

# Product Datasheet

## Methylglyoxal Antibody (9E7)

### NBP2-59368

Unit Size: 100 ug

Store at -20C.

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Updated 7/18/2022 v.20.1

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**NBP2-59368****Methylglyoxal Antibody (9E7)**

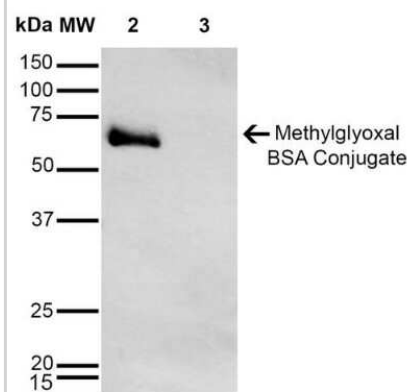
Product Information	
Unit Size	100 ug
Concentration	1 mg/ml
Storage	Store at -20C.
Clonality	Monoclonal
Clone	9E7
Preservative	0.09% Sodium Azide
Isotype	IgG2a
Purity	Protein G purified
Buffer	PBS (pH 7.4), 50% Glycerol

Product Description	
Host	Mouse
Species	Non-species specific
Specificity/Sensitivity	Specific for Methylglyoxal modified proteins. Does not detect free Methylglyoxal. Does not cross-react with Acrolein, Hexanoyl Lysine, Malondialdehyd, 4-Hydroxy-2-hexenal, 4-Hydroxy nonenal, or Crotonaldehyde modified proteins.
Immunogen	Synthetic Methylglyoxal modified Keyhole Limpet Hemocyanin (KLH).

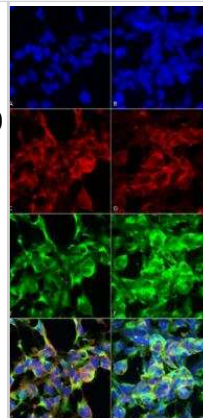
Product Application Details	
Applications	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 1:1000, Flow Cytometry 1:50, ELISA 1:1000, Immunohistochemistry 1:50, Immunocytochemistry/ Immunofluorescence 1:50

**Images**

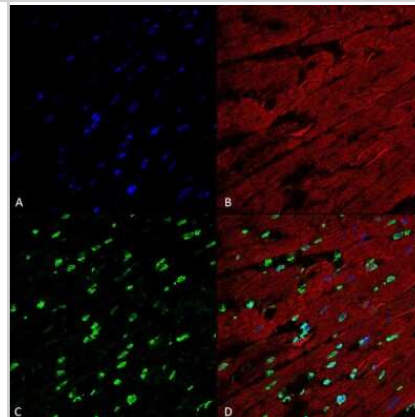
Western Blot: Methylglyoxal Antibody (9E7) [NBP2-59368] - Western Blot analysis of Methylglyoxal-BSA Conjugate showing detection of 67 kDa Methylglyoxal protein using Mouse Anti-Methylglyoxal Monoclonal Antibody, Clone 9E7 (NBP2-59368). Lane 1: Molecular Weight Ladder (MW). Lane 2: Methylglyoxal-BSA. Lane 3: BSA. Load: 0.5 ug. Block: 5% Skim Milk in TBST. Primary Antibody: Mouse Anti-Methylglyoxal Monoclonal Antibody (NBP2-59368) at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:1000 for 60 min at RT. Color Development: ECL solution for 5 min in RT. Predicted/Observed Size: 67 kDa.



