

# Product Datasheet

## Malondialdehyde Antibody (11E3) - BSA Free NBP2-59367

Unit Size: 100 ug

Store at -20C.

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



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### Publications: 4

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**NBP2-59367**

Malondialdehyde Antibody (11E3) - BSA Free

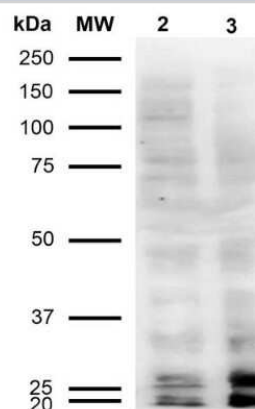
Product Information	
<b>Unit Size</b>	100 ug
<b>Concentration</b>	Please see the vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Store at -20C.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	11E3
<b>Preservative</b>	0.09% Sodium Azide
<b>Isotype</b>	IgG1
<b>Purity</b>	Protein G purified
<b>Buffer</b>	PBS (pH 7.4), 50% Glycerol

Product Description	
<b>Description</b>	Novus Biologicals Mouse Malondialdehyde Antibody (11E3) - BSA Free (NBP2-59367) is a monoclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-Malondialdehyde Antibody: Cited in 4 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Mouse
<b>Species</b>	Non-species specific
<b>Specificity/Sensitivity</b>	Specific for Malondialdehyde conjugated proteins. Does not detect free Malondialdehyde. Does not cross-react with Acrolein, Crotonaldehyde, Hexanoyl Lysine, 4-Hydroxy-2-hexenal, 4-Hydroxy nonenal, or Methylglyoxal modified proteins.
<b>Immunogen</b>	Synthetic Malondialdehyde modified Keyhole Limpet Hemocyanin (KLH).

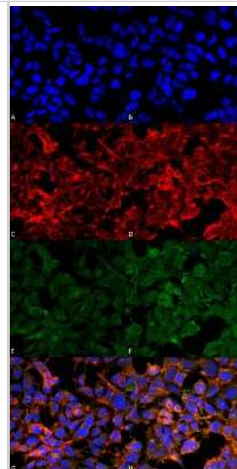
Product Application Details	
<b>Applications</b>	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
<b>Recommended Dilutions</b>	Western Blot 1:1000, ELISA 1:1000, Immunohistochemistry 1:100, Immunocytochemistry/ Immunofluorescence 1:50

**Images**

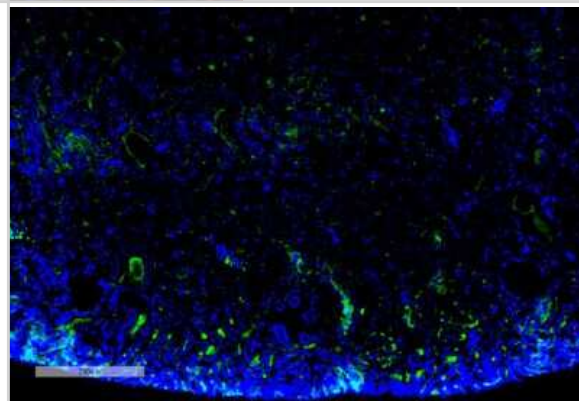
Western Blot: Malondialdehyde Antibody (11E3) [NBP2-59367] - Western Blot analysis of Human Cervical cancer cell line (HeLa) lysate showing detection of Malondialdehyde protein using Mouse Anti-Malondialdehyde Monoclonal Antibody, Clone 11E3 (NBP2-59367). Lane 1: Molecular Weight Ladder (MW). Lane 2: HeLa cell lysate. Lane 3: H<sub>2</sub>O<sub>2</sub> treated HeLa cell lysate. Load: 12 ug. Block: 5% Skim Milk in TBST. Primary Antibody: Mouse Anti-Malondialdehyde Monoclonal Antibody (NBP2-59367) 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 in RT.



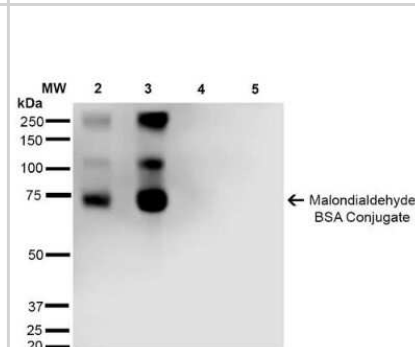
**Immunocytochemistry/Immunofluorescence: Malondialdehyde Antibody (11E3) [NBP2-59367]** - Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Malondialdehyde Monoclonal Antibody, Clone 11E3 (NBP2-59367). Tissue: Embryonic kidney epithelial cell line (HEK293). Species: Human. Fixation: 5% Formaldehyde for 5 min. Primary Antibody: Mouse Anti-Malondialdehyde Monoclonal Antibody (NBP2-59367) at 1:50 for 30-60 min at RT. Secondary Antibody: Goat Anti-Mouse Alexa Fluor 488 at 1:1500 for 30-60 min at RT. Counterstain: Phalloidin Alexa Fluor 633 F-Actin stain; DAPI (blue) nuclear stain at 1:250, 1:50000 for 30-60 min at RT. Magnification: 20X (2X Zoom). (A,C,E,G) - Untreated. (B,D,F,H) - Cells cultured overnight with 50 M H<sub>2</sub>O<sub>2</sub>. (A,B) DAPI (blue) nuclear stain. (C,D) Phalloidin Alexa Fluor 633 F-Actin stain. (E,F) Malondialdehyde Antibody. (G,H) Composite. Courtesy of: Dr. Robert Burke, University of Victoria.



