

For Research Use Only

# 4-Hydroxynonenal Monoclonal antibody

Catalog Number: 68538-1-Ig **2 Publications**



## Basic Information

Catalog Number:

68538-1-Ig

GenBank Accession Number:

GeneID (NCBI):

Purification Method:

Protein A purification

Size:

150ul, Concentration: 1000 ug/ml by Nanodrop;

Full Name:

CloneNo.:

2C1D10

Source:

Mouse

Recommended Dilutions:

ELISA 1:5000-1:20000

Isotype:

IgG2a

## Applications

Tested Applications:

ELISA

Positive Controls:

ELISA : 4-Hydroxynonenal,

Cited Applications:

WB, IHC

Species Specificity:

4-hydroxynonenal, chemical compound

Cited Species:

mouse

## 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  $\omega$ -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  $Ca^{2+}$  increase. In addition, it irreversibly inhibits  $Na^{+}$ - $K^{+}$ -ATPase activity.

## Notable Publications

Author	Pubmed ID	Journal	Application
Guogang Xu	40074187	Free Radic Biol Med	WB
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, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

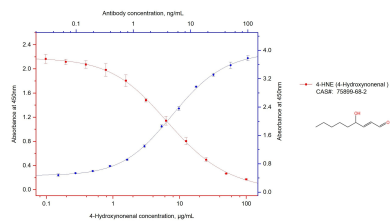
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## Selected Validation Data



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