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.

www.novusbio.com technical@novusbio.com

Reviews: 1 Publications: 12

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
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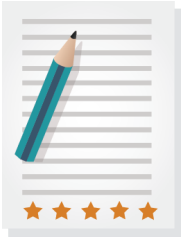
Updated 10/23/2024 v.20.1



NB400-145

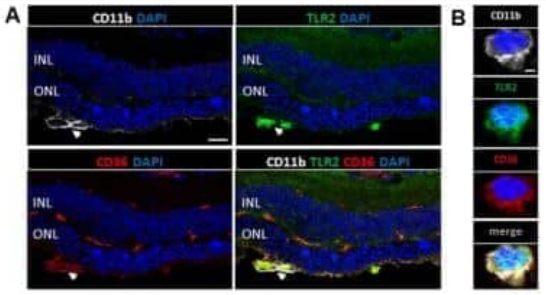
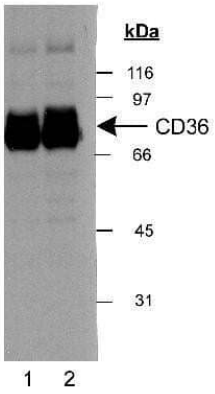
CD36 Antibody - BSA Free

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

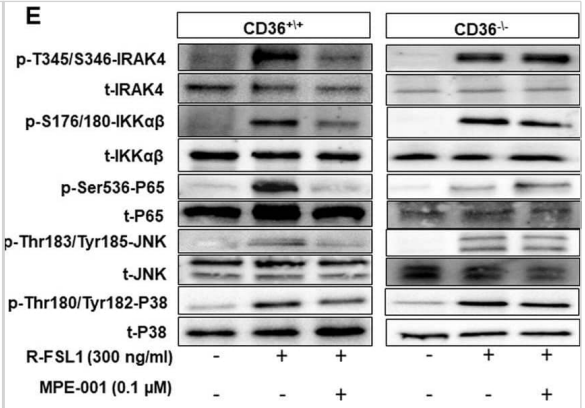
Product Description	
Host	Rabbit
Gene ID	948
Gene Symbol	CD36
Species	Human, Mouse, Amphibian
Reactivity Notes	Amphibian reactivity reported in scientific literature (PMID: 31736973).
Marker	Endothelial Cell Marker
Immunogen	This CD36 Antibody was developed against a synthetic peptide mapping to a region 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.

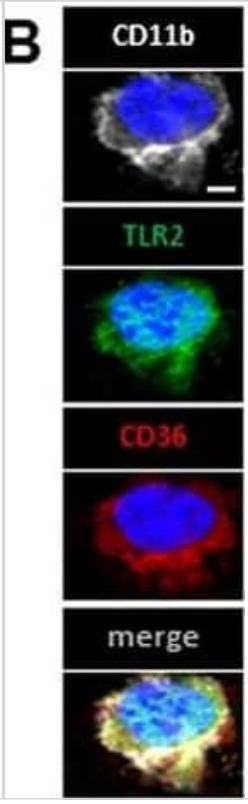
Images

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.	
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.	