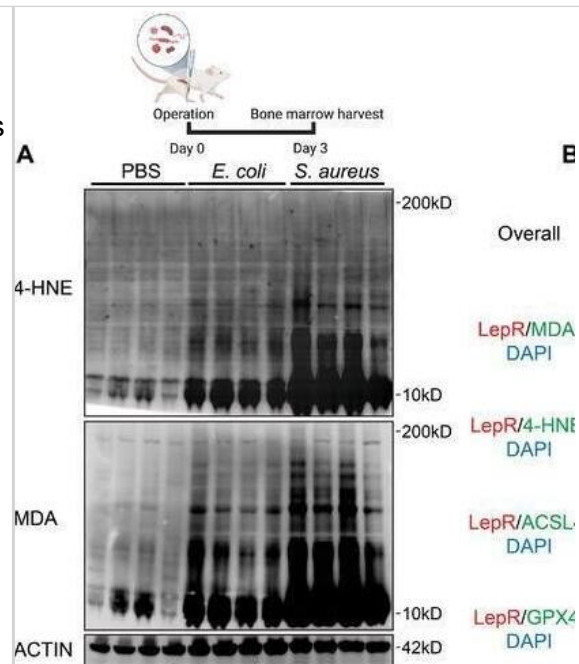
**Immunohistochemistry: Malondialdehyde Antibody (11E3) [NBP2-59367]** - Immunohistochemistry analysis using Mouse Anti-Malondialdehyde Monoclonal Antibody, Clone 11E3 (NBP2-59367). Tissue: Kidney. Species: Mouse. Primary Antibody: Mouse Anti-Malondialdehyde Monoclonal Antibody (NBP2-59367) at 1:100 for Overnight at 4C, then 30 min at 37C. Secondary Antibody: Goat Anti-Mouse IgG (H+L): FITC for 45 min at 37C. Counterstain: DAPI for 3 min at RT. Magnification: 10X.



**Western Blot: Malondialdehyde Antibody (11E3) [NBP2-59367]** - Western Blot analysis of Malondialdehyde-BSA Conjugate showing detection of 67 kDa Malondialdehyde protein using Mouse Anti-Malondialdehyde Monoclonal Antibody, Clone 11E3 (NBP2-59367). Lane 1: Molecular Weight Ladder (MW). Lane 2: Malondialdehyde-BSA (0.5 ug). Lane 3: Malondialdehyde-BSA (2.0 ug). Lane 4: BSA (0.5 ug). Lane 5: BSA (2.0 ug). Block: 5% Skim Milk in TBST. Primary Antibody: Mouse Anti-Malondialdehyde Monoclonal Antibody (NBP2-59367) 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 in RT. Predicted/Observed Size: 67 kDa.



*S. aureus* and *E. coli* infections induced lipid peroxides accumulation in infected bone microenvironment and BMSCs. A) Lipid peroxidation levels in bone marrow on Day 3 post-infection in murine osteomyelitis model induced by *S. aureus* and *E. coli* were determined by WB analysis of 4-HNE and MDA protein modifications. Each group contained four mice. B) Representative tissue immunofluorescence images of LepR, MDA, 4-HNE, ACSL4, GPX4 in the uninfected murine femur and implant-associated bone infection model induced by *S. aureus* and *E. coli*. Scale bar = 50  $\mu$ m. C) The schematic route of animal experiments and gating strategy were depicted. D) Lipid peroxide regulation by *S. aureus* and *E. coli* infections and Fer $\square$ 1 in CD45-CD31-Ter119-LepR+ BMSCs were analyzed in murine osteomyelitis model by Liperfluor staining and analyzed by flow cytometry. E,F) Quantification of median fluorescent intensity in flow cytometry analysis in (D). Values are means  $\pm$  SDs. Each group contained six mice. Multiple comparison was performed by one-way analysis of variance (ANOVA) with Tukey's post-hoc analysis. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/39166412>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Yuan K, Yang Y, Lin Y et al. Targeting Bacteria-Induced Ferroptosis of Bone Marrow Mesenchymal Stem Cells to Promote the Repair of Infected Bone Defects *Advanced Science* 2024-08-21 [PMID: 39166412]

Belinda J Hernandez, Nikolai P Skiba, Karolina Plössl, Madison Strain, Yutao Liu, Daniel Grigsby, Una Kelly, Martha A Cady, Vikram Manocha, Arvydas Maminishkis, TeddiJo Watkins, Sheldon S Miller, Allison Ashley-Koch, W Daniel Stamer, Bernhard H F Weber, Catherine Bowes Rickman, Mikael Klingeborn Polarized Desmosome and Hemidesmosome Shedding via Small Extracellular Vesicles is an Early Indicator of Outer Blood-Retina Barrier Dysfunction. *Journal of extracellular biology* 2023-10-01 [PMID: 38108061]

Focken J, Scheurer J, Jäger A et al. Neutrophil extracellular traps enhance *S. aureus* skin colonization by oxidative stress induction and downregulation of epidermal barrier genes *Cell reports* 2023-09-19 [PMID: 37733587] (IHC, Mouse)

Song SH, Han D, Park K et al. Bone morphogenetic protein-7 attenuates pancreatic damage under diabetic conditions and prevents progression to diabetic nephropathy via inhibition of ferroptosis *Frontiers in endocrinology* 2023-05-24 [PMID: 37293506] (IHC-P, Mouse)



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### **Products Related to NBP2-59367**

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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]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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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.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

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

