

OxiSelect HNE Adduct ELISA Kit

OxiSelect HNE Adduct Competitive ELISA Kit

CATALOG #
AAA11402

PRODUCT SYNONYMS

OxiSelect HNE Adduct; OxiSelect HNE Adduct Competitive ELISA Kit; OxiSelect HNE Adduct elisa kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Upon receipt, aliquot and store the Anti-HNE Antibody, HNE-BSA Standard, HNE Conjugate and 100X Conjugate Diluent at -20 degree C to avoid multiple freeze/thaw cycles. Store all other kit components at 4 degree C.

IMAGES

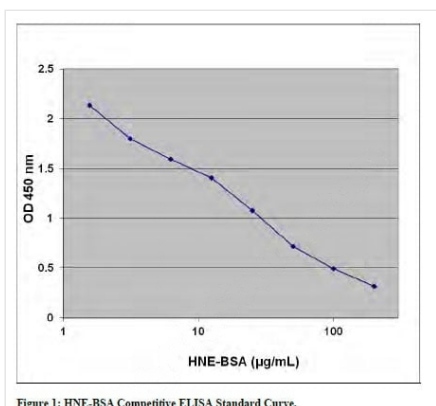


Figure 1: HNE-BSA Competitive ELISA Standard Curve.

Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for OxiSelect HNE Adduct elisa kit

Principle of the Assay: First, an HNE conjugate is coated on an ELISA plate. The unknown HNE protein samples or HNE-BSA standards are then added to the HNE conjugate preabsorbed ELISA plate. After a brief incubation, an anti-HNE polyclonal antibody is added, followed by an HRP conjugated secondary antibody. The content of HNE protein adducts in unknown samples is determined by comparison with a predetermined HNE-BSA standard curve.

Background/Introduction: Lipid peroxidation is a well-defined mechanism of cellular damage in animals and plants. Lipid peroxides are unstable indicators of oxidative stress in cells that decompose to form more complex and reactive compounds such as Malondialdehyde (MDA) and 4-hydroxynonenal (4-HNE), natural bi-products of lipid peroxidation. Oxidative modification of lipids can be induced in vitro by a wide array of pro-oxidant agents and occurs in vivo during aging and in certain disease conditions. Measuring the end products of lipid peroxidation is one of the most widely accepted assays for oxidative damage. These aldehydic secondary products of lipid peroxidation are generally accepted markers of oxidative stress. Both MDA and HNE have been shown to be capable of binding to proteins and forming stable adducts, also termed advanced lipid peroxidation end products. These modifications of proteins by MDA or HNE can cause both structural and functional changes of oxidized proteins. Specifically, 4-HNE can react with lysine, histidine or cysteine residues in protein to form adducts. OxiSelect™ HNE Adduct Competitive ELISA Kit is an enzyme immunoassay developed for rapid detection and quantitation of HNE protein adducts. The quantity of HNE adduct in protein samples is determined by comparing its absorbance with that of a known HNE-BSA standard curve. Each Trial Size HNE Adduct Competitive ELISA Kit provides sufficient reagents to perform up to 32 assays, including standard curve and unknown protein samples.

Product Categories/Family for OxiSelect HNE Adduct elisa kit	Oxidative Stress/Damage; Lipid Peroxidation; HNE (4-Hydroxynonenal) Assays and Reagents; HNE Adduct Competitive ELISA
References	- Hoff HF, O'Neil J. (1993) J Lipid Res. 34: 1209-17. - Armstrong, D. and Browne, R. (1994). Free Radicals in Diagnostic Medicine. 366: 43-58. - Armstrong, D., et al. (1998). Free Radicals and Antioxidant Protocols. 108: 315-324. - Boyum, A. (1966). J. of Clinical Investigation. 21: Supplement 97. - Braun, D. and Fromherz, P. (1997). Applied Physics A. - Gidez, L., et al. (1982). J. of Lipid Research. 23: 1206-1223. - Lefevre G., et al. (1998). Annals de Biologie Clinique. 56(3): 305-319. - Allegra, M. et al. (2014). Pro-oxidant activity of indicaxanthin from <i>Opuntia ficus indica</i> modulates arachidonate metabolism and prostaglandin synthesis through lipid peroxide production in LPS-stimulated RAW 264.7 macrophages. Redox Biol. 2:892-900. - Dickerson, R. et al. (2014). Does oral supplementation of a fermented papaya preparation correct respiratory burst function of innate immune cells in Type 2 Diabetes Mellitus patients? Antioxid Redox Signal. doi:10.1089/ars.2014.6138. - Kador, P. F. et al. (2014). Topical nutraceutical Optixcare EH ameliorates experimental ocular oxidative stress in rats. J Ocul Pharmacol Ther. 30:593-602. - DuPont, J. J. et al. (2014). NADPH Oxidase-Derived Reactive Oxygen Species Contribute to Impaired Cutaneous Microvascular Function in Chronic Kidney Disease. Am J Physiol Renal Physiol. 306:F1499-F1506.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/elisa-kits/oxiselect-hne-adduct/11402>