

BIOXYTECH® LPO-586™

Colorimetric Assay For Lipid Peroxidation Markers For Research Use Only. Not For Use In Diagnostic Procedures.

Catalog No. 21012

INTRODUCTION

Lipid peroxidation is a well-established mechanism of cellular injury in both plants and animals, and is used as an indicator of oxidative stress in cells and tissues. Lipid peroxides are unstable, and decompose to form a complex series of compounds including reactive carbonyl compounds. Polyunsaturated fatty acid peroxides generate malonaldehyde (MDA) and 4-hydroxyalkenals upon decomposition. Measurement of malonaldehyde and 4-hydroxyalkenals has been used as an indicator of lipid peroxidation (ESTERBAUER, 1991). The LPO-586 method is designed to assay either MDA alone (in hydrochloric acid) or MDA in combination with 4-hydroxyalkenals (in methanesulfonic acid).

Catalog Number:	21012
Methodology:	Colorimetric
Specimen Requirements	EDTA plasma, tissue homogenates, or cell lysates
Specificity	Specific for MDA and 4-hydroxyalkenals. Minimum interference from other aldehydes.
Sensitivity	0.1 µM MDA (final concentration in reaction mixture)
Assay Standard Curve Range	2.5 - 20 µM
Expected Values	Normal human plasma: 0-1 µM
Tests per Kit	100 tests
Storage and Stability	Nine months from date of manufacture when stored at 2° - 8°C
Kit Contents	<ul style="list-style-type: none">• 3 x 18 mL 10.3 mM N-methyl-2-phenylindole• 1 x 1 mL 10 mM 4-HNE standard• 1 x 1 mL 10 mM 1,1,3,3-tetramethoxypropane (MDA) standard• 3 x 5.5 mL 15.4 M methanesulfonic acid