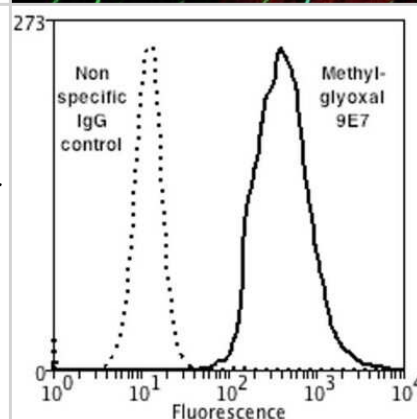
**Immunocytochemistry/Immunofluorescence: Methylglyoxal Antibody (9E7) [NBP2-59368]** - Tissue: Human embryonic kidney cells (HEK293). Fixation: 5% Formaldehyde for 5 min. Primary Antibody: Mouse Anti-Methylglyoxal Monoclonal Antibody (SMC-516) at 1:50 for 30-60 min at RT. Secondary Antibody: Goat Anti-Mouse 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  $\mu$ M H<sub>2</sub>O<sub>2</sub>. (A,B) DAPI (blue) nuclear stain. (C,D) Phalloidin Alex Fluor 633 F-Actin stain. (E,F) Methylglyoxal Antibody. (G,H) Composite. Courtesy of: Dr. Robert Burke, University of Victoria.



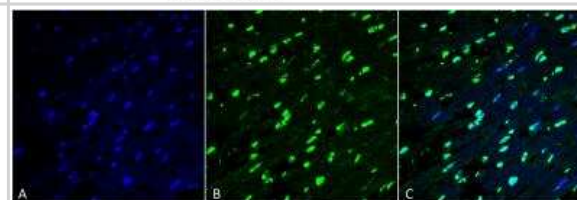
**Immunohistochemistry: Methylglyoxal Antibody (9E7) [NBP2-59368]** - Immunohistochemistry analysis using Mouse Anti-Methylglyoxal Monoclonal Antibody, Clone 9E7 (NBP2-59368). Tissue: Heart. Species: Rat. Fixation: Formalin fixed, paraffin embedded. Primary Antibody: Mouse Anti-Methylglyoxal Monoclonal Antibody (NBP2-59368) at 1:25 for 3 hour at RT. Secondary Antibody: Goat Anti-Mouse IgG: Alexa Fluor 488. Counterstain: DAPI (blue) nuclear stain. Magnification: 63X. (A) DAPI (blue) nuclear stain. (B) Actin (C) Methylglyoxal Antibody (D) Composite.



**Flow Cytometry: Methylglyoxal Antibody (9E7) [NBP2-59368]** - Flow Cytometry analysis using Mouse Anti-Methylglyoxal Monoclonal Antibody, Clone 9E7 (NBP2-59368). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 90% Methanol. Primary Antibody: Mouse Anti-Methylglyoxal Monoclonal Antibody (NBP2-59368) at 1:50 for 30 min on ice. Secondary Antibody: Goat Anti-Mouse: PE at 1:100 for 20 min at RT. Isotype Control: Non Specific IgG. Cells were subject to oxidative stress by treating with 250 M H<sub>2</sub>O<sub>2</sub> for 24 hours.



**Immunohistochemistry: Methylglyoxal Antibody (9E7) [NBP2-59368]** - Tissue: Kidney tissue. Species: Human. Fixation: Formalin fixed, paraffin embedded. Primary Antibody: Mouse Anti-Methylglyoxal Monoclonal Antibody at 1:25 for 1 hour at RT. Secondary Antibody: Goat Anti-Mouse IgG: Alexa Fluor 488. Counterstain: DAPI (blue) nuclear stain. Magnification: 63X. (A) DAPI (blue) nuclear stain. (B) Methylglyoxal Antibody (C) Composite.



## Publications

Nadia Pang, Ashang L. Laiva, Noof Z. Sulaiman, Priya Das, Fergal J. O'Brien, Michael B. Keogh, Avi Domb Dual Glyoxalase-1 and  $\beta$ -Klotho Gene-Activated Scaffold Reduces Methylglyoxal and Reprograms Diabetic Adipose-Derived Stem Cells: Prospects in Improved Wound Healing Pharmaceuticals 2024-02-13 [PMID: 38399319]

Zhang WY, Zhao CM, Wang CS et al. Methylglyoxal accumulation contributes to accelerated brain aging in spontaneously hypertensive rats Free radical biology & medicine 2023-11-18 [PMID: 37984752] (WB)





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### **Products Related to NBP2-59368**

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)

### **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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