

# Product Datasheet

## Mas Antibody - BSA Free NLS1531

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)



[technical@novusbio.com](mailto:technical@novusbio.com)

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**NLS1531**

Mas Antibody - BSA Free

**Product Information**

<b>Unit Size</b>	0.05 ml
<b>Concentration</b>	1 mg/ml
<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>	0.01% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	PBS

**Product Description**

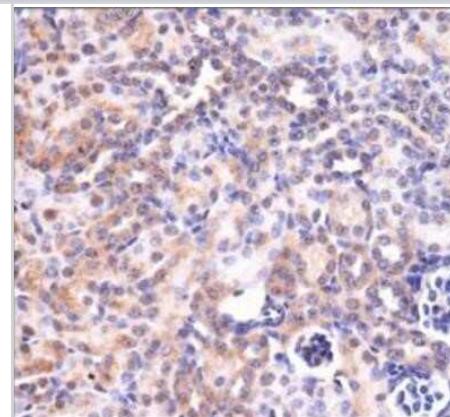
<b>Description</b>	Novus Biologicals Rabbit Mas Antibody - BSA Free (NLS1531) is a polyclonal antibody validated for use in IHC, Flow and ICC/IF. Anti-Mas Antibody: Cited in 4 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Rabbit
<b>Gene ID</b>	4142
<b>Gene Symbol</b>	MAS1
<b>Species</b>	Human, Mouse, Rat
<b>Immunogen</b>	KLH conjugated synthetic peptide made to the C-terminus of human MAS1. [UniProt# P04201]

**Product Application Details**

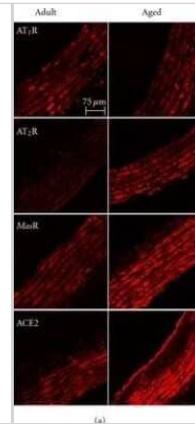
<b>Applications</b>	Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
<b>Recommended Dilutions</b>	Flow Cytometry reported in scientific literature (PMID 26386115), Immunohistochemistry 1:100-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500. Use reported in scientific literature (PMID 22187625), Immunohistochemistry-Paraffin 1:100-1:500. Use reported in scientific literature (PMID 22187625), Immunohistochemistry-Frozen 1:100-1:500
<b>Application Notes</b>	Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended.

**Images**

Immunohistochemistry: Mas Antibody [NLS1531] - Analysis of MAS1 in mouse kidney using DAB with hematoxylin counterstain.

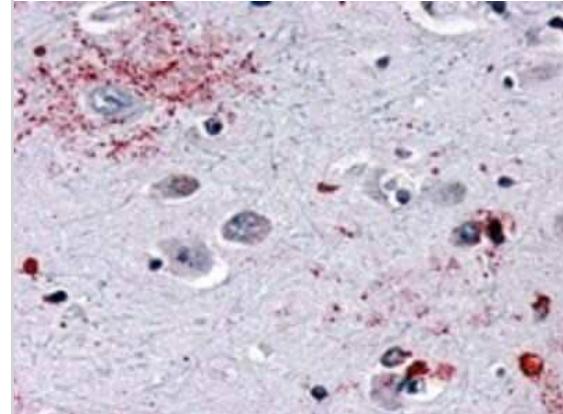


Immunohistochemistry-Paraffin: Mas Antibody [NLS1531] - Representative immunolocalisation images of AT1R, AT2R, MasR, and ACE2 in adult WKY rats and aged WKY rats. Mean data for aortic expression of the AT1R expressed as relative fluorescent units in adult (n = 5) and aged (n = 4) WKY rats. \*\*\*P < 0.001 versus adult WKY rats. Image collected and cropped by CiteAb from the following publication (<https://www.hindawi.com/journals/ijht/2012/192567/>), licensed under a CC-BY license.

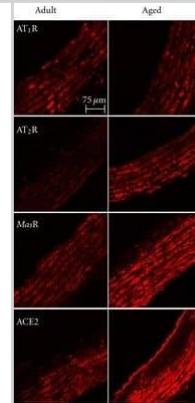


(a)

Immunohistochemistry-Paraffin: Mas Antibody [NLS1531] - Analaysis of Brain, Neurons and Glia using NLS1531 at 15 ug/ ml.

