

Product Datasheet

4-Hydroxynonenal Antibody (12F7) - BSA Free NBP2-59353

Unit Size: 100 ug

Store at -20C.

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NBP2-59353**4-Hydroxynonenal Antibody (12F7) - BSA Free**

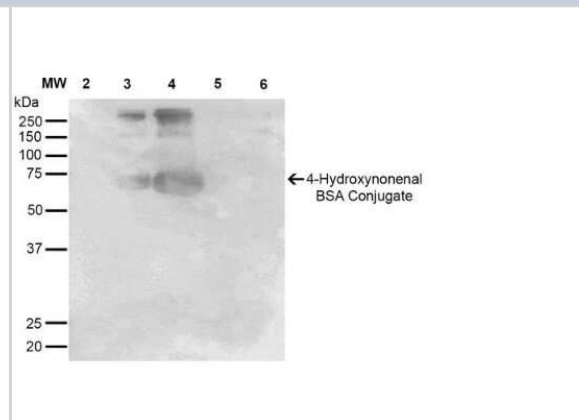
Product Information	
Unit Size	100 ug
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C.
Clonality	Monoclonal
Clone	12F7
Preservative	0.09% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	PBS (pH 7.4), 50% Glycerol

Product Description	
Description	Novus Biologicals Mouse 4-Hydroxynonenal Antibody (12F7) - BSA Free (NBP2-59353) is a monoclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-4-Hydroxynonenal Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Species	Non-species specific
Specificity/Sensitivity	Specific for 4-Hydroxynonenal (4-HNE) modified proteins. Does not detect free 4-Hydroxynonenal. Does not cross-react with 4-Hydroxy-2-hexenal, Acrolein, Crotonaldehyde, Hexanoyl Lysine, Malondialdehyde, or Methylglyoxal modified proteins.
Immunogen	Synthetic 4-Hydroxynonenal modified Keyhole Limpet Hemocyanin (KLH)

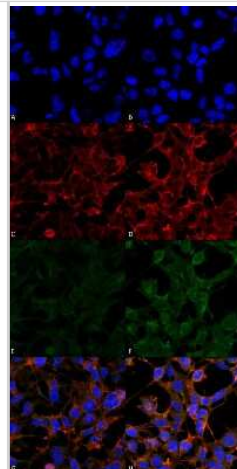
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence
Recommended Dilutions	Western Blot 1:1000, ELISA 1:1000, Immunocytochemistry/ Immunofluorescence 1:50

Images

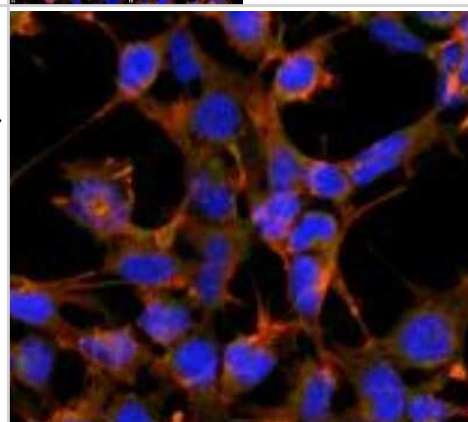
Western Blot: 4-Hydroxynonenal Antibody (12F7) [NBP2-59353] - Western Blot analysis of 4-hydroxy-nonenal-BSA Conjugate showing detection of 67 kDa 4-hydroxy-nonenal protein using Mouse Anti-4-hydroxy-nonenal Monoclonal Antibody, Clone 12F7 (NBP2-59353). Lane 1: Molecular Weight Ladder (MW). Lane 2: BSA (0.5 ug). Lane 3: 4-hydroxyl nonenal-BSA (0.5 ug). Lane 4: 4-hydroxy nonenal-BSA (2.0 ug). Lane 5: 4-hydroxy-2-hexenal (0.5 ug). Lane 6: 4-hydroxy-2-hexenal (2.0 ug). Block: 5% Skim Milk in TBST. Primary Antibody: Mouse Anti-4-hydroxy-nonenal Monoclonal Antibody (NBP2-59353) 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.