Western Blot: CD36 Antibody - BSA Free [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), & DAPI (blue) from blue light-challenged WT mice. Scale bar = 25 µm. (B) High magnification (3X) shows subretinal CD11b-positive cells (white) with the co-localisation of CD36 (red) & TLR2 (green). Scale bar = 5 µm. (C-F) Peritoneal MPs were stimulated with 300 ng/ml R-FSL1 in the presence of 10−7 M MPE-001 or vehicle. (C) MPE-001 disrupted the interaction between CD36 labeled with Cy5 (red) & TLR2 labeled with Cy3 (green) as assessed by FRET after 5 min stimulation with R-FSL1. (D) Percentage of energy transfer measured using LSM-700 confocal microscope (Zeiss). Data in B,C are representative of 3-4 independent experiments. (E) Phosphorylated & total Western blot density bands of IRAK4, IKKαβ & P65-NFκB, JNK & P38 in peritoneal MPs from CD36+/+ & CD36−/− mice stimulated with R-FSL1. (F) Quantification of P65-NFκB following stimulation of CD36+/+ & CD36−/− peritoneal MPs with R-FSL1 using ELISA-based assay. Data in C-F are representative of 3 independent experiments (n = 3/group). In (D,F) one-way ANOVA test with Newman-Keuls post-test for multiple comparison was performed. *P < 0.05, **P < 0.01 & ***P < 0.001 vs R-FSL1. Data are shown as mean ± S.E.M. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31501473), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: CD36 Antibody - BSA Free [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), & DAPI (blue) from blue light-challenged WT mice. Scale bar = 25 µm. (B) High magnification (3X) shows subretinal CD11b-positive cells (white) with the co-localisation of CD36 (red) & TLR2 (green). Scale bar = 5 µm. (C-F) Peritoneal MPs were stimulated with 300 ng/ml R-FSL1 in the presence of 10−7 M MPE-001 or vehicle. (C) MPE-001 disrupted the interaction between CD36 labeled with Cy5 (red) & TLR2 labeled with Cy3 (green) as assessed by FRET after 5 min stimulation with R-FSL1. (D) Percentage of energy transfer measured using LSM-700 confocal microscope (Zeiss). Data in B,C are representative of 3-4 independent experiments. (E) Phosphorylated & total Western blot density bands of IRAK4, IKKαβ & P65-NFκB, JNK & P38 in peritoneal MPs from CD36+/+ & CD36−/− mice stimulated with R-FSL1. (F) Quantification of P65-NFκB following stimulation of CD36+/+ & CD36−/− peritoneal MPs with R-FSL1 using ELISA-based assay. Data in C-F are representative of 3 independent experiments (n = 3/group). In (D,F) one-way ANOVA test with Newman-Keuls post-test for multiple comparison was performed. *P < 0.05, **P < 0.01 & ***P < 0.001 vs R-FSL1. Data are shown as mean ± S.E.M. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31501473), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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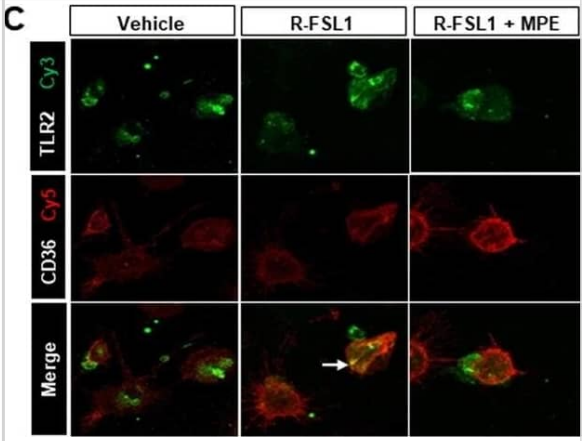

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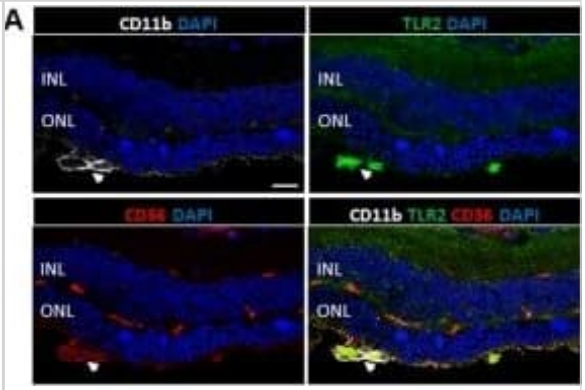

Publications

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]

Acosta-Guti□rrez 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] (Immunocytochemistry/ Immunofluorescence)

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-dihydroneopterin 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-Dihydroneopterin. Antioxid Redox Signal. 2010-11-15 [PMID: 20408759]

Procedures

Serum protocol for CD36 Antibody (NB400-145)

Western Blot Protocol

1. Perform SDS-PAGE (4-12%) on samples to be analyzed, loading 50ug of total protein per lane.

2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.

3. Stain the blot using ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.

4. Rinse the blot in TBS for approximately 5 minutes.

5. Block the membrane using 5% non-fat dry milk in TBS for 1 hour.

6. Dilute the rabbit anti-CD36 primary antibody (NB 400-145) in blocking buffer and incubate overnight at 4 degrees Celsius.

7. Wash the membrane in water for 5 minutes and apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) and incubate 1 hour at room temperature.

8. Wash the blot in TBS containing 0.05-0.1% Tween-20 for 10-20 minutes.

9. Wash the blot in type I water for an additional 10-20 minutes (this step can be repeated as required to reduce background).

10. Apply the detection reagent of choice in accordance with the manufacturer's instructions (Amersham's ECL is the standard reagent used at Novus Biologicals).

Note: Tween-20 can be added to the blocking buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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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