



Datasheet for ABIN5067291
anti-HNE antibody (Atto 488)



[Go to Product page](#)

2 Images

Overview

| | |
|--------------|--|
| Quantity: | 100 µg |
| Target: | HNE |
| Host: | Mouse |
| Clonality: | Monoclonal |
| Conjugate: | This HNE antibody is conjugated to Atto 488 |
| Application: | Western Blotting (WB), ELISA, Immunocytochemistry (ICC), Immunofluorescence (IF) |

Product Details

| | |
|---------------|---|
| Immunogen: | Synthetic 4-Hydroxynonenal modified Keyhole Limpet Hemocyanin (KLH). |
| Clone: | 12F7 |
| Isotype: | IgG1 |
| Specificity: | Specific for 4-HNE modified proteins. Does not detect free 4-Hydroxynonenal. Does not X-react with 4-HHE, Acrolein, Crotonaldehyde, Hexanoyl Lysine, MDA, or Methylglyoxal modified proteins. |
| Purification: | Protein G Purified |

Target Details

| | |
|-------------------|---|
| Target: | HNE |
| Alternative Name: | 4-Hydroxynonenal (HNE Products) |
| Target Type: | Chemical |

Target Details

Background: 4-Hydroxy-2-nonenol (4-HNE) is an unsaturated aldehyde derived from lipid peroxidation. 4-HNE is an electrophile and reacts with protein nucleophiles such as cysteine, histine, and lysine (1). Low levels of 4-HNE promote cell survival via cellular antioxidant induction whereas higher levels lead to autophagy, apoptosis, and ultimately necrosis. 4-HNE has been linked to Alzheimer's disease, Parkinson's disease, cancer, cardiovascular diseases, diabetes, and liver disease.

Application Details

Application Notes:

- WB (1:1000)
- ICC/IF (1:50)
- ELISA (1:1000)
- optimal dilutions for assays should be determined by the user.

Comment: A 1:1000 dilution of ABIN5067291 was sufficient for detection of 4-Hydroxynonenal in 0.5 µg of 4-Hydroxynonenal conjugated to BSA by ECL immunoblot analysis using Goat Anti-Mouse IgG:HRP as the secondary Antibody.

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

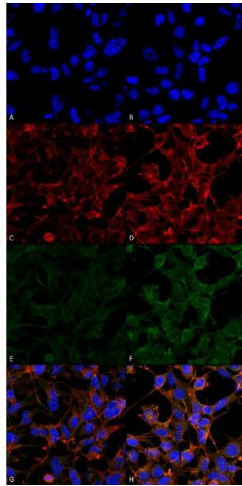
Buffer: PBS pH 7.4, 50 % glycerol, 0.09 % Sodium azide, Storage buffer may change when conjugated

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

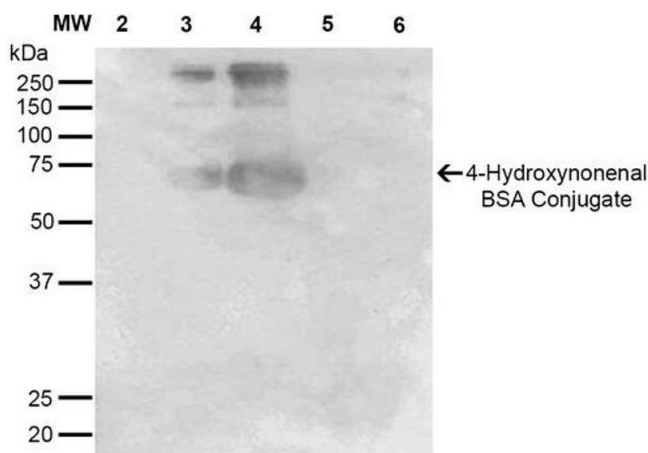
Storage: 4 °C

Storage Comment: Conjugated antibodies should be stored at 4°C



Immunofluorescence (fixed cells)

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-4-Hydroxynonenal Monoclonal Antibody, Clone 12F7 . Tissue: Embryonic kidney cells (HEK293). Species: Human. Fixation: 5% Formaldehyde for 5 min. Primary Antibody: Mouse Anti-4-Hydroxynonenal Monoclonal Antibody 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 μ M H₂O₂. (A,B) DAPI (blue) nuclear stain. (C,D) Phalloidin Alex Fluor 633 F-Actin stain. (E,F) 4-Hydroxynonenal Antibody. (G,H) Composite. Courtesy of: Dr. Robert Burke, University of Victoria.



Western Blotting

Image 2. Western Blot analysis of 4-hydroxy-nonenal-BSA Conjugate showing detection of 67 kDa 4-hydroxy-nonenal-BSA using Mouse Anti-4-hydroxy-nonenal Monoclonal Antibody, Clone 12F7 . Lane 1: Molecular Weight Ladder (MW). Lane 2: BSA (0.5 μ g). Lane 3: 4-hydroxyl nonenal-BSA (0.5 μ g). Lane 4: 4-hydroxy nonenal-BSA (2.0 μ g). Lane 5: 4-hydroxy-2-hexenal (0.5 μ g). Lane 6: 4-hydroxy-2-hexenal (2.0 μ g). Block: 5% Skim Milk in TBST. Primary Antibody: Mouse Anti-4-hydroxy-nonenal Monoclonal Antibody 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.