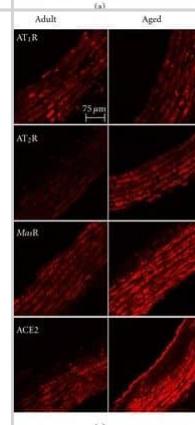


(a) Representative immunolocalisation images of AT1R, AT2R, MasR, and ACE2 in adult WKY rats and aged WKY rats. Mean data for aortic expression of the (b) AT1R, (c) AT2R, (d) MasR, and (e) ACE2 expressed as relative fluorescent units in adult (n = 5) and aged (n = 4) WKY rats. \*\*\*P < 0.001 versus adult WKY rats.



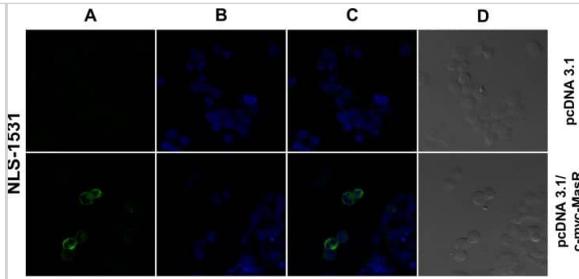
(a)

Immunocytochemistry/ Immunofluorescence: Mas Antibody - BSA Free [NLS1531] - (a) Representative immunolocalisation images of AT1R, AT2R, MasR, & ACE2 in adult WKY rats & aged WKY rats. Mean data for aortic expression of the (b) AT1R, (c) AT2R, (d) MasR, & (e) ACE2 expressed as relative fluorescent units in adult (n = 5) & aged (n = 4) WKY rats. \*\*\*P < 0.001 versus adult WKY rats. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/22187625/>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

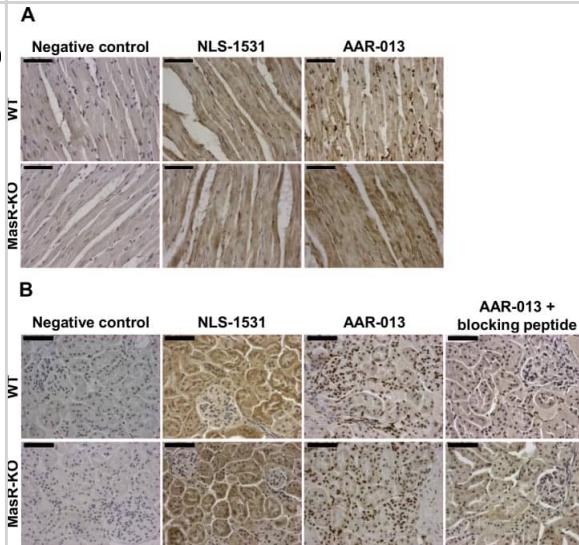


(a)

Immunocytochemistry/ Immunofluorescence: Mas Antibody - BSA Free [NLS1531] - Immunofluorescence studies in HEK293T cells overexpressing c-myc tagged MasR using MasR antibodies. Images of fluorescence signal corresponding to secondary cyanine (Cy3)-conjugated antibody (A), nuclear Hoechst 33258 staining (B), merged images (C) & bright field (D) are shown. In cells transfected with the pcDNA 3.1/c-myc-MasR construct, antibodies NLS-1531 & sc-54682 generated a similar staining pattern to that generated with the anti c-myc antibody. No staining was observed with any of these antibodies in cells transfected with the empty vector pcDNA 3.1. Antibody sc-135063 was capable of staining the plasma membrane of cells overexpressing the MasR but also generated widespread signals in cells transfected with the empty vector. For antibody AAR-013 there was no staining associated with the cell membrane. Intense immunocytochemical staining of identical distribution & intensity was revealed in cells transfected with the empty vector & those transfected with the c-myc-MasR construct. Images are representative of 3 independent experiments. Image collected & cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0183278>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunohistochemistry: Mas Antibody - BSA Free [NLS1531] - Immunohistochemistry in heart & kidney from wild-type (WT) & MasR-KO mice. Negative controls performed by omitting the primary antibody demonstrated minimal background immunostaining in heart (A) & kidney (B) sections. (A) In heart sections, NLS-1531 antibody stained predominantly the cytoplasm of cardiomyocytes with similar intensity in WT & MasR-KO hearts. The AAR-013 antibody stained the cardiomyocytes nucleus & weaker staining was observed in their cytoplasm. The same pattern was found in heart sections of MasR-KO mice. (B) In kidney sections, for NLS-1531 antibody, staining was mostly restricted to cytoplasm of numerous tubules cells with similar intensity in WT & MasR-KO kidneys. Antibody AAR-013 stained most intensely tubules cells nucleus & weaker staining was observed in their cytoplasm. Glomeruli were also stained positively. The same pattern was found in kidney sections of MasR-KO. Preincubation of the AAR-013 antibody with the blocking peptide provided by the vendors eliminated the immunohistochemical nuclear staining both in WT & MasR-KO mice kidney sections. Images are representative of n = 3. Bar, 50 µm. Image collected & cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0183278>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Burghi V, Fernandez NC, Gandola YB et al. Validation of commercial Mas receptor antibodies for utilization in Western Blotting, immunofluorescence and immunohistochemistry studies PLoS ONE 2017-08-16 [PMID: 28813513] (ICC/IF, Human)