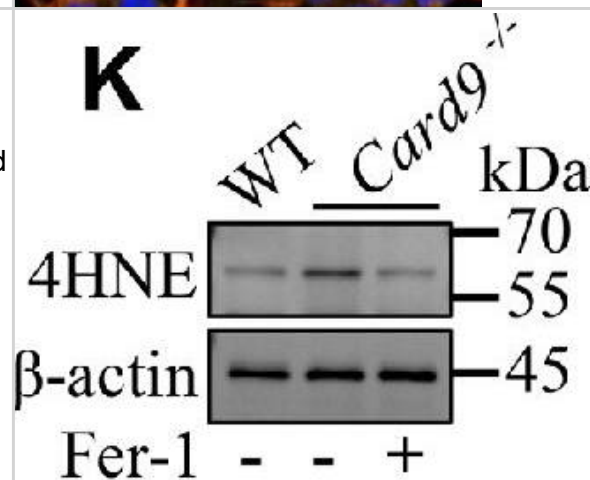
Immunocytochemistry/Immunofluorescence: 4-Hydroxynonenal Antibody (12F7) [NBP2-59353] - Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-4-Hydroxynonenal Monoclonal Antibody, Clone 12F7 (NBP2-59353). Tissue: Embryonic kidney epithelial cell line (HEK293). Species: Human. Fixation: 5% Formaldehyde for 5 min. Primary Antibody: Mouse Anti-4-Hydroxynonenal Monoclonal Antibody (NBP2-59353) 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 H₂O₂. (A,B) DAPI (blue) nuclear stain. (C,D) Phalloidin Alexa Fluor 633 F-Actin stain. (E,F) 4-Hydroxynonenal Antibody. (G,H) Composite. Courtesy of: Dr. Robert Burke, University of Victoria.



Immunocytochemistry/Immunofluorescence: 4-Hydroxynonenal Antibody (12F7) [NBP2-59353] - 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). Courtesy of: Dr. Robert Burke, University of Victoria.



Decreased SLC7A11 expression augments the susceptibility of CARD9-deficient MDSCs to ferroptosis during *C. tropicalis* stimulation. (A and B) WT and *Card9*^{-/-} MDSCs were stimulated with *C. tropicalis* (MOI = 1) for 6 h. The expression of *Slc7a11*, *Slc3a2* and *Gpx4* mRNA were detected by qPCR. (C and D) WT and *Card9*^{-/-} MDSCs were stimulated with *C. tropicalis* (MOI = 1, 2, 4) for 24 h. The protein levels of SLC7A11 and GPX4 were measured by western blot. (E-G) WT and *Card9*^{-/-} MDSCs were stimulated with *C. tropicalis* (MOI = 1) for 24 h. The glutamate in medium supernatant, intracellular cystine and GSH were determined by the corresponding assay kit. (H-L) WT and *Card9*^{-/-} MDSCs were stimulated with *C. tropicalis* (MOI = 1), meanwhile, only *CARD9*-deficient MDSCs were treated with vehicle (DMSO) or ferrostatin-1 (Fer-1, 10 μM). After 24 h, the proportion of dead MDSCs was measured by 7AAD (H). The relative cell viability of MDSCs was detected by CCK-8 kit (I). The Lipid ROS of MDSCs was measured by BODIPY 581/591 C11 staining (J). The protein level of 4HNE was determined by western blot (K). The relative MDA level in MDSCs was detected by MDA Assay Kit (L). Data with error bars are expressed as mean ± SEM, n = 3. Each panel shows at least three independent biological replicates from a typical experiment. Statistical analysis was determined by one-way or two-way ANOVA with Bonferroni's multiple comparisons test for post-hoc test. ns (not significant), P > 0.05; *P < 0.05, **P < 0.01, ***P < 0.001 Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/38566195>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Deng, H;Zhao, L;Ge, H;Gao, Y;Fu, Y;Lin, Y;Masoodi, M;Losmanova, T;Medová, M;Ott, J;Su, M;Wang, W;Peng, RW;Dorn, P;Marti, TM; Ubiquinol-mediated suppression of mitochondria-associated ferroptosis is a targetable function of lactate dehydrogenase B in cancer Nature communications 2025-03-16 [PMID: 40090955]

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)

Liu CQ, Liu XY, Ouyang PW et al. Ferrostatin-1 attenuates pathological angiogenesis in oxygen-induced retinopathy via inhibition of ferroptosis Experimental eye research 2022-12-09 [PMID: 36502924] (IF/IHC, Western Blot, Mouse)





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Products Related to NBP2-59353

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)

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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