abcam

Product datasheet

Anti-4 Hydroxynonenal antibody [HNEJ-2] ab48506

10 Abreviews 158 References 4 Images

Overview

Product name	Anti-4 Hydroxynonenal antibody [HNEJ-2]
Description	Mouse monoclonal [HNEJ-2] to 4 Hydroxynonenal
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P, IHC-FoFr
Species reactivity	**Reacts with:** Species independent
Immunogen	Chemical/ Small Molecule corresponding to 4 Hydroxynonenal conjugated to keyhole limpet haemocyanin.
Positive control	Colorectal carcinoma cells.
General notes	This product was changed from ascites to tissue culture supernatant on 28th February 2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Constituents: 0.02% Potassium chloride, 0.02% Monobasic dihydrogen potassium phosphate, 0.0125% Sodium chloride, 0.115% Dibasic monohydrogen sodium phosphate
Purity	Protein A purified
Purification notes	Purified from serum-free cell culture medium by ammonium sulfate purification followed by protein A purification.
Clonality	Monoclonal

Clone number	HNEJ-2
Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab48506 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

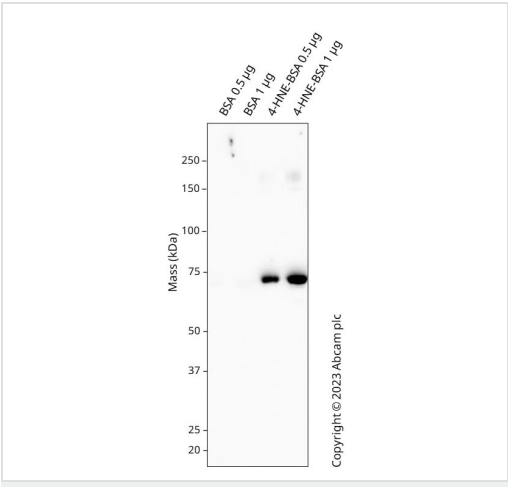
Application	Abreviews	Notes
WB	★★★★★ (2)	1/1000.
IHC-P	★★★★☆ (3)	1/25.
IHC-FoFr	★★★★☆ (1)	1/25.

Target

Relevance Aldehydic products of lipid peroxidation, such as 4 hydroxynonenal (4 HNE), have been implicated in the etiology of pathological changes under oxidative stress as a key mediator of oxidative stress induced cell death. It is a stable product of lipid peroxidation, is proarrhythmic and may contribute to the cytotoxic effects of oxidative stress.

Cellular localization Cytoplasmic

Images



Western blot - Anti-4 Hydroxynonenal antibody [HNEJ-2] (ab48506)

All lanes : Anti-4 Hydroxynonenal antibody [HNEJ-2] (ab48506) at 1/1000 dilution

Lane 1 : BSA cell lysate at 0.5 µg
Lane 2 : BSA cell lysate at 1 µg
Lane 3 : 4-Hydroxynonenal (BSA) cell lysate at 0.5 µg
Lane 4 : 4-Hydroxynonenal (BSA) cell lysate at 1 µg

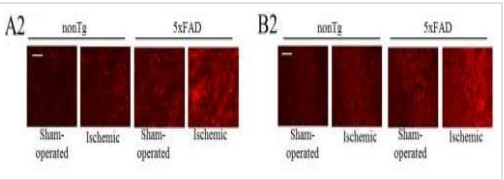
Developed using the ECL technique.

Performed under reducing conditions.

Observed band size: 66 kDa

Western blot: Anti-4-HNE antibody [HNEJ-2] (ab48506) staining at

1/1000 dilution, shown in black. In Western blot, ab48506 was shown to bind specifically to 4-HNE. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3% milk in TBS-0.1% Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times before development with a high-sensitivity ECL substrate kit and imaged with 3 minutes exposure time. Secondary antibodies used were HRP conjugated Goat anti-Mouse (H+L) 5000 dilution.



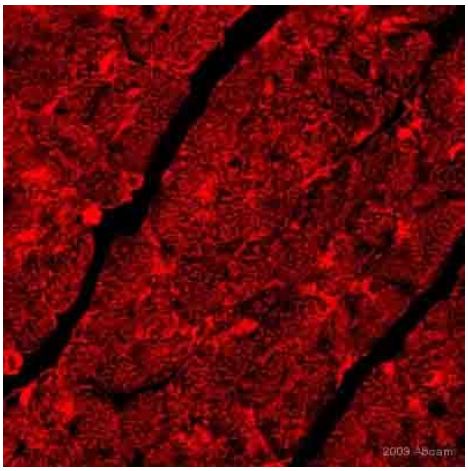
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-4 Hydroxynonenal antibody [HNEJ-2] (ab48506)

Lu, L. et al PLoS One. 2015 Dec 3;10(12):e0144068. doi: 10.1371/journal.pone.0144068. eCollection 2015. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Elevated brain oxidative damage in ischemic 5xFAD mice

Formalin-fixed, paraffin-embedded mouse brain tissue (from non-trasngenic or 5xFAD transgenic animals) stained for 4 Hydroxynonenal using ab48506 at in immunohistochemical analysis.

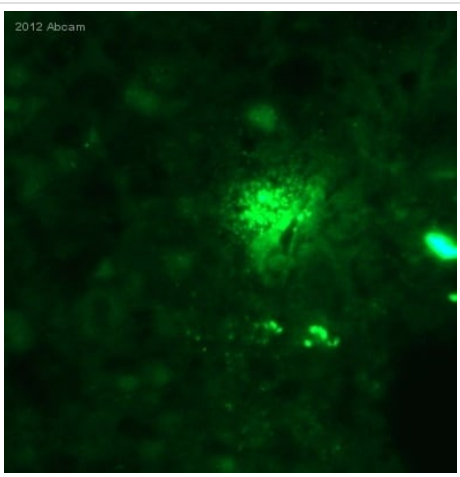
Scale bar = 20µm. (**A2**) and (**B2**) are representative images of 4-HNE staining (Red) in brain cortex and CA1 region, respectively.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-4 Hydroxynonenal antibody [HNEJ-2] (ab48506)

This image was kindly supplied by Dr Jinqing Li by Abreview

ab48506 at a 1/25 dilution staining 4-Hydroxy-2-Nonenal in mouse heart tissue sections by Immunohistochemistry (paraffin embedded) incubated for 15 hours at +4°C. Fixed with formaldehyde, heat mediated antigen retrieval step performed using citrate buffer. Blocked using 5% serum for 20 minutes at 20°C. Secondary used undiluted polyclonal Goat anti-mouse IgG conjugated to Alexa Fluor 594.



Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-4 Hydroxynonenal antibody [HNEJ-2] (ab48506)

This image is courtesy of an Abreview submitted by Seontae Kim

ab15463 staining 4-Hydroxynonenal in the Mouse melanoma cancer tissue sections by IHC-FoFr (PFA perfusion fixed frozen Sections). Tissue samples were fixed with 4% Formalin, Antigen retrieval carried out heat mediation using anautoclave for 10 minutes, permeabilized using 0.1% SDS and blocked with 1% BSAfor 15 minutes at 25°C. The sample was incubated with primary antibody (1/25 in PBS + 1% BSA) at 4°C for 12 hours.An Alexa Fluor®488-conjugated Goat anti-mouse IgG(H+L) monoclonal(1/100) was used as the secondary antibody.

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