

# Product Datasheet

## PPAR alpha/NR1C1 Antibody (3B6/PPAR) - BSA Free NB300-537

Unit Size: 100 ug

Store at -20C. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



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Updated 9/9/2025 v.20.1

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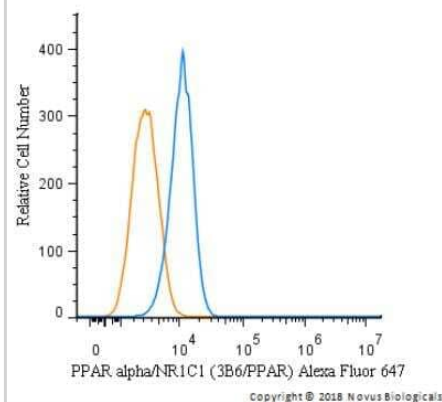


**NB300-537****PPAR alpha/NR1C1 Antibody (3B6/PPAR) - BSA Free**

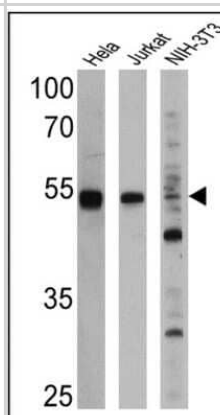
<b>Product Information</b>	
<b>Unit Size</b>	100 ug
<b>Concentration</b>	1 mg/ml
<b>Storage</b>	Store at -20C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	3B6/PPAR
<b>Preservative</b>	0.05% Sodium Azide
<b>Isotype</b>	IgG2b
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	PBS
<b>Product Description</b>	
<b>Description</b>	Novus Biologicals Mouse PPAR alpha/NR1C1 Antibody (3B6/PPAR) - BSA Free (NB300-537) is a monoclonal antibody validated for use in IHC, WB, Flow, ICC/IF, Simple Western, IP and ChIP. Anti-PPAR alpha/NR1C1 Antibody: Cited in 16 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Mouse
<b>Gene ID</b>	5465
<b>Gene Symbol</b>	PPARA
<b>Species</b>	Human, Mouse, Rat, Bovine, Rabbit
<b>Specificity/Sensitivity</b>	PPAR alpha (3B6/PPAR)
<b>Immunogen</b>	Purified recombinant PPAR alpha protein.
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Flow Cytometry, Gel Super Shift Assays, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP), Knockdown Validated
<b>Recommended Dilutions</b>	Western Blot 2 - 5 ug/ml, Simple Western 1:50, Flow Cytometry 1 ug / 10 <sup>6</sup> cells, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence 2 ug/ml, Immunoprecipitation 1:10 - 1:500, Immunohistochemistry-Paraffin 1:200, Gel Super Shift Assays 1:1 - 1:100, Chromatin Immunoprecipitation (ChIP) 1:10-1:500, Knockdown Validated
<b>Application Notes</b>	May be useful in ChIP. Rabbit-IP reported in publication, see Sumanasekera WK et al. Rat-IHC reported in publication, see Crespillo A et al. See <a href="#">Simple Western Antibody Database</a> for Simple Western validation: Tested in Skin, separated by Size, antibody dilution of 1:50

## Images

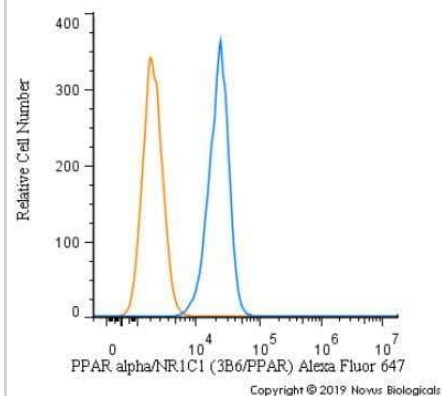
**Flow Cytometry: PPAR alpha/NR1C1 Antibody (3B6/PPAR) [NB300-537]**  
 - An intracellular stain was performed on U-87 cells with PPAR alpha/NR1C1 Antibody [3B6/PPAR] NB300-537AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



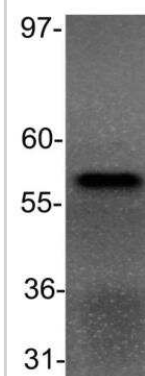
**Western Blot: PPAR alpha/NR1C1 Antibody (3B6/PPAR) [NB300-537]** - Analysis of 25 ug of HeLa (Lane 1), Jurkat (Lane 2), and NIH-3T3 cell lysates (Lane 3) and a molecular weight protein ladder.



