



## CERTIFICATE OF ANALYSIS

**PRODUCT:** Antiserum to (E)-4-Hydroxynonenal;  
4-Hydroxy-2-nonenal (HNE) Antibodies  
[Rabbit anti-HNE antiserum]

**PRODUCT NUMBER:** H-1110

**LOT NUMBER:** B1197

HNE is a major product of endogenous lipid peroxidation. The w-6-family (linoleic and arachidonic acids) of polyunsaturated fatty acids may produce HNE as a result of free radical attack. HNE is a highly reactive compound and it can react with several functional groups on biological material, particularly sulfhydryl groups to form thioester adduct and then hemiacetals. HNE may also react with histidine and lysine residues of proteins to form stable Michael addition-type of adducts. HNE-modified proteins may display an altered biological functions. Antibodies to HNE will help to visualize the HNE-adducts.

**SOURCE:** Free HNE was coupled with KLH and antibodies produced in rabbits. HNE was also coupled to BSA and used to coat the ELISA plate to check antibody titer.

**HNE-BSA conjugate** is supplied in 100 ul of SDS-PAGE sample buffer (reduced) and it is only suitable for Western blot +ve control. It cannot be used for ELISA etc. Load approx 10 ul/lane for blotting with antibodies. Loading volume may be adjusted depending upon the intensity of the band under actual experimental condition. BSA-HNE conjugate is approx. ~65-70 kda. Other aggregated bands may be visible as well. Store the conjugate in small aliquots at -20°C. Do not freeze and thaw.

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**NOTE:** BSA-HNE conjugate should only be used as a positive control to optimize the blotting conditions. It is not a representative of the protein bands that might be labeled with the anti-HNE in a given samples. Typically, complex proteins samples, such as liver or brain, will show many bands that are modified with HNE. There is no specific pattern that must be obtained with the antibodies.

**RECOMMENDED USAGE:** It is recommended that researchers test the antiserum, and controls and determine their own optimal condition. Rabbit Anti-HNE antiserum may diluted 1:500-1K or more **Western Blotting and histochemistry** and 1K-1:10K for **ELISA**.

Contains 0.05% azide  
Reconstitute powder in 100  $\mu$ l PBS

**STORAGE & HANDLING:** Store as supplied at -20°C. Store solutions at -20°C. Avoid repeated freeze/thaw cycles. Stable from 6 to 12 months at -20°C or below.

**CAUTION:** For research use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved.

Verified: **KT**