Malondialdehyde (MDA) Modified Low Density Lipoprotein (LDL)

CATALOG NUMBER:	STA-212
STORAGE:	-20ºC; aliquot to avoid freeze/thaw cycles
QUANTITY AND CONCENTRATION:	100 µg at 1.0 mg/mL in PBS, pH 7.4, containing 1 mM EDTA, 0.02% NaN_3 and 50% glycerol
SHELF LIFE:	1 year from date of receipt under proper storage conditions
SOURCE:	Isolated from human plasma tested negative for Hepatitis surface antigens and HCV, HIV-I and HIV-II antibodies; purified by ultracentrifugation and modified with malondialdehyde
PURITY:	98% by SDS-PAGE

Background

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.

Recent Product Citations

1. Shen, L. et al. (2015). B-1a lymphocytes attenuate insulin resistance. *Diabetes.* **64**:593-603.
2. Haller, E. et al. (2014). Gold nanoparticle–antibody conjugates for specific extraction and subsequent analysis by liquid chromatography–tandem mass spectrometry of malondialdehyde-modified low density lipoprotein as biomarker for cardiovascular risk. *Anal Chim Acta.* **857**:53-63.

Warranty

FITNESS FOR PARTICULAR PURPOSE. CELL BIOLABS *'s* sole obligation and purchaser's exclusive remedy for breach of this warranty shall be, at the option of CELL BIOLABS, to repair or replace the products. In no event shall CELL BIOLABS be liable for any proximate, incidental or consequential damages in connection with the products.

This product is for RESEARCH USE ONLY; not for use in diagnostic procedures.

Contact Information

Cell Biolabs, Inc.
7758 Arjons Drive
San Diego, CA 92126
Worldwide: +1 858-271-6500
USA Toll-Free: 1-888-CBL-0505
E-mail: tech@cellbiolabs.com
www.cellbiolabs.com