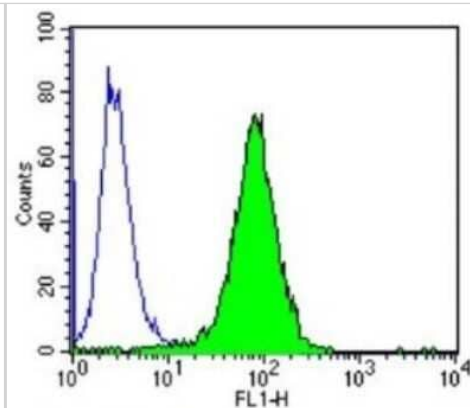
**Flow Cytometry: PPAR alpha/NR1C1 Antibody (3B6/PPAR) [NB300-537]**  
 - An intracellular stain was performed on Hek293 cells with PPAR alpha/NR1C1 [3B6/PPAR] Antibody NB300-537AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



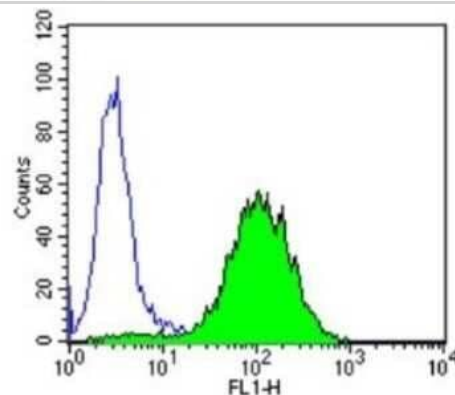
**Western Blot: PPAR alpha/NR1C1 Antibody (3B6/PPAR) [NB300-537]** - 293T cell lysate. Image from verified customer review.



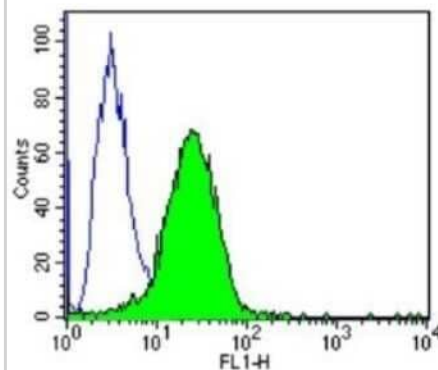
Flow Cytometry: PPAR alpha/NR1C1 Antibody (3B6/PPAR) [NB300-537]  
- Analysis of PPAR alpha in Jurkat cells compared to an isotype control (blue).



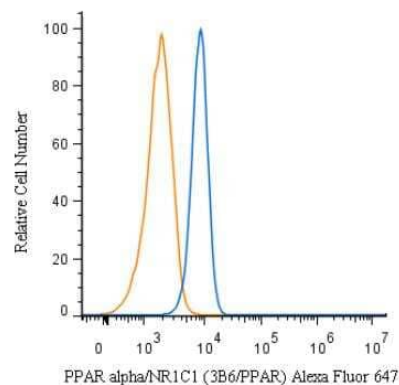
Flow Cytometry: PPAR alpha/NR1C1 Antibody (3B6/PPAR) [NB300-537]  
- Analysis of PPAR alpha in Hela cells compared to an isotype control (blue).



Flow Cytometry: PPAR alpha/NR1C1 Antibody (3B6/PPAR) [NB300-537]  
- Analysis of PPAR alpha in 3T3 cells compared to an isotype control (blue).

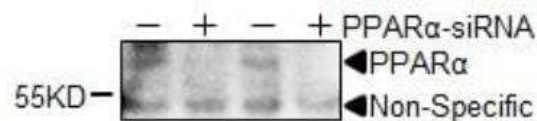


Flow Cytometry: PPAR alpha/NR1C1 Antibody (3B6/PPAR) [NB300-537]  
- An intracellular stain was performed on Jurkat cells with PPAR alpha/NR1C1 Antibody (3B6/PPAR) NB300-537AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.

