

For Research Use Only

4-Hydroxynonenal Monoclonal antibody

Catalog Number: 68538-1-Ig **1 Publications**



Basic Information

Catalog Number:

68538-1-Ig

Concentration:

1000 µg/ml

Source:

Mouse

Isotype:

IgG2a

GenBank Accession Number:

GeneID (NCBI):

Full Name:

Purification Method:

Protein A purification

CloneNo.:

2C1D10

Recommended Dilutions:

ELISA 1:5000-1:20000

Applications

Tested Applications:

ELISA

Cited Applications:

IHC

Species Specificity:

4-hydroxynonenal, chemical compound

Cited Species:

mouse

Positive Controls:

ELISA : 4-Hydroxynonenal,

Background Information

4-Hydroxynonenal is a uremic toxin. Uremic toxins can be subdivided into three major groups based upon their chemical and physical characteristics: 1) small, water-soluble, non-protein-bound compounds, such as urea; 2) small, lipid-soluble and/or protein-bound compounds, such as the phenols and 3) larger so-called middle-molecules, such as beta2-microglobulin. 4-Hydroxynonenal (4-HNE) is a major aldehydic product of ω -6-unsaturated fatty acid peroxidation. It is considered a lipid peroxidation specific marker. 4-HNE has been found to induce differentiation and inhibit proliferation of HL-60 human leukemic cells. It has also been found to induce murine alveolar macrophage cell death. 4-HNE has been shown to inhibit State 3 respiration, causing a transient cytosolic Ca²⁺ increase. In addition, it irreversibly inhibits Na⁺-K⁺-ATPase activity.

Notable Publications

Author	Pubmed ID	Journal	Application
Guang Shi	39471714	Biomaterials	IHC

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

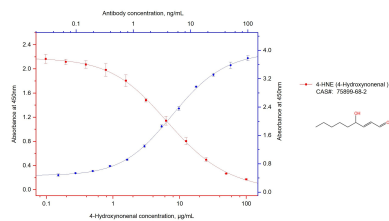
T: 4006900926

E: Proteintech-CN@ptglab.com

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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



Indirect ELISA was performed by coating BSA conjugated 4-Hydroxynonenal (4-HNE) at ~20 ng/well (by 4-HNE amount), followed by blocking with 1% BSA. Serial diluted 4-Hydroxynonenal antibody 68538-1-Ig was added to the plates and incubated at 37 °C. HRP-Goat anti-mouse was used for detection (top X-right Y, blue curve). Competitive ELISA was performed similarly except that different concentration of 4-Hydroxynonenal was mixed in 5 ng/mL primary antibody (bottom

