

# Product Datasheet

## CCAR1 Antibody - BSA Free NB500-186

Unit Size: 100 ul

Store at 4C. Do not freeze.

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**NB500-186**

CCAR1 Antibody - BSA Free

**Product Information**

<b>Unit Size</b>	100 ul
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C. Do not freeze.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.09% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

**Product Description**

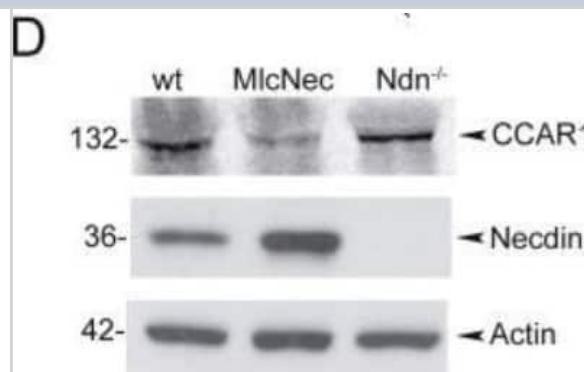
<b>Host</b>	Rabbit
<b>Gene ID</b>	55749
<b>Gene Symbol</b>	CCAR1
<b>Species</b>	Human, Mouse
<b>Immunogen</b>	A synthetic peptide, mapping to a region between residues 1 and 50 of human Cell-Cycle and Apoptosis Regulatory Protein 1 using the numbering given in TrEMBL entry Q6X935 (GenID 55749).

**Product Application Details**

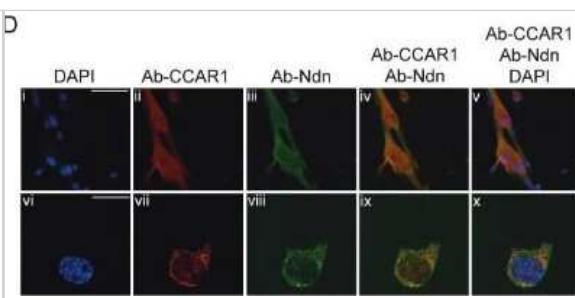
<b>Applications</b>	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
<b>Recommended Dilutions</b>	Western Blot 1:5000-1:15000, Immunohistochemistry 1:500 - 1:2000, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 1-10 ug/mg lysate, Immunohistochemistry-Paraffin 1:500-1:2000
<b>Application Notes</b>	Epitope retrieval with citrate buffer pH 6.0 is recommended for FFPE tissue sections.

**Images**

Western Blot: CCAR1 Antibody [NB500-186] - Necdin controls CCAR1 protein abundance in myogenic cells. Representative western blot showing expression of CCAR1 and necdin in primary myoblasts isolated from wt, Ndn<sup>-/-</sup>, tgMlcNec newborn mice. Proteins were detected using antibodies specific for CCAR1, necdin and beta-actin as control. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0043335>), licensed under a CC-BY license.

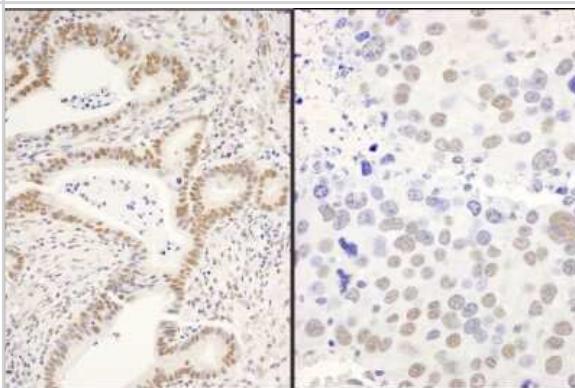


Immunocytochemistry/Immunofluorescence: CCAR1 Antibody [NB500-186] - Necdin interacts with CCAR1/CCAR1. Co-localization of necdin and CCAR1 in primary myoblasts of wt (C57/Bl6) mice. Images taken at confocal laser scanning microscope at 40x (i-v) and 63x (zoomed 1.67 times) magnification. Nuclei are stained with DAPI (i, vi; blue). Panels shows immunostaining experiment using the polyclonal anti-CCAR1 (ii, vii, Ab-CCAR1-red) or monoclonal anti-Ndn (iii, viii; Ab-Ndn-green). Panel iv shows the merged images of ii and iii and panel ix the merged images of vii and viii (Ab-CCAR1 + Ab-Ndn-yellow). Panel v shows the merged images of i, ii and iii and panel x the merged images of vi, vii, viii, (Ab-CCAR + Ab-Ndn + DAPI). Scale bar (i-iv) = 17 um; (vi-x) = 41,75 um. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0043335>), licensed under a CC-BY license.