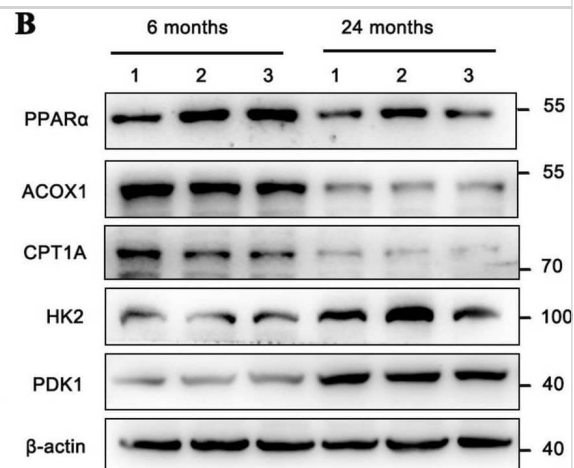


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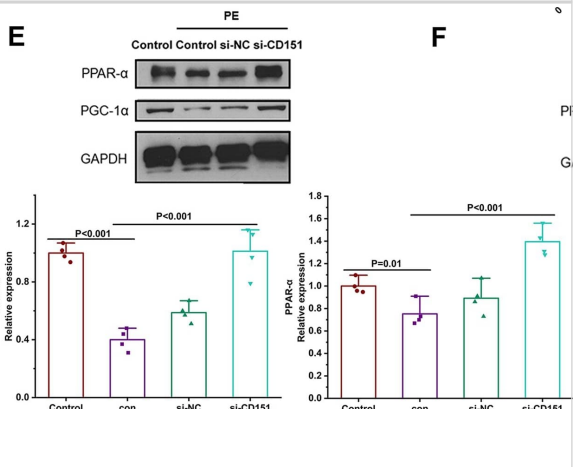
Western Blot: PPAR alpha/NR1C1 Antibody (3B6/PPAR) - BSA Free [NB300-537] - PPAR alpha/NR1C1 was knocked down with siRNA in primary cultured rat cardiomyocytes. Image from verified customer review.



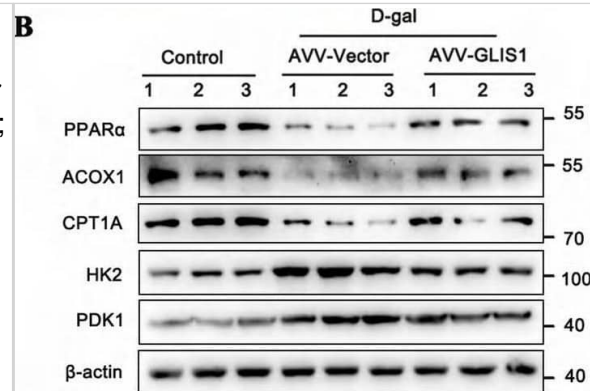
The metabolic remodeling process in natural kidney aging. A Representative images of Oil Red O staining in the 24-month-old and 6-month-old group (n = 6), scale bar = 50  $\mu$ m; B, C the downregulated protein levels of FAO markers (i.e., PPAR $\alpha$ , ACOX1, and CPT1A) and upregulated protein levels of glycolysis markers (i.e., HK2 and PDK1) by western blot, and their semi-quantitative analyses (n = 6); D immunostaining for GLIS1 (red) and PPAR $\alpha$  (green), with DAPI (blue) counterstaining by IF staining in the 24-month-old and 6-month-old group (n = 6), scale bar = 50  $\mu$ m; E lactate levels in the 24-month-old and 6-month-old group (n = 6); F the downregulated protein levels of PPAR $\alpha$ , ACOX1, and CPT1A, and up-regulated protein levels of HK2 and PDK1 in the 24-month-old group by IHC assay and their semi-quantitative analyses (n = 6), scale bar = 50  $\mu$ m. The data are expressed as the mean  $\pm$  SD of three independent experiments. \*\*P < .01 or \*\*\*P < .001 versus the 6-month-old group by Student's t-test Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39736678>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



