4-Hydroxynonenal Monoclonal antibody

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Catalog Number:68538-1-Ig

Basic Information

Catalog Number:
68538-1-Ig

Size:
150ul , Concentration: 1000 μg/ml by Nanodrop;

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

Species Specificity:
4-Hydroxynonenal

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.

Storage

Storage:
Store at -20℃. 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
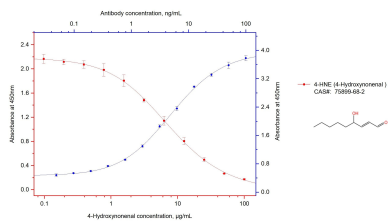
*** 20ul sizes contain 0.1% BSA

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