

# Product Datasheet

## NLRP1/NALP1 Antibody - BSA Free NB100-56148

Unit Size: 0.05 ml

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

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



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**NB100-56148**

NLRP1/NALP1 Antibody - BSA Free

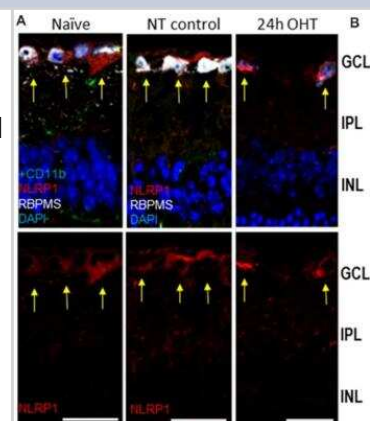
Product Information	
<b>Unit Size</b>	0.05 ml
<b>Concentration</b>	This product is unpurified. The exact concentration of antibody is not quantifiable.
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Unpurified
<b>Buffer</b>	Whole antisera

Product Description	
<b>Description</b>	Novus Biologicals Rabbit NLRP1/NALP1 Antibody - BSA Free (NB100-56148) is a polyclonal antibody validated for use in IHC, WB, ICC/IF and IP. Anti-NLRP1/NALP1 Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Rabbit
<b>Gene ID</b>	22861
<b>Gene Symbol</b>	NLRP1
<b>Species</b>	Human, Mouse
<b>Reactivity Notes</b>	Mouse reactivity reported in scientific literature (PMID: 30930743).
<b>Immunogen</b>	A synthetic peptide corresponding to amino acids 161-180 (PSSPDHESPSQESPNAPTST) of human NLRP1/NALP1 was used as immunogen, GenBank no. NP_127497.1.

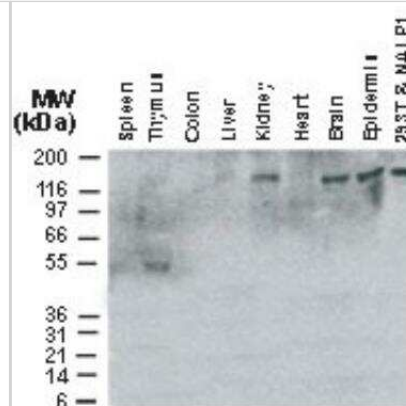
Product Application Details	
<b>Applications</b>	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunoprecipitation
<b>Recommended Dilutions</b>	Western Blot 1:1000-1:2000, Immunohistochemistry, Immunocytochemistry/Immunofluorescence, Immunoprecipitation 1:50-1:200, Immunohistochemistry-Paraffin 1:1000-1:5000, Immunohistochemistry-Frozen

**Images**

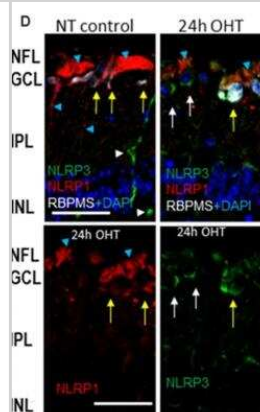
Immunohistochemistry: NLRP1/NALP1 Antibody [NB100-56148] - OHT-induced upregulation of Aim2 inflammasome in the retina. NLRP1 antibody labeling (red) in the inner retina; yellow arrows indicate colocalization with RGC neurons (RBPSM+) in the GCL. Image collected and cropped by Citeab from the following publication (Inflammasome Activation Induces Pyroptosis in the Retina Exposed to Ocular Hypertension Injury. Front Mol Neurosci (2019) licensed under a CC-BY license.



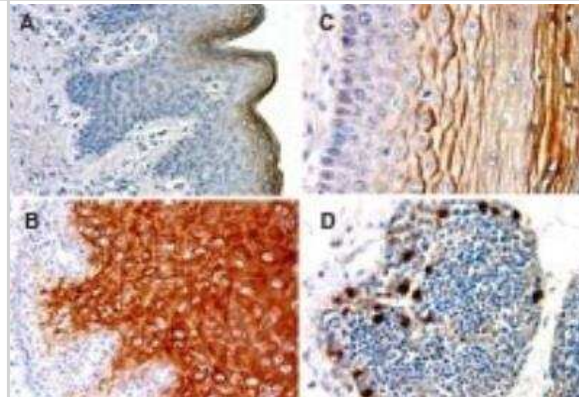
**Western Blot: NLRP1/NALP1 Antibody [NB100-56148]** - Analysis of NLRP1/NALP1 in adult human tissue lysates using NLRP1 antibody at 1:2000. Full-length NLRP1 protein was detected at highest levels in kidney, brain and epidermis. A smaller band was detected in thymus, possibly representing a NLRP1/NALP1 breakdown product or alternatively spliced form. 293T/NALP1: positive control, 293T cells transiently transfected with full-length NLRP1.