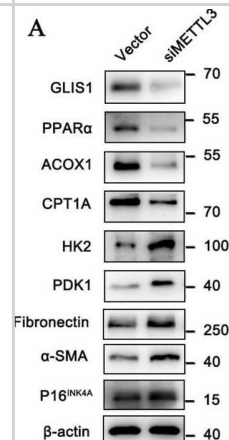
Bioinformatics analysis of proteomic results. (A). Hierarchical clustering analysis of the differentially expressed proteins in the two groups (si-CD151 vs si-NC) (n = 3) (B) The differentially expressed proteins analyzed by volcano plots between every two groups (si-CD151 vs si-NC) (C) Circus plots of GO Classification Annotation of differential protein. (D) KEGG pathways of differentially expressed proteins. OS: Organismal Systems; M: Metabolism; GIP: Genetic Information Processing; CP: Cellular Processes. (E) Western blot analysis of PPAR- $\alpha$ , PCG-1 $\alpha$  and GAPDH in CMs under PE, quantified by Image J (n = 4). (F) Western blot analysis of PPAR- $\gamma$  and GAPDH in CFs under Ang-II, quantified by Image J (n = 4). Data are expressed as mean  $\pm$  SEM. Image collected and cropped by CiteAb from the following open publication (<https://dx.plos.org/10.1371/journal.pone.0297121>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



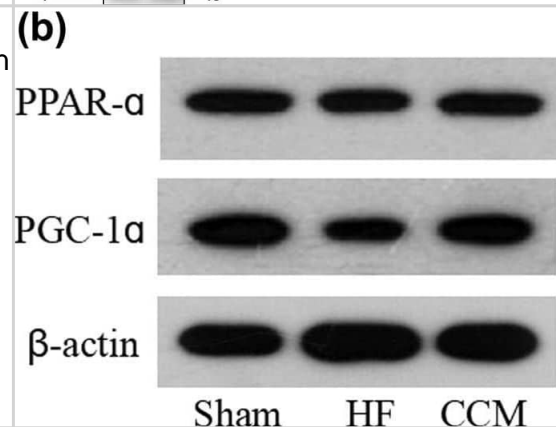
The over-expressed GLIS1 suppressed metabolic remodeling from FAO to glycolysis in the accelerated aging mouse model. A The representative images of mouse kidney tissue in the control, AAV-Vector and AAV-GLIS1 group stained with Oil Red O (n = 6), scale bar = 50  $\mu$ m; B, C downregulated protein levels of PPAR $\alpha$ , ACOX1, and CPT1A in the accelerated aging mouse model were reversed in the presence of AAV-GLIS1, while upregulated protein levels of HK2 and PKD1 in the accelerated aging mouse model were reduced by introducing AAV-GLIS1 (n = 6); D lactate levels in the control, AAV-Vector and AAV-GLIS1 group (n = 6); E the reversed effect of PPAR $\alpha$ , ACOX1 and CPT1A levels, as well as HK2 and PDK1 levels in the presence of AAV-GLIS1 by IHC assay, and their semi-quantitative analyses (n = 6), scale bar = 50  $\mu$ m; F immunostaining for PPAR $\alpha$ , ACOX1, CPTA1, HK2, and PDK1 (green), with DAPI (blue) counterstaining by IF staining in accelerated aging mouse model (n = 6), scale bar = 50  $\mu$ m. The data are expressed as the mean  $\pm$  SD of three independent experiments. \*\*P < .01 or \*\*\*P < .001 versus the AAV-vector group by one-way ANOVA Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39736678>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



