

TBARS Assay Kit

Product Information

Cat.No.

Kit-0811

Product Overview

TBARS Assay Kit provides a simple, reproducible, and standardized tool for assaying lipid peroxidation in plasma, serum, urine, tissue homogenates, and cell lysates.

Description

Malondialdehyde (MDA) is a naturally occurring product of lipid peroxidation. 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, derived from polyunsaturated fatty acids, are unstable and decompose to form a complex series of compounds, which include reactive carbonyl compounds, such as MDA. In human platelets, thromboxane synthase also catalyzes the conversion of PGH₂ to thromboxane A₂, 12(S)-HHTrE, and MDA in a ratio of 1:1:1. The measurement of Thiobarbituric Acid Reactive Substances (TBARS) is a well-established method for screening and monitoring lipid peroxidation. Modifications of the TBARS assay by many researchers have been used to evaluate several types of samples including human and animal tissues and fluids, drugs, and foods. Even though there remains a controversy cited in literature regarding the specificity of TBARS toward compounds other than MDA, it still remains the most widely employed assay used to determine lipid peroxidation. If lipoprotein fractions are first acid precipitated from the sample, interfering soluble TBARS are minimized, and the test becomes quite specific for lipid peroxidation. Lipids with greater unsaturation will yield higher TBARS values. It is recommended that if high TBARS values are obtained, a more specific assay such as HPLC should be performed.

Usage

For research use only (RUO)

Storage

This kit will perform as specified if stored at 4°C and used before the expiration date indicated on the outside of the box.



TBARS Assay Kit

Kit Components

Thiobarbituric Acid 1 vial
TBA Acetic Acid 2 vials
TBA Sodium Hydroxide (10X) 1 vial
TBA Malondialdehyde Standard 1 vial
TBA SDS Solution 1 vial
96-Well Solid Plate (Colorimetric Assay) 1 plate
96-Well Solid Plate (black) 1 plate
96-Well Cover Sheet 2 covers

Compatible Sample Types

Cell lysates, Plasma, Serum, Tissue homogenates, Urine