

# Product Datasheet

## MMP-3 Antibody - BSA Free NB100-91878

Unit Size: 0.1 ml

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

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### Publications: 11

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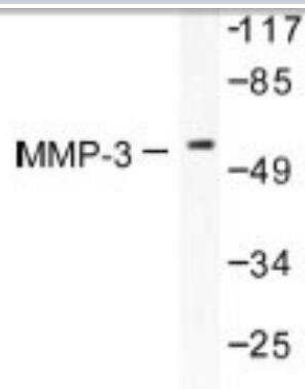
**NB100-91878**

MMP-3 Antibody - BSA Free

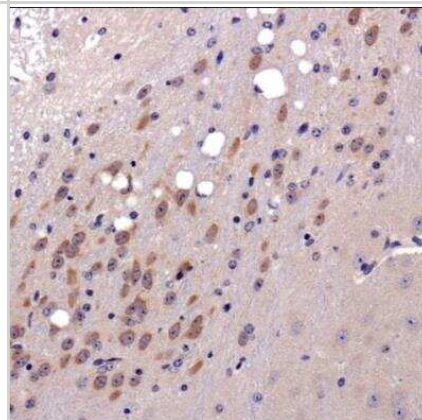
<b>Product Information</b>	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	PBS
<b>Target Molecular Weight</b>	53 kDa
<b>Product Description</b>	
<b>Host</b>	Rabbit
<b>Gene ID</b>	4314
<b>Gene Symbol</b>	MMP3
<b>Species</b>	Human, Mouse, Rat
<b>Reactivity Notes</b>	Human, Mouse and Rat.
<b>Marker</b>	Mesenchymal Cells Marker
<b>Immunogen</b>	A synthetic peptide made to an C-terminal portion of the human MMP3 protein (between residues 400-477) [UniProt P08254]
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Immunohistochemistry, Immunohistochemistry-Paraffin
<b>Recommended Dilutions</b>	Western Blot 1:500- 1:1000, Immunohistochemistry 1:50-1:200, Immunohistochemistry-Paraffin 1:50-1:100
<b>Application Notes</b>	The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

**Images**

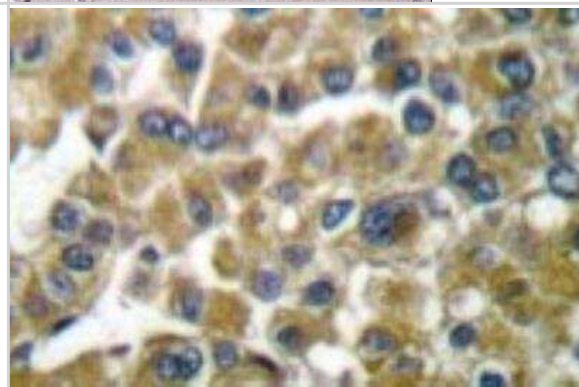
Western Blot: MMP-3 Antibody [NB100-91878] - Analysis of MMP-3 (S453) antibody in extracts from 293 cells.



Immunohistochemistry-Paraffin: MMP-3 Antibody [NB100-91878] - Analysis of mouse brain.



Immunohistochemistry-Paraffin: MMP-3 Antibody [NB100-91878] - Analyzes of paraffin-embedded human breast carcinoma tissue.



## Publications

- Kollaras V, Valsami G, Lambropoulou M et al. Effect of silibinin on the expression of MMP2, MMP3, MMP9 and TIMP2 in kidney and lung after hepatic ischemia/reperfusion injury in an experimental rat model *Acta Cirúrgica Brasileira* 2021-11-08 [PMID: 34755764] (Immunohistochemistry)
- Huang Y, Huang L, Li L et al. MicroRNA-25-3p therapy for intervertebral disc degeneration by targeting the IL-1 $\beta$ /ZIP8/MTF1 signaling pathway with a novel thermo-responsive vector *Annals of Translational Medicine* 2020-12-14 [PMID: 33313245] (Western Blot)
- Wang J, Huang L, Yang X Et al. The Regulatory Effect of MicroRNA-101-3p on Disc Degeneration by the STC1/VEGF/MAPK Pathway *Oxidative medicine and cellular longevity* 2021-10-05 [PMID: 34650661] (WB, Human)
- Ma X, Zhang Z, Shen M et al. Changes of type II collagenase biomarkers on IL-1 $\beta$ -induced rat articular chondrocytes *Experimental and therapeutic medicine* 2021-06-01 [PMID: 33850554] (WB, Rat)
- Boukhedouni N, Martins C, Darrigade AS et al. Type-1 cytokines regulate MMP-9 production and E-cadherin disruption to promote melanocyte loss in vitiligo *JCI Insight* 2020-06-04 [PMID: 32369451] (IHC-P, Human)
- Lin D, Alberton P, Delgado Caceres M et al. Loss of tenomodulin expression is a risk factor for age-related intervertebral disc degeneration *Aging Cell* 2020-02-21 [PMID: 32083813] (IF/IHC, Mouse)
- De Cunto G, Lamberti A, de Santi MM et al. Middermal Elastolysis: Dermal Fibroblasts Cooperate with Inflammatory Cells to the Elastolytic Disorder *Mediators Inflamm.* 2017-09-16 [PMID: 29097850] (IF/IHC, Human)
- Zhuo W, Li B, Zhang D et al. Activation of G-protein-coupled bile acid receptor Gpbar1 (TGR5) inhibits degradation of type II collagen and aggrecan in human chondrocytes *Eur. J. Pharmacol.* 2019-05-07 [PMID: 31075239] (Human)
- Mirastschijski U, Dinesh N, Baskaran S et al. Novel specific human and mouse stromelysin-1 (MMP-3) and stromelysin-2 (MMP-10) antibodies for biochemical and immunohistochemical analyses *Wound Repair Regen* 2019-02-14 [PMID: 30761682] (WB, Human)
- Huang W, Ao P, Li J et al. Autophagy protects advanced glycation end product-induced apoptosis and. *BioMed Research International.* 2017-01-16 [PMID: 28265573] (WB, Rat)
- Wu Y Lee MJ Ido Y, Fried SK. High fat diet-induced obesity regulates MMP3 to modulate depot- and sex-dependent adipose expansion in C57BL/6J mice. *Am. J. Physiol. Endocrinol. Metab.* 2016-11-22 [PMID: 27879248] (WB, Mouse)

## Procedures

### Western blot Protocol for MMP3 Antibody (NB100-91878)

MMP-3 Antibody:

Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute rabbit anti-MMP3 primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

### Immunohistochemistry Protocol for MMP3 Antibody (NB100-91878)

MMP-3 Antibody:

Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.

Staining:

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.





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### **Products Related to NB100-91878**

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NB100-91878V	MMP-3 Antibody [DyLight 405]

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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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