Anti-CD36 Antibody [PSH18-47] - BSA and Azide free

HA751671

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 53 kDa
Clone number:	PSH18-47

Description: CD36 (cluster of differentiation 36), also known as platelet glycoprotein 4, fatty acid translocase (FAT), scavenger receptor class B member 3 (SCARB3), and glycoproteins 88 (GP88), IIIb (GPIIIB), or IV (GPIV) is a protein that in humans is encoded by the CD36 gene. The CD36 antigen is an integral membrane protein found on the surface of many cell types in vertebrate animals. It imports fatty acids inside cells and is a member of the class B scavenger receptor family of cell surface proteins. CD36 binds many ligands including collagen, thrombospondin, erythrocytes parasitized with Plasmodium falciparum, oxidized low density lipoprotein, native lipoproteins, oxidized phospholipids, and long-chain fatty acids. Work in genetically modified rodents suggest a role for CD36 in fatty acid metabolism, heart disease, taste, and dietary fat processing in the intestine. It may be involved in glucose intolerance, atherosclerosis, arterial hypertension, diabetes, cardiomyopathy, Alzheimer's disease and various cancers, mostly of epithelial origin (breast, prostate, ovary, and colon) and also for hepatic carcinoma and gliomas.

Positive control: U-937 cell lysate, Jurkat cell lysate, Mouse white adipose tissue lysate, Mouse brown adipose tissue lysate, Rat white adipose tissue lysate, Rat brown adipose tissue lysate, Jurkat, human spleen tissue, mouse white adipose tissue, rat white adipose tissue.

Subcellular location: Cell membrane, Membrane raft, Golgi apparatus, Apical cell membrane.

Database links: SwissProt: P16671 Human | Q08857 Mouse | Q07969 Rat

Recommended Dilutions:

WB	1:2,000
IF-Cell	1:1,000
IHC-P	1:1,000
FC	1:1,000

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

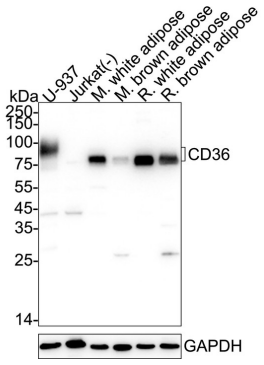

Fig1: Western blot analysis of CD36 on different lysates with Rabbit anti-CD36 antibody (HA751671) at 1/2,000 dilution.

Lane 1: U-937 cell lysate
Lane 2: Jurkat cell lysate (negative)
Lane 3: Mouse white adipose tissue lysate
Lane 4: Mouse brown adipose tissue lysate
Lane 5: Rat white adipose tissue lysate
Lane 6: Rat brown adipose tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 53 kDa
Observed band size: 75-90 kDa

Exposure time: 6 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA751671) at 1/2,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

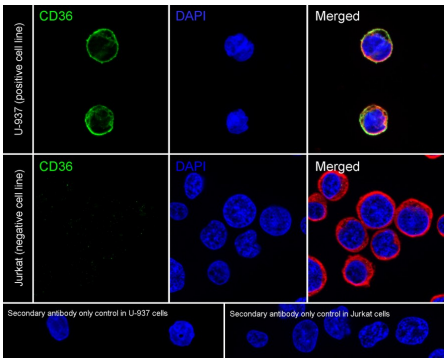

Fig2: Immunocytochemistry analysis of U-937 (positive) and Jurkat (negative) labeling CD36 with Rabbit anti-CD36 antibody (HA751671) at 1/1,000 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-CD36 antibody (HA751671) at 1/1,000 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

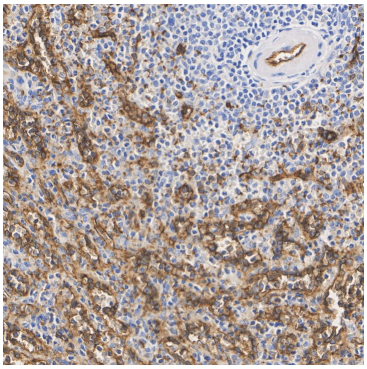

Fig3: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-CD36 antibody (HA751671) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA751671) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

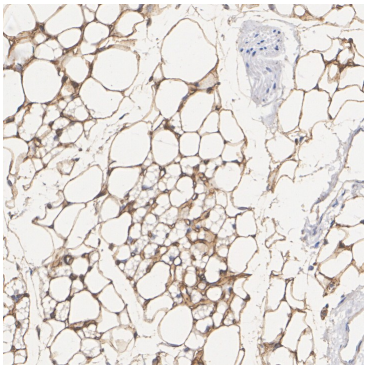

Fig4: Immunohistochemical analysis of paraffin-embedded mouse white adipose tissue with Rabbit anti-CD36 antibody (HA751671) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA751671) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

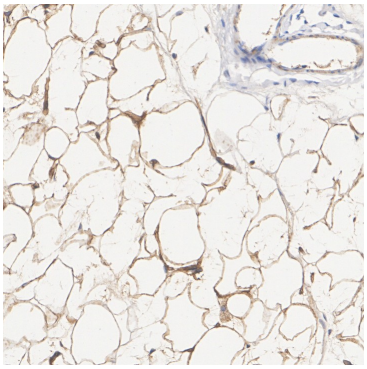

Fig5: Immunohistochemical analysis of paraffin-embedded rat white adipose tissue with Rabbit anti-CD36 antibody (HA751671) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA751671) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

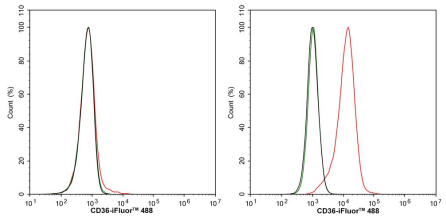

Fig6: Flow cytometric analysis of Jurkat (left, negative) and U-937 (right, positive) cells labeling CD36.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA751671, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Shu H et al. The role of CD36 in cardiovascular disease. Cardiovasc Res. 2022 Jan
2. Ma X et al. CD36-mediated ferroptosis dampens intratumoral CD8(+) T cell effector function and impairs their antitumor ability. Cell Metab. 2021 May