ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

4-Hydroxy-2-nonenal (HNE)-BSA Conjugate

Cat # HNE15-R **HNE-BSA Protein Conjuagte** **SIZE**: 100 ug

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 sulfydryl 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 of Antigen, Antibodies, and controls

Free HNE (cat # HNE51-5) was coupled to BSA (bovine Serum albumin) (cat # HNE51-R). The conjugate was dialyzed to remove free HNE. It is supplied in 10 mM Tris-buffer, pH 7.5 and 0.01% benzethonium chloride as preservative.

HNE-BSA conjugate (cat # HNE51-R) is supplied as liquid at 100 ug/100 ul in liquid or in powder form. Reconstitute powder in PBS or other buffers at 1 mg/ml (add 100ul buffer for 1 mg/ml solution).

Storage

Short-term: unopened, undiluted liquid vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

HNE-BSA conjugate can be used to coat ELISA plates (coat 1-10 ug/ml) to test antibodies or used a known positive control for ELISA or Western (load 1-5 ul/lane). BSA-HNE conjugate is approx. ~65-70 kda. Other aggregated bands may be visible as well.

Note: BSA-HNE conjugate should only be used as a positive control to optimize the bloting 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.

General References: (1) Yoritaka, A et al (1996) Proc. Natl. Acad. Sci. 93, 2696; Uchida, K. (1995) Arch Biochem. Biophys 324, 241; Quinn, MT et al (1995) J. Leukocyte Biol. 57, 415; Okamoto, K. (1994) Int. J. Cancer 58, 825; Uchida K et al (1993) PNAS 90, 8742.

Citations of ADI's HNE antibodies (see complete list at the web site).

Carter JE 2002 **BBRC 297, 1062-1070** IF/human and sheep lung cells/tissues

McKim SE, 2002 **Arch. Biochem. Biiophys. 406, 40-46** IHC
Tsuneyama M eat al 2002 **Journal of Hepatology 37, 176-183** IHC
Ishigami A, 2003 **Legal Medicine in press 1-7 pages**, IHC

Tsuneyama K et al 2002 **J Hepatology 37, 176-183**, IHC

McKim SE, 2002 **Arch Biochem Biophy. 406, 40-46**
IF/rat liver/diet studies
Kono, Hiroshi 2001 **Am J Physiol Gastrointest Liver Physiol 280: G1178-G1186,** IHC,

Kono H et al 2001 **Free Radical Biology and Medicine, Volume 30, , Pages 403-411**, IHC,

Tuder RM2003 **Am. J. Respir. Cell Mol. Biol., Jan 2003**; in press IHC

Nyhlin N et al, 2002 **J Intern Med 2002; 251: 136-141,** IHC,

Tokunaga I, 2003, **Legal Medicine in press 1-8 pages** IHC

All products are for in vitro research use only.

Related products available from ADI….

Anti-MDA, Anti-HNE

Western Blot Recycling Kit (Re-use your blots in 15 mins.); Enhanced NuGlo Chemiluminescent Substrates

HNE15-R 71214A

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