

# Product Datasheet

## MMP-9 Antibody (S51-82) - BSA Free NBP2-59699

Unit Size: 100 ug

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

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**NBP2-59699**

MMP-9 Antibody (S51-82) - BSA Free

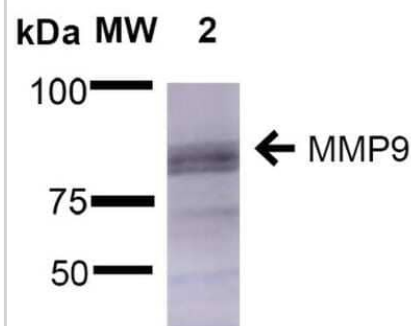
Product Information	
Unit Size	100 ug
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	S51-82
Preservative	0.09% Sodium Azide
Isotype	IgG2a
Purity	Protein G purified
Buffer	PBS (pH 7.4), 50% Glycerol

Product Description	
Description	Novus Biologicals Mouse MMP-9 Antibody (S51-82) - BSA Free (NBP2-59699) is a monoclonal antibody validated for use in IHC, WB, Flow, ICC/IF and IP. Anti-MMP-9 Antibody: Cited in 1 publication. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	4318
Gene Symbol	MMP9
Species	Human, Mouse, Rat
Specificity/Sensitivity	Detects ~92kDa and ~82kDa (pro and active forms).
Immunogen	Fusion protein amino acids 1-708 (full length) of rat MMP9

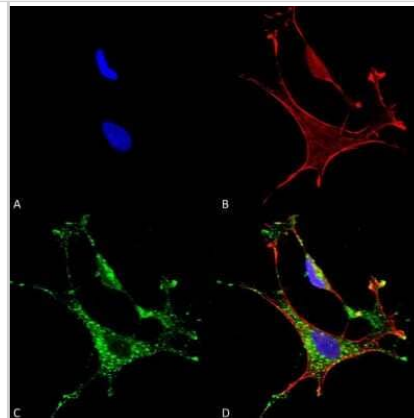
Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, Flow Cytometry, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:100, Immunoprecipitation
Application Notes	1 ug/ml of this antibody was sufficient for detection of MMP9 in 20 ug of COS-1 cells (lysate) transfected with human MMP9 by colorimetric immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

**Images**

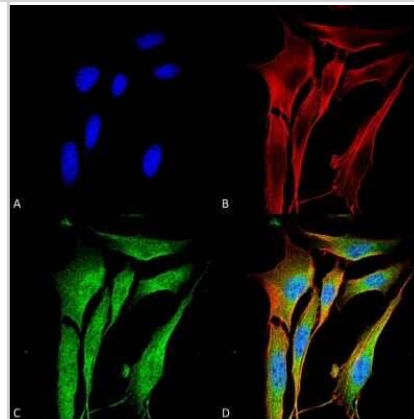
Western Blot: MMP-9 Antibody (S51-82) [NBP2-59699] - Western Blot analysis of Rat Brain showing detection of ~92 kDa and ~82 kDa (pro and active) MMP-9 protein using Mouse Anti-MMP-9 Monoclonal Antibody, Clone S51-82 (NBP2-59699). Lane 1: Molecular Weight Ladder (MW). Lane 2: Rat Brain. Load: 15 ug. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-MMP-9 Monoclonal Antibody (NBP2-59699) at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:2000 for 60 min at RT. Color Development: ECL solution for 5 min at RT. Predicted/Observed Size: ~92 kDa and ~82 kDa (pro and active).



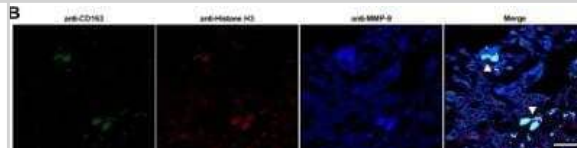
Immunocytochemistry/Immunofluorescence: MMP-9 Antibody (S51-82) [NBP2-59699] - Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-MMP-9 Monoclonal Antibody, Clone S51-82 (NBP2-59699). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-MMP-9 Monoclonal Antibody (NBP2-59699) at 1:50 for overnight at 4C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) MMP-9 Antibody (D) Composite.



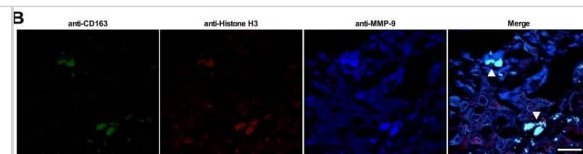
Immunocytochemistry/Immunofluorescence: MMP-9 Antibody (S51-82) [NBP2-59699] - Analysis using Mouse Anti-MMP9 Monoclonal Antibody, Clone S51-82 . Tissue: NIH 3T3 (Mouse Fibroblast cell line). Species: Mouse. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-MMP9 Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:200 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60 min at RT, 5 min at RT. Localization: Cytoplasm . Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) MMP9 Antibody (D) Composite.



Immunocytochemistry/Immunofluorescence: MMP-9 Antibody (S51-82) [NBP2-59699] - Identification of MET-like structures within human fetal membrane tissues infected with GBS ex vivo. Fetal membrane tissues were excised from healthy, term placental tissues from women undergoing routine cesarean section. (A and B) Fetal membrane tissues were then infected with GBS on the choriodecidual surface for 48 h prior to fixation and confocal microscopy. Fixed and paraffin-embedded fetal membranes were stained with conjugated primary antibodies against CD163, histone H3, and MMP-9. CD163-positive cells within the membrane tissue are seen extruding contents that stain positive for histones and MMP-9 consistent with METs (white arrowheads). Bars represent 20 um. Image collected and cropped by CiteAb from the following publication (<https://mbio.asm.org/lookup/doi/10.1128/mBio.02084-18>) licensed under a CC-BY license.



Identification of MET-like structures within human fetal membrane tissues infected with GBS *ex vivo*. Fetal membrane tissues were excised from healthy, term placental tissues from women undergoing routine cesarean section. (A and B) Fetal membrane tissues were then infected with GBS on the choriodecidual surface for 48 h prior to fixation and immunohistochemistry (A) or confocal microscopy (B). (A) Fetal membrane tissues were stained with hematoxylin and eosin (H & E), and representative images are shown at a magnification of  $\times 4$ . The area within the red box is shown in sections stained with anti-GBS, anti-CD163, or anti-histone H3 antibodies and visualized by immunohistochemistry. GBS cells are able to invade from the choriodecidual surface (CD) toward the amnion epithelium (AE). Macrophages are shown in the area of GBS infection, and macrophages with extracellular histone staining (rightmost image, insert with  $\times 40$  magnification) are demonstrated in an area that is also stained with the macrophage marker CD163 (red boxes). Bars represent 100  $\mu\text{m}$ . (B) Fixed and paraffin-embedded fetal membranes were stained with conjugated primary antibodies against CD163, histone H3, and MMP-9. CD163-positive cells within the membrane tissue are seen extruding contents that stain positive for histones and MMP-9 consistent with METs (white arrowheads). Bars represent 20  $\mu\text{m}$ . Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/30459195>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Doster R, Sutton J, Rogers L et al. *Streptococcus agalactiae* induces placental macrophages to release extracellular traps loaded with tissue remodeling enzymes via an oxidative-burst-dependent mechanism. *bioRxiv*. 2018-10-11 [PMID: 30459195] (ICC/IF, Human)



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### **Products Related to NBP2-59699**

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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]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)

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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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