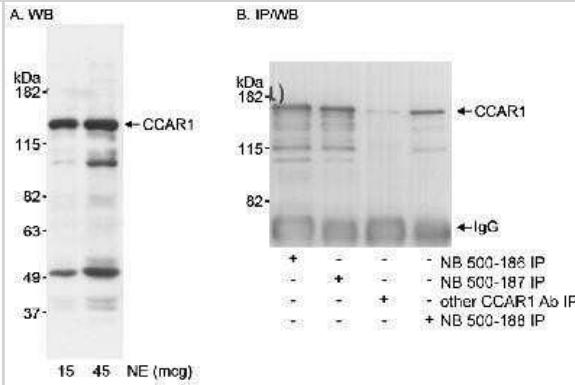


Immunohistochemistry-Paraffin: CCAR1 Antibody [NB500-186] - Human stomach carcinoma (left) and mouse renal cell carcinoma (right).

Antibody: Affinity purified rabbit anti-CCAR1 used at a dilution of 1:1,000 (1ug/ml). Detection: DAB

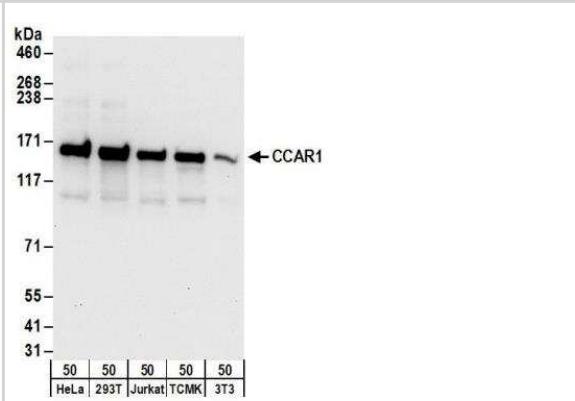


Western Blot: CCAR1 Antibody [NB500-186] - Detection of Human CCAR1 on HeLa whole cell lysate using NB500-186. CCAR1 was also IPed with another rabbit anti-CCAR1 antibody, NB500-187, and NB500-188. IPed CCAR1 was blotted using NB500-188.



Western Blot: CCAR1 Antibody [NB500-186] - Detection of Human and Mouse CCAR1 by Western Blot. Samples: Whole cell lysate (50 ug) from HeLa, 293T, Jurkat, mouse TCMK-1, and mouse NIH3T3 cells.

Antibodies: Affinity purified rabbit anti-CCAR1 antibody NB500-186 used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 10 seconds.

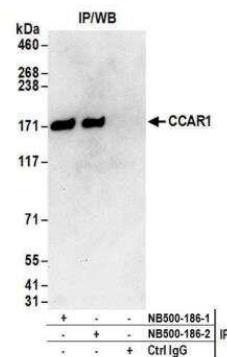
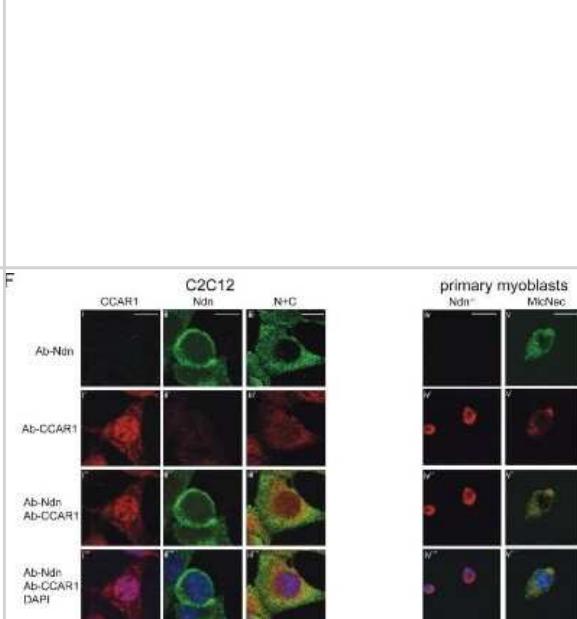
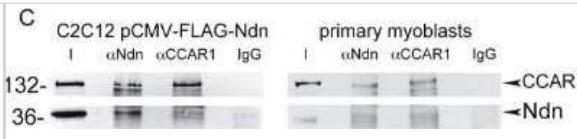


