

Trolox Equivalent Antioxidant Capacity Assay Kit | TEAC-ABTS assay kit

OxiSelect Trolox Equivalent Antioxidant Capacity (TEAC) Assay Kit (ABTS)

CATALOG #

AAA11443

PRODUCT SYNONYMS

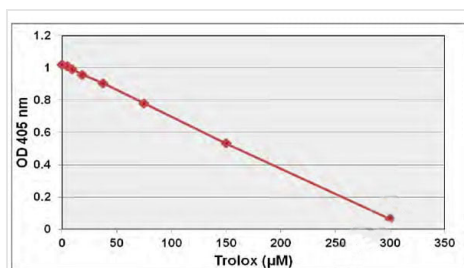
Trolox Equivalent Antioxidant Capacity; OxiSelect Trolox Equivalent Antioxidant Capacity (TEAC) Assay Kit (ABTS); TEAC-ABTS assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Store the Trolox Standard at -20 degree C. Store all other components at 4 degree C.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for TEAC-ABTS assay kit	Background: Oxidative stress is a physiological condition where there is an imbalance between concentrations of reactive oxygen species (ROS) and antioxidants. However, excessive ROS accumulation will lead to cellular injury, such as damage to DNA, proteins, carbohydrates, and lipid membranes. The cellular damage caused by ROS has been implicated in the development of many disease states, such as cancer, diabetes, cardiovascular disease, atherosclerosis, and neurodegenerative diseases. Under normal physiological conditions, cellular ROS generation is counterbalanced by the action of cellular antioxidant enzymes, macro or micro molecules, as well as other redox molecules. Antioxidants include both hydrophilic and lipophilic molecules for metabolizing ROS. These may be localized transiently within different tissues or cells. Due to their potential harmful effects, excessive ROS must be promptly eliminated from the cells by this variety of antioxidant defense mechanisms. Antioxidants commonly neutralize radicals via a hydrogen atom transfer (HAT) or single electron transfer (SET) mechanism. Although the products of ROS-induced oxidative stress are extensively used to monitor their biological effects, it is also important to evaluate the antioxidant capacity of biological fluids, cells, and extracts. OxiSelect™ Trolox Equivalent Antioxidant Capacity (TEAC) Assay Kit measures the total antioxidant capacity of biomolecules from a variety of hydrophilic or lipophilic samples. The TEAC Assay is based on the conversion of oxidized ABTS+ radical to ABTS via SET or HAT antioxidant mechanisms. Antioxidants neutralize the radical ion in a concentration dependent manner, which correlates with a proportional decrease in color intensity. The antioxidant concentration, steric accessibility, and reaction kinetics on the radical adsorption will influence the antioxidant activity values. Antioxidant activity is compared to the water soluble vitamin E analog Trolox. OxiSelect™ TEAC Assay Kit is a versatile, fast and reliable kit for the direct measurement of total antioxidant capacity from plasma, serum, urine, cell lysates, tissue homogenates, and food extracts. Each kit provides sufficient reagents to perform up to 200 assays, including blanks, antioxidant standards and unknown samples. Both hydrophilic and lipophilic samples are compatible with the assay and it is stable over a broad pH range. The assay does not distinguish between hydrophilic and lipophilic antioxidants, thus the combined antioxidant capacity is measured. The assay is designed for use in single plate microplate readers as well as readers with high-throughput capabilities. The assay may be performed as an end point assay or run kinetically if needed. Please read the complete kit insert prior to performing the assay.
Product Categories/Family for TEAC-ABTS assay kit	Oxidative Stress/Damage; Antioxidant Assays; TEAC Assay

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://stage.aaabiotech.com/teac-abts-assay-kits/trolox-equivalent-antioxidant-capacity/11443>