

TBARS Assay kit II

Product Information

Cat.No.

Kit-0812

Product Overview

TBARS Assay kit is used for the quantitative determination of thiobarbituric acid reactive substances through the detection of an adduct of malondialdehyde (MDA) and thiobarbituric acid (TBA).

Description

The sensitivity of measuring Thiobarbituric Acid Reactive Substances (TBARS) has made this assay the method of choice for screening and monitoring lipid peroxidation, a major indicator of oxidative stress. Oxidative stress in the cellular environment results in the formation of highly reactive and unstable lipid hydroperoxides. Decomposition of the unstable peroxides derived from polyunsaturated fatty acids results in the formation of malondialdehyde (MDA), which can be quantified colorimetrically following its controlled reaction with thiobarbituric acid. This assay remains the most widely employed assay used to determine lipid peroxidation.

Applications

The TBARS Assay kit measures malondialdehyde (MDA), a reactive compound formed from lipid peroxides that are generated under conditions of oxidative stress. Oxidative modification of lipids occurs with aging and various diseases, and increased oxidative stress is associated with diabetes and its complications. MDA forms an adduct with thiobarbituric acid (TBA). Results are calculated from a standard curve constructed with authentic MDA. Exocells TBARS assay can be used with a spectrum of biological samples including body fluids, tissue and cell specimens.

Usage

For research use only (RUO)

Storage

Store all kit reagents at 2-8°C. The components should be used before the expiration date indicated on the outside of the box. TBA stock should be refrigerated.

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Kit Components

Microplate for fluorometer. 96 (8x12) wells
Thiobarbituric Acid stock solution 1 vial
TBARS Assay Diluent 1 vial
MDA Standard 10 μ M
Malondialdehyde 1 vial
Bis(dimethylacetal) 1 vial
Acetic Acid 1 vial

Detection method Fluorimetric/Colorimetric

Compatible Sample Types

Body fluids, Cell specimens and Tissue