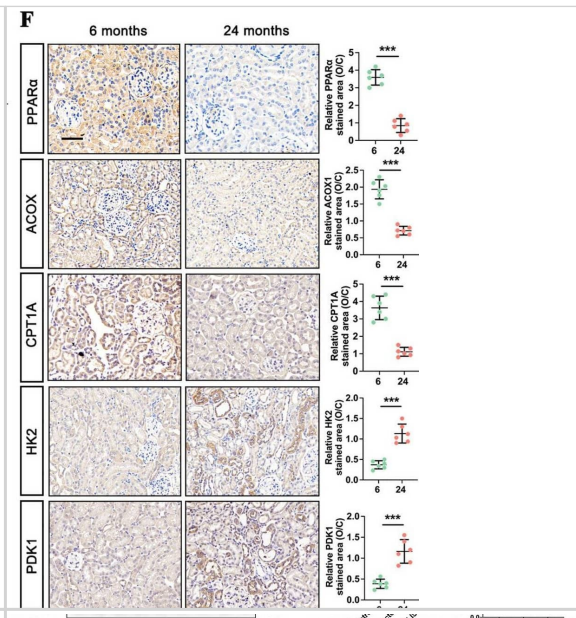
The ablation of METTL3 triggered metabolic remodeling and aggravated cell senescence renal fibrosis. A Protein levels of GLIS1, PPAR $\alpha$ , ACOX1, CPT1A, HK2, PDK1, FN,  $\alpha$ -SMA, and P16INK4A by western blot in the vector and siMETTL3 group, and their semi-quantitative analyses (n = 3); B representative images of Oil Red O staining in the vector and siMETTL3 group (n = 3), scale bar = 50  $\mu$ m; C double immunostaining for GLS1 and PPAR $\alpha$ , ACOX1, CPT1A, HK2, PDK1, and  $\alpha$ -SMA by IF staining (n = 3) scale bar = 50  $\mu$ m. The data are expressed as the mean  $\pm$  SD of three independent experiments. \*\*P < .01 or \*\*\*P < .001 versus the vector group by Student's t-test Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39736678>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



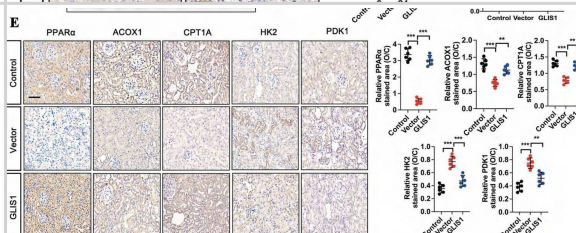
CCM treatment upregulates AMPK and PPAR- $\alpha$  pathways. (a) Western blot analysis of the expression of AMPK. Densitometric analysis is shown in the bar graph. (b) Western blot analysis of the expressions of PPAR- $\alpha$  and PGC-1 $\alpha$ . Densitometric analysis is shown in the bar graph. Data are expressed as mean values  $\pm$  SD (\*P < 0.05 compared with the sham group; #P < 0.05 compared with HF group). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35799598>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



The metabolic remodeling process in natural kidney aging. A Representative images of Oil Red O staining in the 24-month-old and 6-month-old group (n = 6), scale bar = 50  $\mu$ m; B, C the downregulated protein levels of FAO markers (i.e., PPAR $\alpha$ , ACOX1, and CPT1A) and upregulated protein levels of glycolysis markers (i.e., HK2 and PDK1) by western blot, and their semi-quantitative analyses (n = 6); D immunostaining for GLIS1 (red) and PPAR $\alpha$  (green), with DAPI (blue) counterstaining by IF staining in the 24-month-old and 6-month-old group (n = 6), scale bar = 50  $\mu$ m; E lactate levels in the 24-month-old and 6-month-old group (n = 6); F the downregulated protein levels of PPAR $\alpha$ , ACOX1, and CPT1A, and up-regulated protein levels of HK2 and PDK1 in the 24-month-old group by IHC assay and their semi-quantitative analyses (n = 6), scale bar = 50  $\mu$ m. The data are expressed as the mean  $\pm$  SD of three independent experiments. \*\*P < .01 or \*\*\*P < .001 versus the 6-month-old group by Student's t-test Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39736678>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



The over-expressed GLIS1 suppressed metabolic remodeling from FAO to glycolysis in the accelerated aging mouse model. A The representative images of mouse kidney tissue in the control, AAV-Vector and AAV-GLIS1 group stained with Oil Red O (n = 6), scale bar = 50  $\mu$ m; B, C downregulated protein levels of PPAR $\alpha$ , ACOX1, and CPT1A in the accelerated aging mouse model were reversed in the presence of AAV-GLIS1, while upregulated protein levels of HK2 and PKD1 in the accelerated aging mouse model were reduced by introducing AAV-GLIS1 (n = 6); D lactate levels in the control, AAV-Vector and AAV-GLIS1 group (n = 6); E the reversed effect of PPAR $\alpha$ , ACOX1 and CPT1A levels, as well as HK2 and PDK1 levels in the presence of AAV-GLIS1 by IHC assay, and their semi-quantitative analyses (n = 6), scale bar = 50  $\mu$ m; F immunostaining for PPAR $\alpha$ , ACOX1, CPTA1, HK2, and PDK1 (green), with DAPI (blue) counterstaining by IF staining in accelerated aging mouse model (n = 6), scale bar = 50  $\mu$ m. The data are expressed as the mean  $\pm$  SD of three independent experiments. \*\*P < .01 or \*\*\*P < .001 versus the AAV-vector group by one-way ANOVA Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39736678>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Zhuang Y, Zhang X, Zhang S et al. Chaperone-mediated autophagy manipulates PGC1 $\alpha$  stability and governs energy metabolism under thermal stress. *Nature communications* 2025-05-14 [PMID: 40360527]