Western Blot: CCAR1 Antibody [NB500-186] - Necdin interacts with CCAR1/CARP1. Interaction of necdin and CCAR1 in C2C12 myoblasts and primary myoblast cells. Co-IP experiments were performed on protein extract from C2C12 transfected with pCMV-FLAG-Necdin (C2C12 pCMV-FLAG-Ndn) or primary myoblasts from C57/Bl6 newborn mice. Proteins were immunoprecipitated using the polyclonal anti-Ndn (alpha-Ndn) or polyclonal anti-CCAR1 (alpha-CCAR1) and with a non-specific rabbit antisera as control (IgG). Necdin and CCAR1 were detected in immunoprecipitated samples using specific antibody. Input (I) represents 10% of the immunoprecipitated proteins. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0043335>), licensed under a CC-BY license.

Western Blot: CCAR1 Antibody [NB500-186] - Necdin controls CCAR1 protein abundance in myogenic cells. Representative western blot showing CCAR1 and necdin (beta-actin as loading control) expression in C2C12 mock transfected (M) or transfected with pSG5-HA-CCAR1 and/or pCMV-FLAG-Necdin (N or N+C). Both the endogenous and transfected CCAR1 were detected with the polyclonal anti-CCAR1, the transfected CCAR1 with anti-HA. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0043335>), licensed under a CC-BY license.

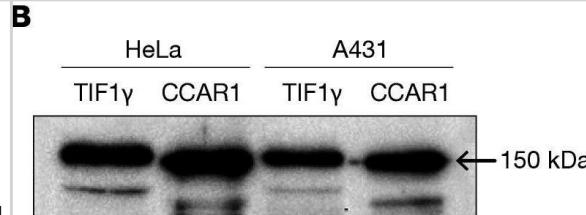
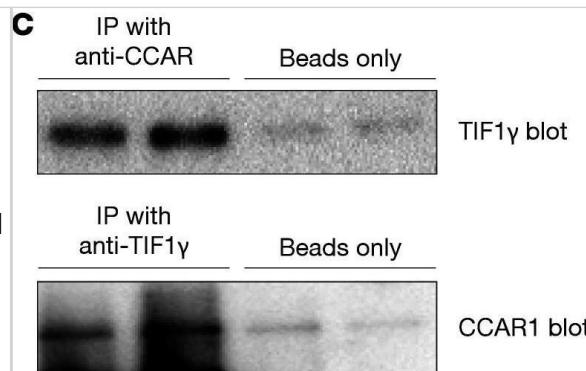
Immunocytochemistry/Immunofluorescence: CCAR1 Antibody [NB500-186] - Images taken at confocal laser scanning microscope (63x magnif. zoomed 1.67 x) showing co-immunostaining on C2C12 transfected with pSG5-HA-CCAR1 (i) and/or pCMV-Ndn (C2C12, CCAR1-Ndn-N+C) (ii, iii) and on primary myoblasts from Ndn-/-(Ndn-/-) (iv) and tgMlcNec (MlcNec) (v) newborn mice. Panels i-v show immunostaining using the specific monoclonal anti-Ndn (Ndn: Ab-Ndn-green); panels i'-v' show immunostaining using the polyclonal anti-CCAR1 (CCAR1: Ab-CCAR1-red). Co-immunostained images of anti-Ndn and anti-CCAR1 are shown in panels i"-v" (Ab-CCAR1 + Ab-Ndn-yellow). Panels i"-v" show merged images with nuclei stained with DAPI (merge Ab-CCAR1 + ab-Ndn + DAPI). Scale bars (i-iii) 41,75 um; (iv-v) 44,7 um. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0043335>), licensed under a CC-BY license.

