

Product Datasheet

MMP-2 Antibody (8B4) - (Pro and Active) - BSA Free NB200-114

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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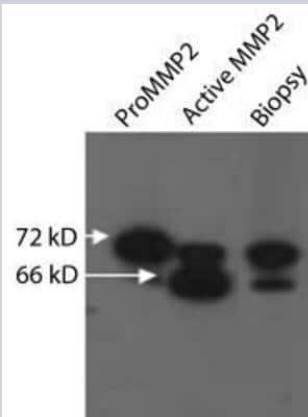
NB200-114

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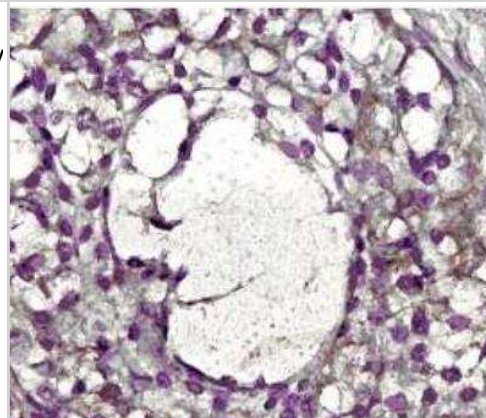
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	8B4
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	PBS
Product Description	
Host	Mouse
Gene ID	4313
Gene Symbol	MMP2
Species	Human, Mouse, Rat
Specificity/Sensitivity	This is specific for pro and active MMP2.
Immunogen	Activated recombinant human MMP-2. [Uniprot: P08253]
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1-2ug/ml, ELISA 0.03 ug/ml, Immunohistochemistry 2 ug/ml, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunoprecipitation, Immunohistochemistry-Paraffin 2 ug/ml, Immunohistochemistry-Frozen 2ug/ml, Knockdown Validated reported in scientific literature (PMID 31439546)
Application Notes	In Western blot, a band is seen at 70 and 62kDa representing the MMP2 band-pair. 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-2 Antibody (8B4) - (Pro and Active) [NB200-114] - Analysis of MMP2 expression in ProMMP2 (1), Active MMP2 (2) and human pressure ulcer biopsy (3).



Immunohistochemistry-Paraffin: MMP-2 Antibody (8B4) - (Pro and Active) [NB200-114] - Detection of MMP-2 staining in FFPE human ovary tissue. Primary antibody was used at 2.5 ug/ml with the avidin-biotin-peroxidase detection method.



Publications

Depanwita Saha, Debarpan Mitra, Neyaz Alam, Sagar Sen, Saunak Mitra Mustafi, Pradip K Majumder, Biswanath Majumder, Nabendu Murmu Lupeol and Paclitaxel cooperate in hindering hypoxia induced vasculogenic mimicry via suppression of HIF-1 α -EphA2-Laminin-5 γ 2 network in human oral cancer. *Journal of cell communication and signaling* 2023-09-01 [PMID: 36063341]

Thuy Nguyen Thi, Hien Duong Thanh, Van-Tan Nguyen, Se-Young Kwon, Changjong Moon, Eu Chang Hwang, Chaeyong Jung Complement regulatory protein CD46 promotes bladder cancer metastasis through activation of MMP9 *International Journal of Oncology* 2024-07-01 [PMID: 38847230]

Sun DP, Huang HY, Chou CL et al. Punicalagin is cytotoxic to human colon cancer cells by modulating cell proliferation, apoptosis, and invasion *Human & experimental toxicology* 2023-11-07 [PMID: 37933160] (WB, Human)

Gerwinn T, Salemi S, Schori LJ et al. Improved contractile potential in detrusor microtissues from pediatric patients with end stage lower urinary tract dysfunction *Frontiers in Cell and Developmental Biology* 2022-10-04 [PMID: 36268506] (Simple Western, Immunocytochemistry/ Immunofluorescence)

Damerell V, Ambele MA, Salisbury S et al. The c-Myc/TBX3 Axis Promotes Cellular Transformation of Sarcoma-Initiating Cells *Frontiers in Oncology* 2022-01-25 [PMID: 35145908] (Western Blot)

Neff LS, Zhang Y, Van Laer AO et al. Mechanisms that limit regression of myocardial fibrosis following removal of left ventricular pressure overload *American journal of physiology. Heart and circulatory physiology* 2022-07-01 [PMID: 35657618]

