Anti-4-hydroxy-2-hexenal (4-HHE) Monoclonal Antibody (clone HHE53)

4-hydroxy-2-alkenal is one of the major lipid peroxidation products, and shows many biological effects such as high toxicity to cells. Among them, 4-hydroxy-2-hexenal (HHE) is an aldehyde formed during peroxidation of n-3 fatty acids such as docosahexaenoic acid. HHE is highly reactive aldehyde and reacts with histidine residue of protein to form Michael-addition type adducts. This antibody is specific for HHE-histidine Michael adduct (HHE-His) and enable to detect HHE-His in the tissue samples.

Code: MHH-030n (30 μ g of IgG)

Clone #: HHE53

Immunogen: HHE-modified keyhole-lympet hemocyanine.

Subclass: Mouse $IgG_{1_{\kappa}}$

Prepared as ascite, and protein-A purified.

Application: Immunohistochemistry. Recommended antibody concentration is 0.5 -

1.0 μ g/mL on paraformaldehyde fixed tissue.

Buffer 100 μ g/mL antibody in 10mM PBS containing 0.1 %NaN3 and 0.5%

Concentration: BSA. Purified by Protein-A.

Specificity: Specific for HHE-modified protein (especially HHE-His Michael adduct)

Storage: Less than -20°C

Stability: 6 months after date of receipt. For long term storage, aliquot product

into individual tubes and freeze at -20 or -70°C. Avoid repeated

freeze/defrost cycles.

Reference: Yamada S, et.al. Protein-bound 4-hydroxy-2-hexenal as a marker of

oxidized n-3 polyunsaturated fatty acids. J Lipid Res. 45(4), p626-634

(2004)

Shibata N, et. Al. Accumulation of protein-bound 4-hydroxy-2-hexenal in spinal cords from patients with sporadic amyotrophic lateral

sclerosis.Brain Res. 1019(1-2), p170-177 (2004)

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