Immunoprecipitation: CCAR1 Antibody [NB500-186] - Detection of human CCAR1 by western blot of immunoprecipitates. Samples: Whole cell lysate (1 mg for IP; 20% of IP loaded) from HeLa cells. Antibodies: Affinity purified rabbit anti-CCAR1 antibody NB500-186 (lot NB500-186-2) used for IP at 6 ug/mg lysate. CCAR1 was also immunoprecipitated by a previous lot (lot NB500-186-1) of the antibody. For blotting immunoprecipitated CCAR1, NB500-186 was used at 1 ug/ml. Detection: Chemiluminescence with an exposure time of 10 seconds.



Western Blot: CCAR1 Antibody [NB500-186] - Autoantibody discovery in anti-TIF1-γ-positive DM patients without cancer.(A)  
 Immunoprecipitations (IPs) were performed using lysates made from radiolabeled cells & plasma from anti-TIF1-γ-positive DM patients, 5 of whom did not have a cancer, & 5 of whom had a detected cancer. An IP performed with a sample from a healthy control (HC) individual is shown in the right-most lane. Migration of molecular weight standards is marked on the left. (B) Immunoblotted lysates. Lysates made from HeLa & A431 cells were immunoblotted with commercial antibodies against TIF1-γ & CCAR1, as described in the Methods section. Both proteins migrate at approximately 150 kDa. (C) Interaction between CCAR1 & TIF1-γ. Co-IPs were performed as described in the Methods section, using antibodies against CCAR1 (upper panel, 2 left lanes) or TIF1-γ (lower panel, 2 left lanes). Detection of the IPs was performed by immunoblotting with anti-TIF1-γ (upper panel, 2 left lanes) or anti-CCAR1 (lower panel, 2 left lanes) antibodies. Control IPs, performed using Protein A beads only, were performed & immunoblotted as above. IPs were performed in duplicate. These data are representative of those obtained in 2 additional experiments. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35040440>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

Western Blot: CCAR1 Antibody [NB500-186] - Autoantibody discovery in anti-TIF1-γ-positive DM patients without cancer.(A)  
 Immunoprecipitations (IPs) were performed using lysates made from radiolabeled cells & plasma from anti-TIF1-γ-positive DM patients, 5 of whom did not have a cancer, & 5 of whom had a detected cancer. An IP performed with a sample from a healthy control (HC) individual is shown in the right-most lane. Migration of molecular weight standards is marked on the left. (B) Immunoblotted lysates. Lysates made from HeLa & A431 cells were immunoblotted with commercial antibodies against TIF1-γ & CCAR1, as described in the Methods section. Both proteins migrate at approximately 150 kDa. (C) Interaction between CCAR1 & TIF1-γ. Co-IPs were performed as described in the Methods section, using antibodies against CCAR1 (upper panel, 2 left lanes) or TIF1-γ (lower panel, 2 left lanes). Detection of the IPs was performed by immunoblotting with anti-TIF1-γ (upper panel, 2 left lanes) or anti-CCAR1 (lower panel, 2 left lanes) antibodies. Control IPs, performed using Protein A beads only, were performed & immunoblotted as above. IPs were performed in duplicate. These data are representative of those obtained in 2 additional experiments. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/35040440>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Karolina Kuodyt? The Golgi complex as a regulatory platform for DNA Damage Response pathways Thesis 2023-01-01 (WB, Human)

Details:  
WB 1:2000

Okpara MO, Hermann C, van der Watt PJ et al. A mass spectrometry-based approach for the identification of Kpn $\beta$ 1 binding partners in cancer cells Scientific reports 2022-11-23 [PMID: 36418423] (WB, Human)

Details:  
Dilution of 1:1000 was used

Fiorentino DF, Mecoli CA, Rosen MC et al. Immune responses to CCAR1 and other dermatomyositis autoantigens are associated with attenuated cancer emergence The Journal of clinical investigation 2022-01-18 [PMID: 35040440] (WB, Human)

Francois S, D'Orlando C, Fatone T et al. Necdin Enhances Myoblasts Survival by Facilitating the Degradation of the Mediator of Apoptosis CCAR1/CARP1. PLoS One. 2012-08-14 [PMID: 22905258] (WB, Mouse)

Ou et al. J.Biol.Chem 284 (31):20629-20637. 2009-01-01 [PMID: 19520846]



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## Products Related to NB500-186

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP2-55611PEP	CCAR1 Recombinant Protein Antigen

## 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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