Datasheet for ABIN5067354

anti-Malondialdehyde antibody (Biotin)

3 Images

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Overview

Quantity:	100 µg
Target:	Malondialdehyde (MDA)
Reactivity:	Please inquire
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Malondialdehyde antibody is conjugated to Biotin
Application:	Western Blotting (WB), ELISA, Immunocytochemistry (ICC), Flow Cytometry (FACS), Immunofluorescence (IF)

Product Details

Immunogen:	Synthetic Malondialdehyde modified Keyhole Limpet Hemocyanin (KLH).
Clone:	6H6
Isotype:	IgG1
Specificity:	Specific for MDA conjugated proteins. Does not detect free MDA. Does not cross-react with Acrolein, Crotonaldehyde, Hexanoyl Lysine, 4-HHE, 4-HNE, or Methylglyoxal modified proteins.
Purification:	Protein G Purified

Target Details

Target:	Malondialdehyde (MDA)
Alternative Name:	Malondialdehyde (MDA Products)

Target Details

Target Type:	Chemical
Background:	Malondialdehyde (MDA) is the biomarker in greatest diagnostic use, due to its molecular stability. This three-carbon, low-molecular weight aldehyde has a strong affinity for amino acids, which results in adduct formation to both free amino acids and proteins. Increased MDA levels have been found at correlating levels in breast cancer, and lung cancer patients. Other diseased states with elevated MDA levels include diabetes and Alzheimer's disease. Multiple laboratory techniques exist for quantification of MDA levels, including the thiobarbituric acid reactive substances (TBARS) assay. In addition to use as a biomarker, MDA has been shown to have mutagenic effects on tissues themselves as adduct formation can result in DNA cross-linking.

Application Details

Application Notes:	• WB (1:1000) • ICC/IF (1:50) • FACS (1:50) • FCM (1:50) • ELISA (1:1000) • optimal dilutions for assays should be determined by the user.
Comment:	A 1:1000 dilution of ABIN5067354 was sufficient for detection of Malondialdehyde in 2 µg of Malondialdehyde 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

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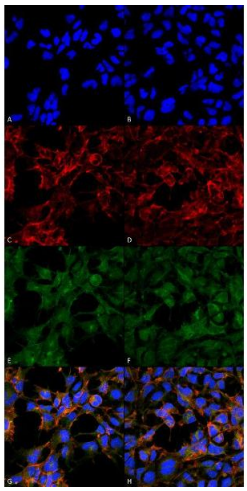
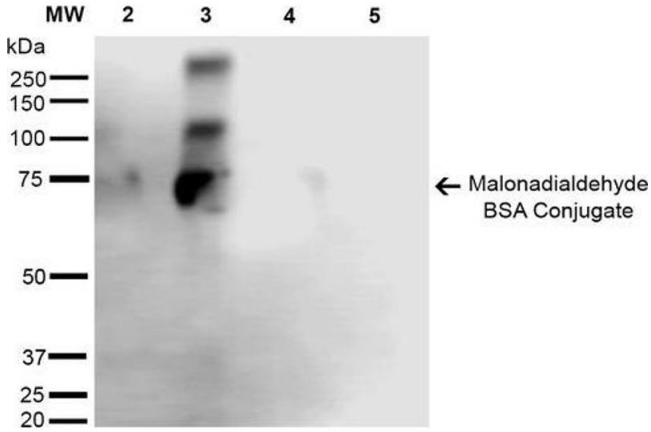


Immunofluorescence (fixed cells)

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Malondialdehyde Monoclonal Antibody, Clone 6H6 . Tissue: Embryonic kidney cells (HEK293). Species: Human. Fixation: 5% Formaldehyde for 5 min. Primary Antibody: Mouse Anti-Malondialdehyde 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) Malondialdehyde Antibody. (G,H) Composite. Courtesy of: Dr. Robert Burke, University of Victoria.



Western Blotting

Image 2. Western Blot analysis of Malondialdehyde-BSA Conjugate showing detection of 67 kDa Malondialdehyde - BSA using Mouse Anti-Malondialdehyde Monoclonal Antibody, Clone 6H6 . Lane 1: Molecular Weight Ladder (MW). Lane 2: Malondialdehyde-BSA (0.5 µg). Lane 3: Malondialdehyde-BSA (2.0 µg). Lane 4: BSA (0.5 µg). Lane 5: BSA (2.0 µg) . Block: 5% Skim Milk in TBST. Primary Antibody: Mouse Anti-Malondialdehyde 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.

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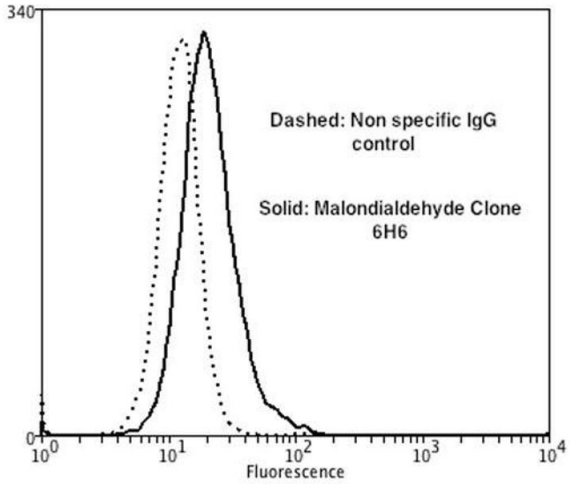

Flow Cytometry

Image 3. Flow Cytometry analysis using Mouse Anti-Malondialdehyde Monoclonal Antibody, Clone 6H6 . Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 90% Methanol. Primary Antibody: Mouse Anti-Malondialdehyde Monoclonal Antibody at 1:50 for 30 min on ice. Secondary Antibody: Goat Anti-Mouse: PE at 1:100 for 20 min at RT. Cells were subject to oxidative stress by treating with 250 µM H2O2 for 24 hours.

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