Datasheet for ABIN5067290

anti-HNE antibody (Atto 390)

2 Images

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Overview

Quantity:	100 µg
Target:	HNE
Reactivity:	Please inquire
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HNE antibody is conjugated to Atto 390
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 Details

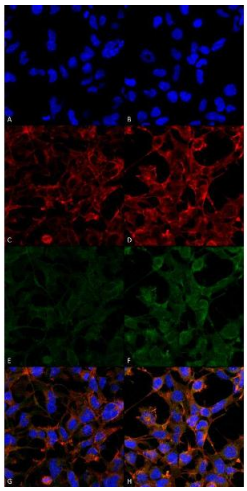
Target Type:	Chemical
Background:	4-Hydroxy-2-nonenol (4-HNE) is an unsaturated aldehyde derived from lipid peroxidation. 4-HNE is an electrophile and reacts with protein nucleophiles such as cysteine, histine, and lysine (1). Low levels of 4-HNE promote cell survival via cellular antioxidant induction 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 ABIN5067290 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

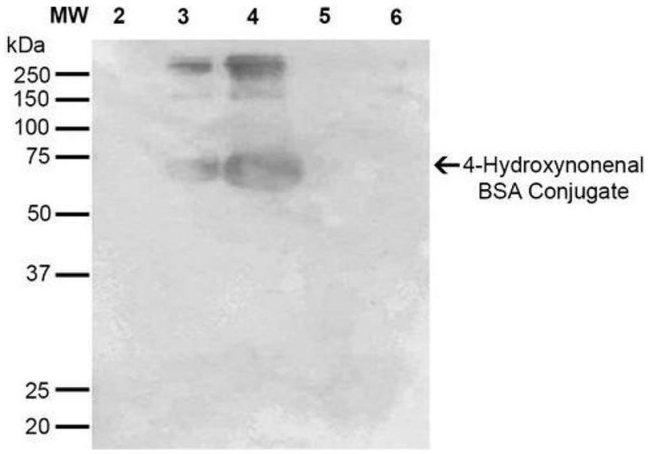
Handling

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 µM 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 µg). Lane 3: 4-hydroxyl nonenal-BSA (0.5 µg). Lane 4: 4-hydroxy nonenal-BSA (2.0 µg). Lane 5: 4-hydroxy-2-hexenal (0.5 µg). Lane 6: 4-hydroxy-2-hexenal (2.0 µg). 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.