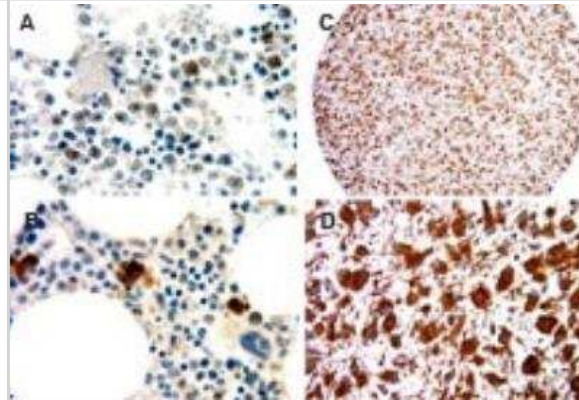
**Immunohistochemistry: NLRP1/NALP1 Antibody [NB100-56148]** - The NLRP1 and NLRP3 proteins localized to distinct cell types in the GCL of naive and NT control retinas: NLRP3 (green) is only expressed in blood vessels (white arrowheads). Twenty four hours after OHT, NLRP3 colocalizes with NLRP1 in RGCs (yellow arrows) and to RBPMS- cells (white arrows). Blue arrowheads denote labeling in RGC axons and dendrites. Bar, 25 um on all panels. Image collected and cropped by Citeab from the following publication (Inflammasome Activation Induces Pyroptosis in the Retina Exposed to Ocular Hypertension Injury. *Front Mol Neurosci* (2019) licensed under a CC-BY license.



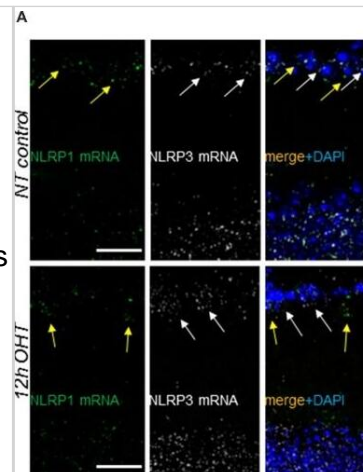
**Immunohistochemistry-Paraffin: NLRP1/NALP1 Antibody [NB100-56148]** - FFPE normal human tissue sections stained for NALP1 (CARD7/NAC) using NB100-56148 at 1:2000. (A) epidermis, (B) esophagus (C) uterine cervix, and (D) thymus. Hematoxylin-eosin counterstain. In A-C, NALP1 expression is associated with differentiation in stratified epithelial of the skin, esophagus, and cervix.



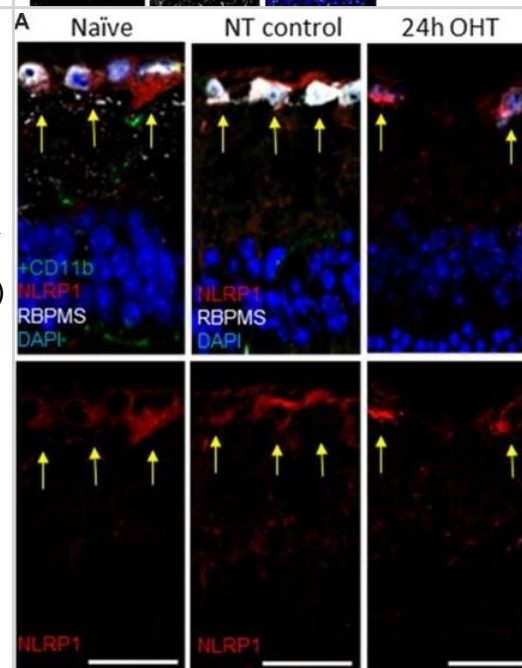
**Immunohistochemistry-Paraffin: NLRP1/NALP1 Antibody [NB100-56148]** - FFPE human tissue sections stained for NALP1 (CARD7/NAC) using NB100-56148 at 1:2000. (A) bone marrow and (C) brain glioma core from a brain cancer microarray. (B) and (D) are higher magnifications of (A) and (C) respectively. Hematoxylin-eosin counterstain.



