

Product Datasheet

CD36 Antibody - BSA Free **NB400-145**

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NB400-145

CD36 Antibody - BSA Free

Product Information

Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	110 kDa

Product Description

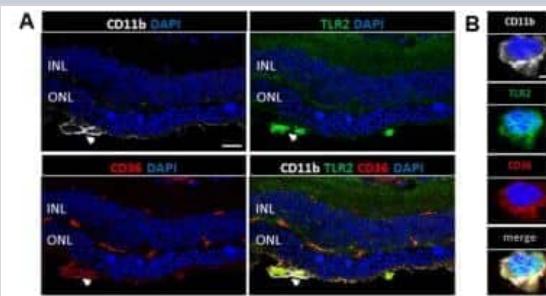
Description	Novus Biologicals Rabbit CD36 Antibody - BSA Free (NB400-145) is a polyclonal antibody validated for use in IHC, WB, Flow, ICC/IF and Simple Western. Anti-CD36 Antibody: Cited in 12 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	948
Gene Symbol	CD36
Species	Human, Mouse, Amphibian
Reactivity Notes	Amphibian reactivity reported in scientific literature (PMID: 31736973).
Marker	Endothelial Cell Marker
Immunogen	This CD36 Antibody was developed against a synthetic peptide mapping to a region of human CD36 between residues 300-400 [Uniprot# P16671]

Product Application Details

Applications	Western Blot, Simple Western, Flow Cytometry, Immunoblotting, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, SDS-Page
Recommended Dilutions	Western Blot 1:2000-1:10000, Simple Western 1:40, Flow Cytometry reported in scientific literature (PMID 32971872), Immunohistochemistry, Immunocytochemistry/ Immunofluorescence reported in scientific literature (PMID 27226602), Immunoblotting reported in scientific literature (PMID 31501473), SDS-Page reported in scientific literature (PMID 31501473)
Application Notes	In Western blot, a band is seen ~75-80 kDa. May see a very faint band ~130 kDa with a flash exposure and several bands with exposure times longer than 3 seconds. The theoretical molecular weight of CD36 is ~53 kDa. The difference in theoretical MW and actual MW as seen in Western blot is most likely due to the heavy glycosylation and palmitoylation of this protein.

Images

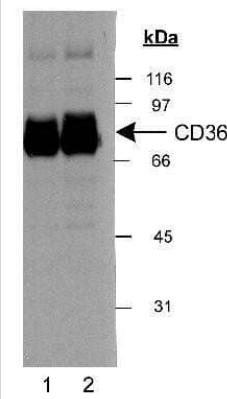
Immunohistochemistry: CD36 Antibody [NB400-145] - CD36 ligand disrupts TLR2-CD36 interaction modulated TLR2 heterodimer-signaling. (A) Confocal imaging of central retina cryosection stained with CD11b (white), CD36 (red), TLR2 (green), and DAPI (blue) from blue light-challenged WT mice. Scale bar = 25 um. (B) High magnification (3X) shows subretinal CD11b-positive cells (white) with the co-localisation of CD36 (red) and TLR2 (green). Scale bar = 5 um. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-019-49472-8>), licensed under a CC-BY license.



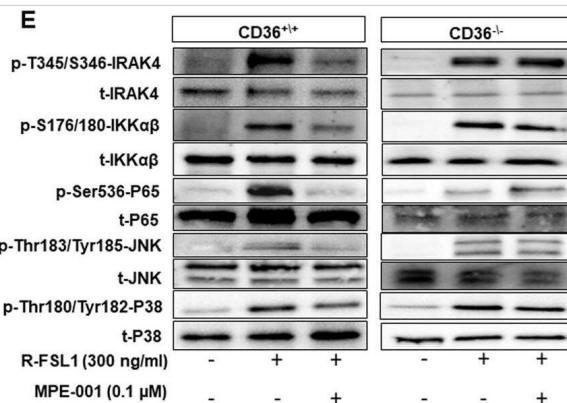
Simple Western: CD36 Antibody [NB400-145] - Image shows a specific band for CD36 in human adipose lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.