Zhang F, Liu L, Xie Y et al. Cardiac contractility modulation ameliorates myocardial metabolic remodeling in a rabbit model of chronic heart failure through activation of AMPK and PPAR- $\gamma$  pathway *Open Med (Wars)* 2022-02-22 [PMID: 35799598] (Immunoprecipitation)

Liu B, Jie X, Deng J et al. Bupi Yishen formula may prevent kidney fibrosis by modulating fatty acid metabolism in renal tubules *Phytomedicine : international journal of phytotherapy and phytopharmacology* 2023-03-16 [PMID: 37001297] (IHC-P, Human, Rat)

Abou-Rjeileh U, Dos Santos Neto JM, Chirivi M et al. Oleic acid abomasal infusion limits lipolysis and improves insulin sensitivity in adipose tissue from periparturient dairy cows *Journal of dairy science* 2023-04-25 [PMID: 37105874] (Simple Western, Bovine)

Details:

Dilutions 1:50

Chun-yang H, Shin-ichi O, Xiaoyong X et al. PERM1 regulates genes involved in fatty acid metabolism in the heart by interacting with PPAR $\alpha$  and PGC-1 $\alpha$  *Scientific Reports* 2022-08-26 [PMID: 36028747] (WB, Rat)

Cao H, Wen G et al. Role of peroxisome proliferator-activated receptor alpha in atherosclerosis. *Mol Med Rep* 2014-01-05 [PMID: 24604149] (IF/IHC, Rabbit)

Yang Q, Sun S, Liu W et al. Hypoxia training improves hepatic steatosis partly by downregulation of CB1 receptor in obese mice *Biochemical and Biophysical Research Communications* 2020-02-01 [PMID: 32122652] (WB, Mouse)

Kumar S, Rani R, Karns R, Gandhi CR. Augmenter of liver regeneration protein deficiency promotes hepatic steatosis by inducing oxidative stress and microRNA-540 expression *FASEB J.* 2018-12-12 [PMID: 30540918] (IHC-P, Mouse)

Li L, He M, Xiao H et al. Acetic Acid Influences BRL-3A Cell Lipid Metabolism via the AMPK Signalling Pathway. *Cell Physiol Biochem* 2018-03-06 [PMID: 29529605] (WB, Rat)

Sun Q, Zhang W, Zhong W et al. Pharmacological inhibition of NOX4 ameliorates alcohol-induced liver injury in mice through improving oxidative stress and mitochondrial function. *Biochim Biophys Acta* 2016-09-12 [PMID: 27634671] (WB, Mouse)

Rotondi S, Modarelli A, Oliva MA et al. Expression of Peroxisome Proliferator-Activated Receptor alpha (PPARalpha) in somatotropinomas: Relationship with Aryl hydrocarbon receptor Interacting Protein (AIP) and in vitro effects of fenofibrate in GH3 cells. *Mol. Cell. Endocrinol.* 2016-02-10 [PMID: 26872613] (WB, Rat)

Tatone C, Benedetti E, Vitti M et al. Modulating Intrafollicular Hormonal Milieu in Controlled Ovarian Stimulation: Insights From PPAR Expression in Human Granulosa Cells. *J. Cell. Physiol.* 2015-09-02 [PMID: 26332656] (WB, Human)

More publications at <http://www.novusbio.com/NB300-537>



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Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB300-537**

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP2-27231	Mouse IgG2b Isotype Control (MPC-11)

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### **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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