Singh N, Joshi S, Guo L et al. ACE2/Ang-(1-7)/Mas Axis Stimulates Vascular-Repair Relevant Functions of CD34+ Cells. Am. J. Physiol. Heart Circ. Physiol. 2015-09-18 [PMID: 26386115] (FLOW, Human)

Jarajapu YP, Bhatwadekar AD, Caballero S et al. Activation of the ACE2/Angiotensin-(1-7)/Mas Receptor Axis Enhances the Reparative Function of Dysfunctional Diabetic Endothelial Progenitors Diabetes 2013-04-01 [PMID: 23230080]

Bosnyak S, Widdop RE, Denton KM, Jones ES. Differential Mechanisms of Ang (1-7)-Mediated Vasodepressor Effect in Adult and Aged Candesartan-Treated Rats. International Journal of Hypertension 2012-2012:1-9. [PMID: 22187625]

## Procedures

### Protocol specific for MAS1 Antibody (NLS1531)

Mas Antibody:

Immunohistochemistry

1. Prepare tissue with formalin fixation and by embedding it in paraffin wax.
2. Make 4-um sections and place on pre-cleaned and charged microscope slides.
3. Heat in a tissue-drying oven for 45 minutes at 60 degrees Celcius.
4. Deparaffinize the tissues by wash drying the slides in 3 changes of xylene approximately 5 minutes each @ RT.
5. Rehydrate the tissues by washing the slides in 3 changes of 100% alcohol approximately 3 minutes each @ RT.
6. Wash the slides in 2 changes of 95% alcohol approximately 3 minutes each @ RT.
7. Wash the slides in 1 change of 80% alcohol approximately 3 minutes @ RT.
8. Rinse the slides in gentle running distilled water approximately 5 minutes @ RT.
9. Perform antigen retrieval by steaming the slides in 0.01M sodium citrate buffer (pH 6.0) @ 99-100 degrees Celcius for 20 minutes.
10. Remove the slides from the heat and let stand in buffer @ RT for 20 minutes.
11. Rinse the slides in 1X TBS-T for 1 minute @ RT.

\*\*Do not allow the tissues to dry at any time during the staining procedure\*\*

12. Begin the immunostaining by applying a universal protein block approximately 20 minutes @ RT.
13. Drain protein block from the slides and apply the diluted primary antibody approximately 45 minutes @ RT.
14. Rinse the slide in 1X TBS-T approximately 1 minute @ RT.
15. Apply a biotinylated anti-rabbit IgG (H+L) secondary approximately 30 minutes @ RT.
16. Rinse the slide in 1X TBS-T approximately 1 minute at RT.
17. Apply an alkaline phosphatase streptavidin approximately 30 minutes at RT.
18. Rinse the slide in 1X TBS-T approximately 1 minute at RT.
19. Apply an alkaline phosphatase chromagen substrate approximately 30 minutes at RT.
20. Rinse the slide in distilled water approximately 1 minute @ RT.

\*\*This method should only be used if the chromagen substrate is alcohol insoluble (ie: Vector Red, DAB)\*\*

21. Dehydrate the tissue by washing the slides in 2 changes of 80% alcohol approximately 1 minute each @ RT.
22. Wash the slides in 2 changes of 95% alcohol approximately 1 minute each @ RT.
23. Wash the slides in 3 changes of 100% alcohol approximately 1 minute each @ RT.
24. Wash the slides in 3 changes of xylene approximately 1 minute each @ RT.
25. Apply cover slip.



## 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](http://www.novusbio.com)  
Technical Support: [nb-technical@bio-techne.com](mailto:nb-technical@bio-techne.com)  
Orders: [nb-customerservice@bio-techne.com](mailto:nb-customerservice@bio-techne.com)  
General: [novus@novusbio.com](mailto:novus@novusbio.com)

## Products Related to NLS1531

NLS1531PEP-0.1mg	Mas 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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