kDa
230
180
116
66
40
12

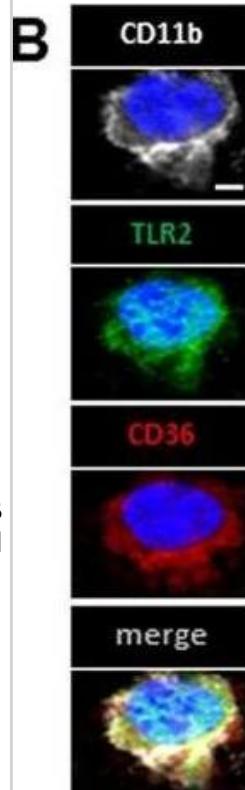
Western Blot: CD36 Antibody [NB400-145] - Detection of CD36 in human adipocyte extract (30 ug). Lane 1: 0.5 ug/ml NB 400-145; lane 2: 2 ug/ml NB 400-145. ECL: 3 second exposure.



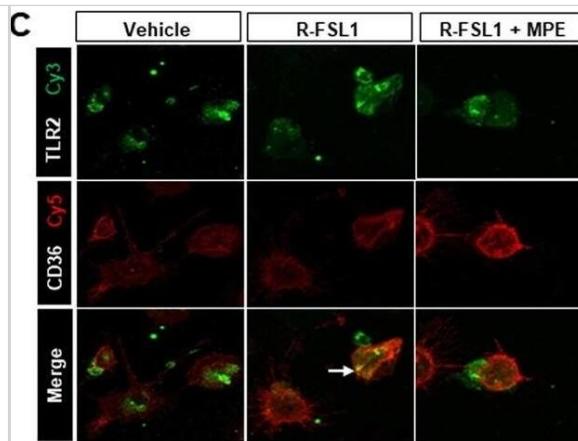
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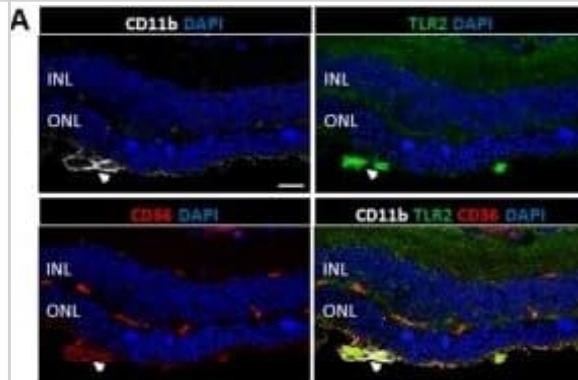
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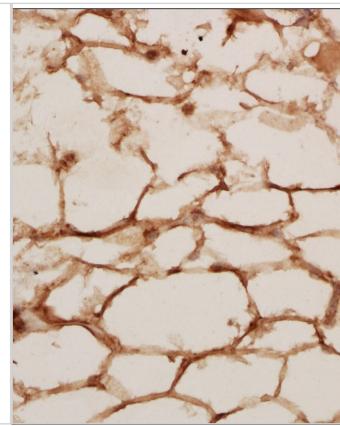
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Analysis of a FFPE tissue section of human adipose using 1:200 dilution of CD36 antibody (NB400-145). The staining was developed using HRP labeled anti-rabbit secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin.



Publications

Acosta-Gutiérrez S, Matias D, Avila-Olias M et al. A Multiscale Study of Phosphorylcholine Driven Cellular Phenotypic Targeting ACS Central Science 2022-07-27 [PMID: 35912343]

Zhang B, Huang R, Yang D et al. Combination of Colchicine and Ticagrelor Inhibits Carrageenan-Induced Thrombi in Mice Oxidative Medicine and Cellular Longevity 2022-01-17 [PMID: 35082966]