DIACONU GS, MIHALACHE CG, POPESCU G Clinical and pathological considerations in lumbar herniated disc associated with inflammatory lesions *rjme.ro* 2021-01-01 [PMID: 35673814] (IF/IHC, Human)

PREDA SA, PREDESCU AM, STOICA LE Histopathological and immunohistochemical changes of the marginal periodontium in patients with Turner syndrome changes 2021-01-01 [PMID: 34609427] (IF/IHC, Human)

Betsou A, Lambropoulou M, Georgakopoulou AE et al. The hepatoprotective effect of silibinin after hepatic ischemia/reperfusion in a rat model is confirmed by immunohistochemistry and qRT-PCR *The Journal of pharmacy and pharmacology* 2021-04-13 [PMID: 33847359]

Perek B, Kowalska K et al. Infiltration of CD68+ cells correlates positively with matrix metalloproteinase 2 expression in the arteries used as aortocoronary bypass grafts. Possible clinical implications. *Cardiol J* 2019-06-09 [PMID: 31489609] (IF/IHC, Human)

Shang S, Ji X, Zhang L et al. Macrophage ABHD5 suppresses NF-kappa B-dependent matrix metalloproteinase expression and cancer metastasis *Cancer Res.* 2019-08-22 [PMID: 31439546] (KD, Mouse)

Qian J, Dong A, Kong M et al. Suppression of type 1 Insulin-like growth factor receptor expression by small interfering RNA inhibits A549 human lung cancer cell invasion in vitro and metastasis in xenograft nude mice. *Acta Biochim Biophys Sin (Shanghai).* [PMID: 17277889] (WB, Mouse)

More publications at <http://www.novusbio.com/NB200-114>

Procedures

IHC (Paraffin) Protocol Specific for MMP2 Antibody (NB200-114)

For IHC on Paraffin-Embedded Tissue Sections:

1. Deparaffinize in xylene. 3 changes at 10 min each.
2. Hydrate in 100% EtOH for 5 min (2X).
3. Quench endogenous peroxidase. 30 min in 1% H₂O₂ in methanol. (Make fresh each time: 6 ml 30% H₂O₂+ 194 ml methanol).
4. Hydrate to H₂O in graded alcohols.
 - a. 5 min in 95%.
 - b. 5 min in 70%
 - c. 5 min in distilled H₂O.
5. Perform antigen retrieval (Antigen Retrieval; Dako #S1700) with heating as described by manufacturer. Fill plastic Coplin jar with 50 ml Antigen Retrieval buffer. Add slides to jar when temperature reaches 95-99C start timing. Heat for 30 min. After heating, let slides cool in jar for 15 min.
6. Wash slides in PBS for 5 min (2x).
7. Infiltrate sections with PBS + 0.5% Triton X100 for 10 min, then rinse twice in PBS.
8. Block for 1 hr. at room temp in Blocking buffer- (PBS + 10% goat serum).
9. Aspirate blocking buffer. Apply MMP2/8B4 IgG diluted to 5 ug/ml in Blocking buffer. Incubate overnight at 4C (or >2 hr at 37C).
10. Rinse 3X in PBS for 10 min each.
11. Apply 2 degrees antibody. Dilute biotin conjugated goat anti-mouse 1:500 (Dako # E0433) in Blocking buffer.
12. Incubate for 2 hr. at room temperature.
13. Rinse 3X in PBS for 10 min each.
14. Prepare Avidin-biotin-peroxidase by combining each component at 1:50 in PBS + 0.1% Triton X100. Gently mix and react for 30 min. Prior to use, dilute the complexed mixture 1:5 with PBS + 0.1% BSA. Apply to sections and incubate for 2 hr at room temp.
15. Rinse in 3X in PBS for 15 min each.
16. Develop with DAB. Dissolved 1.5 mg diaminobenzidine-(HCl)₄ in 3 ml of PBS, then add 2 ul of 30% hydrogen peroxide. Filter through a 0.2 um filter immediately before use. Develop for 15 min.
17. Rinse in water for 5 min. Counterstain for nuclei (e.g., hematoxylin) as desired.
18. Dehydrate through graded ethanol, clear in 100% ethanol and xylene (1:1 solution) and then 100% xylene. Coverslip with Permount.





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

Products Related to NB200-114

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NB200-114G	MMP-2 Antibody (8B4) [DyLight 488]

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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