

TBARS assay kit

TBARS, Cuvette Format

CATALOG #
AAA71813

PRODUCT SYNONYMS

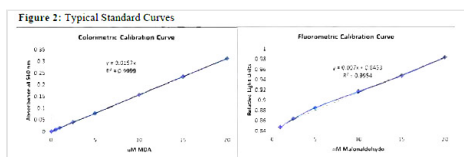
TBARS; Cuvette Format; Fluorometric TBARS Microplate; TBARS assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

1. The reagents are stable until the indicated kit expiration date if handled and stored properly.
2. When not in use, store the kit at 4 degree C for up to one year.
3. MDA standards should be used within 24 hours of preparation.
4. The Indicator Solution (combined 2-TBA and Acid Reagent) can be stored at 4 degree C for one week.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for TBARS assay kit

Principle of the Assay: This assay is based on the reaction of a chromogenic reagent, 2-thiobarbituric acid, with MDA at 25 degree C. One molecule of MDA reacts with 2 molecules of 2-thiobarbituric acid via a Knoevenagel-type condensation to yield a chromophore with absorbance maximum at 532 nm, as shown below in Figure 1

Background/Introduction: 2-ThioBarbituric Acid Reactive Substances (TBARS) are naturally present in biological specimens and include lipid hydroperoxides and aldehydes which increase in concentration as a response to oxidative stress.^{1,2} TBARS assay values are usually reported in malonaldehyde (malondialdehyde, MDA) equivalents, a compound that results from the decomposition of polyunsaturated fatty acid lipid peroxides. The TBARS assay is a well-recognized, established method for quantifying these lipid peroxides, although it has been criticized for its reactivity towards other compounds other than MDA.³ This kit contains modifications from the traditional TBARS assay to reduce background and the generation of TBA reactive substances to give a straightforward, reproducible and consistent method for analyzing biological samples for lipid peroxidation products. This assay can be run colorimetrically at 532 nm or fluorometrically at 585 nm.

References

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3. Yagi, K. (1998) Free Rad. Antiox. Prot., 108; 101-106.
4. Moore, K., Roberts, L.J., (1998) Free Rad. Res. 28; 659-671.
5. Liu, J., et al.; (1997) Analyt. Biochem. 245;161-166.
6. Carbonneau, M.A., et al.; (1991) Clin. Chem. 37; 1423-1429.
7. Mattson, J.P., et al.; (2002) Pathophysiology 8; 215-221.
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10. Montilla-Lopez, P., et al.; (2002) European J. Pharmacology 451; 237-243.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/assay-kits/tbars/71813>