Haberl EM, Pohl R, Rein-Fischboeck L Et al. Accumulation of cholesterol, triglycerides and ceramides in hepatocellular carcinomas of diethylnitrosamine injected mice Lipids in health and disease 2021-10-10 [PMID: 34629057] (WB, Mouse)

Ghodsian N, Yeandle A, Gieseg SP Foam cell formation but not oxLDL cytotoxicity is inhibited by CD36 down regulation by the macrophage antioxidant 7,8-dihydronoopterin The international journal of biochemistry & cell biology 2021-01-06 [PMID: 33421634] (WB, Human)

Thomas RC, Kheder R, Alaridhee H et al Complement Properdin Regulates the Metabolo-Inflammatory Response to a High Fat Diet Medicina (Kaunas) 2020-09-25 [PMID: 32971872] (WB, FLOW, Mouse)

Details:

Citation using the Alexa Fluor 647 version of this antibody.

Enos N, Takenaka H, Scott S et al. Meningeal Foam Cells and Ependymal Cells in Axolotl Spinal Cord Regeneration Front Immunol. 2019-11-01 [PMID: 31736973] (ICC/IF, Amphibian)

Details:

Axolotl

Mellal K, Omri S, Mulumba M et al. Immunometabolic modulation of retinal inflammation by CD36 ligand Sci Rep 2019-09-09 [PMID: 31501473] (PAGE, IF, IB, Mouse, Human)

Yang X, Zhang W, Chen Y et al. Activation of PPARgamma and CD36 expression--the dual pathophysiological roles of progesterone. J. Biol. Chem. 2016-05-12 [PMID: 27226602] (WB, ICC/IF, Mouse)

Kriska T, Cepura C, Gauthier KM, Campbell WB. Role of macrophage PPAR-gamma in experimental hypertension. Am. J Physiol. Heart Circ. Physiol. 2014-01-01 [PMID: 24163073] (WB, Mouse)

Details:

CD36 antibody used for WB in mouse model of experimental hypertension. Fig. 3 - CD36 expression in peritoneal macrophages (PMs) and T cells of WT and Alox15-/- mice injected or not with thioglycollate; Fig. 4 - CD36 levels in PMs of WT mice that have been elicited with thioglycollate and received GW9662 treatment. Fig. 5 - CD36 expression in aorta, PM, and kidney of mice injected with thioglycollate.

Truong TQ, Aubin D, Falstrault L et al. SR-BI, CD36, and caveolin-1 contribute positively to cholesterol efflux in hepatic cells. Cell Biochem Funct 2010-08-01 [PMID: 20629037]

Wong BXW, Kyle RA, Croft KD et al. Modulation of Macrophage Fatty Acid Content and Composition by Exposure to Dyslipidemic Serum in Vitro. Lipids;46(4):371-80. 2011-04-01 [PMID: 21286835] (WB, Human)

Gieseg SP, Amit Z, Yang YT et al. Oxidant Production, oxLDL Uptake, and CD36 Levels in Human Monocyte-Derived Macrophages Are Downregulated by the Macrophage-Generated Antioxidant 7,8-Dihydronoopterin. Antioxid Redox Signal. 2010-11-15 [PMID: 20408759]

Procedures

Western Blot Protocol for CD36 Antibody (NB400-145)

Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 10-25 ug of total protein per lane.
2. Transfer proteins to PVDF membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain the membrane with Ponceau S (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot TBS -0.05% Tween 20 (TBST).
5. Block the membrane in 5% Non-fat milk in TBST (blocking buffer) for at least 1 hour.
6. Wash the membrane in TBST three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate overnight at 4C with gentle rocking.
8. Wash the membrane in TBST three times for 10 minutes each.
9. Incubate the membrane in diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) for 1 hour at room temperature.
10. Wash the blot in TBST three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturer's instructions.

Immunohistochemistry-Paraffin Protocol for CD36 Antibody (NB400-145)

Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer at all times).

Staining:

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.



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Products Related to NB400-145

NBL1-08939	CD36 Overexpression Lysate
NB400-145PEP	CD36 Antibody Blocking Peptide
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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