For Research Use Only

## Na 4-Hydroxynonenal Monoclonal antibody, PBS Only



Catalog Number: 68538-1-PBS

**Basic Information** 

Catalog Number:

68538-1-PBS

100ug, Concentration: 1mg/ml by

Nanodrop:

Source: Mouse Isotype: IgG2a

GenBank Accession Number:

GeneID (NCBI):

Full Name:

**Purification Method:** Protein A purification

CloneNo.: 2C1D10

**Applications** 

**Tested Applications:** 

ELISA, Indirect ELISA

Species Specificity:

4-hydroxynonenal, chemical compound

## **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 Ca2+ increase. In addition, it irreversibly inhibits Na+-K+-ATPase activity.

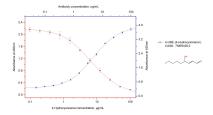
Storage

Storage:

Store at -80°C.

Storage Buffer: PBS Only

## 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