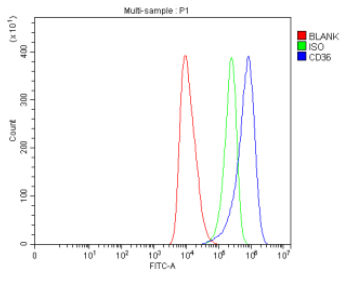
CD36 Antibody / Platelet glycoprotein 4 (FY13262)

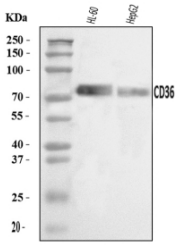
Catalog No.	Formulation	Size
FY13262	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P16671
Applications	Flow Cytometry : 1-3ug/million cells Western Blot : 0.25-0.5ug/ml
Limitations	This CD36 antibody is available for research use only.



Flow Cytometry analysis of human HEL cells using anti-CD36 antibody. Overlay histogram showing HEL cells stained with (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD36 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Western blot analysis of CD36 using anti-CD36 antibody. Lane 1: human HL-60 whole cell lysates, Lane 2: human HepG2 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CD36 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A predominant band is detected between an approximately 70 and 80 kDa in both samples, running well above the predicted ~53 kDa mass but consistent with the highly N-glycosylated mature form of the CD36 scavenger receptor reported in the literature, being observed at up to ~90 kDa.

Description

CD36 antibody detects Platelet glycoprotein 4, a multifunctional membrane receptor involved in lipid metabolism, angiogenesis, inflammation, and immune regulation. The UniProt recommended name is Platelet glycoprotein 4 (CD36). This scavenger receptor binds a wide range of ligands, including oxidized low-density lipoproteins (oxLDL), long-chain fatty acids, thrombospondin, and collagen, linking metabolic and inflammatory signaling pathways.

Functionally, CD36 antibody identifies a 472-amino-acid glycoprotein expressed on the plasma membrane of platelets, macrophages, adipocytes, and endothelial cells. CD36 mediates fatty acid uptake and translocation across membranes, contributing to energy homeostasis and lipid storage. It also functions as a pattern recognition receptor in innate immunity, detecting oxidized lipids and apoptotic cells. Engagement of CD36 triggers signaling cascades involving Src-family kinases, MAPKs, and NF-kB, influencing inflammation, oxidative stress, and phagocytosis.

The CD36 gene is located on chromosome 7q21.11 and is expressed in a broad range of tissues, including heart, skeletal muscle, liver, and immune cells. Expression is regulated by transcription factors such as PPARgamma and LXR, which respond to lipid availability and metabolic stress. CD36 plays a central role in coordinating cellular responses to lipid signals and oxidative modification.

Pathologically, CD36 dysregulation contributes to atherosclerosis, insulin resistance, and metabolic syndrome. Overexpression in macrophages promotes foam cell formation and plaque development, while impaired expression leads to altered lipid uptake and cardiac dysfunction. In cancer, CD36 enhances metastatic potential by supporting lipid utilization in tumor cells. Research using CD36 antibody supports studies in lipid biology, cardiovascular disease, and metabolic signaling.

CD36 antibody is validated for western blotting, flow cytometry, and immunohistochemistry to detect cell surface receptors. NSJ Bioreagents provides CD36 antibody reagents optimized for research in lipid transport, oxidative stress, and immune modulation.

Structurally, Platelet glycoprotein 4 consists of two transmembrane domains, a large extracellular glycosylated loop, and short cytoplasmic tails that mediate signal transduction. The receptor interacts with caveolin and other membrane components to form lipid raft-associated complexes. This antibody enables investigation of CD36's function in lipid metabolism, inflammation, and vascular biology.

Application Notes

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

Immunogen

E.coli-derived human CD36 recombinant protein (Position: K233-N439) was used as the immunogen for the CD36 antibody.

Storage

After reconstitution, the CD36 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.