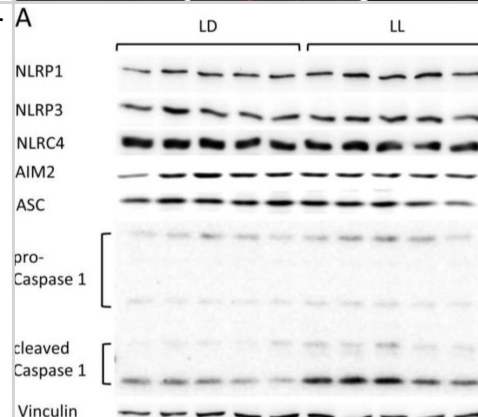
Immunocytochemistry/ Immunofluorescence: NLRP1/NALP1 Antibody [NB100-56148] - Gene expression & cellular distribution of NLRP1, NLRP3 & Aim2 sensors in the retina. (A) RNAscope analysis of NLRP1 (green dots, yellow arrows) & NLRP3 (white dots, white arrows) transcript abundance in normotensive control (NT control) & experimental (OHT) retinas at 12 h postinjury. (B) Aim2 transcript (red dots) abundance in normotensive control & experimental retinas. Co-staining for the Muller glia marker glutamine synthetase (GISyn, green) is added to indicate cellular expression of Aim2 in the GCL layer (yellow arrows) & INL (white arrows) in control & 12 h post-OHT retinas. Bar, 25  $\mu$ m on all panels. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30930743>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: NLRP1/NALP1 Antibody [NB100-56148] - OHT-induced upregulation of Aim2 inflammasome in the retina. (A) NLRP1 antibody labeling (red) in the inner retina; yellow arrows indicate colocalization with RGC neurons (RBPMS+) in the GCL. (B) Immunohistochemistry for Aim2 protein (red) & Muller glia marker (GISyn, green). Arrows show colocalization with Muller glia; no colocalization is detected with astrocytes (GFAP, white) in both control & 24 h post-OHT retinas. (C) NLRP3 labeling (green) in the inner retina of naïve & control eyes localized only to blood capillaries (white arrowhead) & astrocytes (yellow arrows), but not to RGCs (RBPMS cells). At 24 h post-injury the labeling in large cells in the GCL & INL (white arrows) are observed. (D) The NLRP1 and NLRP3 proteins localized to distinct cell types in the GCL of naïve & NT control retinas: NLRP3 (green) is only expressed in blood vessels (white arrowheads). Twenty four hours after OHT, NLRP3 colocalizes with NLRP1 in RGCs (yellow arrows) & to RBPMS- cells (white arrows). Blue arrowheads denote labeling in RGC axons & dendrites. Bar, 25  $\mu$ m on all panels. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30930743>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Protein concentration of active caspase 1 was significantly elevated after LL exposure. Western blot analysis of inflammasome components (A). Protein levels of ASC were reduced (A,F), whereas protein levels of cleaved caspase 1 (A,H) were significantly elevated in LL mice. No differences were found for NLRP1 (A,B), NLRP3 (A,C), NLRC4 (A,D), AIM2 (A,E), and pro-caspase 1 (A,G). Data were analyzed using Mann-Whitney U tests. \*  $p < 0.05$ , \*\*  $p < 0.001$ . Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/37508501>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Xu L, Peng F, Luo Q, Ding Y et al. IRE1 $\beta$  silences dsRNA to prevent taxane-induced pyroptosis in triple-negative breast cancer Cell 2024-10-17 [PMID: 39419025]

Ketelauri P, Scharov K, von Gall C et al. Acute Circadian Disruption Due to Constant Light Promotes Caspase 1 Activation in the Mouse Hippocampus Cells 2023-07-12 [PMID: 37508501]

Pronin A, Pham D, An W et al. Inflammasome Activation Induces Pyroptosis in the Retina Exposed to Ocular Hypertension Injury Front Mol Neurosci 2019-03-13 [PMID: 30930743] (IHC-Fr, Mouse)



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### **Products Related to NB100-56148**

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NBL1-13671	NLRP1/NALP1 Overexpression Lysate
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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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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