and collagen. CD36 is widely expressed on platelets, monocytes, macrophages, microvascular endothelial cells, adipocytes, and certain epithelial tissues, where it plays a key role in lipid uptake and inflammatory signaling.

Structurally, CD36 is a heavily glycosylated transmembrane protein of approximately 88 kDa, consisting of two short cytoplasmic tails flanking a large extracellular domain that forms the ligand-binding site. The protein is palmitoylated on cysteine residues near both membrane-spanning regions, anchoring it into lipid rafts and facilitating receptor clustering. CD36 interacts with integrins, toll-like receptors, and Src-family kinases to mediate downstream signaling, linking metabolic sensing with immune and vascular responses.

The CD36 gene is located on chromosome 7q21.11 and produces multiple isoforms through alternative promoter usage and tissue-specific transcriptional control. Its expression is regulated by peroxisome proliferator-activated receptors (PPARs), liver X receptor (LXR), and sterol regulatory elements, enabling CD36 to serve as a lipid sensor that coordinates cellular uptake of fatty acids and cholesterol derivatives. In macrophages, CD36 functions as a scavenger receptor that internalizes oxidized lipoproteins, contributing to foam cell formation and atherosclerotic plaque development. In platelets and endothelial cells, CD36 participates in thrombospondin-dependent signaling that modulates angiogenesis and vascular tone.

CD36 antibody (clone 1E8) recognizes an extracellular epitope of CD36 and is suitable for detecting surface and total protein expression in relevant experimental systems. It can be used to assess CD36 abundance in tissues or cultured cells involved in lipid metabolism, vascular biology, or immune regulation. This antibody aids in characterizing metabolic and inflammatory pathways linked to atherosclerosis, obesity, diabetes, and tumor microenvironment remodeling, where CD36 expression is frequently altered.

Beyond lipid handling, CD36 influences glucose metabolism and innate immunity. It acts as a co-receptor with TLR4 and TLR6 to trigger inflammatory signaling in response to oxidized lipids and amyloid-beta aggregates. In the liver and muscle, CD36 contributes to fatty acid uptake and energy balance. Dysregulation of CD36 has been associated with metabolic syndrome, insulin resistance, non-alcoholic fatty liver disease, and certain cancers. Its cell surface localization and multifunctional role make it a target of interest in cardiovascular and metabolic research.

CD36 antibody (clone 1E8) is suitable for detecting CD36 expression in lipid-rich or metabolically active tissues. It enables studies of receptor distribution, trafficking, and ligand engagement under physiological and pathological conditions. NSJ Bioreagents provides CD36 antibody (clone 1E8) validated for use in relevant research applications supporting studies in lipid metabolism, immunology, and vascular biology.

Application Notes

Optimal dilution of the CD36 antibody should be determined by the researcher.

Immunogen

Human CD36 from platelets was used as the immunogen for the CD36 antibody.

Storage

Store the CD36 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).