



Advanced Cell-Based
Solutions & Services

Antioxidant Kits



Zen-Bio: Your partner in research

Free radicals and reactive oxygen species (ROS) are highly reactive molecules that are generated by normal cellular processes, environmental stresses, and UV irradiation. ROS react with cellular components, damaging DNA, carbohydrates, proteins, and lipids causing cellular and tissue injury. Excess production of reactive oxygen species can also lead to inflammation, premature aging disorders, and several disease states, including cancer, diabetes, and atherosclerosis.

The Zen-Bio's ORAC and ABTS Antioxidant Assay Kits can be used to determine the total antioxidant capacity of biological fluids, cells, and tissue. It can also be used to assay the antioxidant activity of naturally occurring or synthetic compounds for use as dietary supplements, topical protection, and therapeutics.

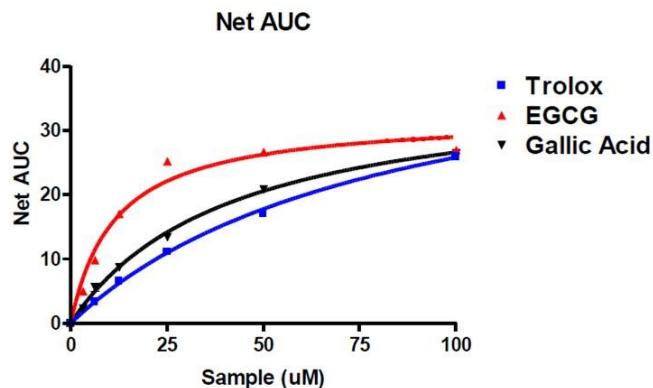


Figure 1. Effects of antioxidants in ORAC assay
Trolox, Epigallocatechin gallate (EGCG), and Gallic acid were tested for their antioxidant activity in the ORAC antioxidant assay.

For more details or to place an order, contact **ZenBio**.



zen-bio.com

3920 South Alston Ave
Durham, NC 27713
1.866.ADIPPOSE



Advanced Cell-Based Solutions & Services

ABTS (TEAC) Antioxidant Assay Kit (AOX-1)

The ZenBio ABTS Antioxidant Assay measures the total antioxidant capacity of a sample to suppress the oxidation of ABTS by ferriyl myoglobin radicals. Trolox serves as the positive control and suppresses ABTS radical cation formation.

ORAC Antioxidant Assay Kit (AOX-2)

The ZenBio ORAC assay measures the loss of fluorescence due to oxidation of fluorescein by peroxy radicals generated by the breakdown of AAPH (2,2'-azobis-2-methyl-propanimidamide, dihydrochloride). Trolox serves as the positive control and suppresses the oxidation reaction.

DPPH Antioxidant Assay Kit (AOX-3)

The ZenBio DPPH assay measures the capacity of a sample to reduce the stable DPPH radical to a less colorful form by electron transfer. Trolox serves as the positive control efficiently reducing the DPPH radical.

Cu-TAC Antioxidant Assay Kit (AOX-4)

The ZenBio Cu-TAC assay measures the capacity of a sample to reduce Cu(II) to Cu(I) which is stabilized in a neocuproine complex having a strong absorbance at 450 nm. Trolox and uric acid serve as standards for the reduction reaction.

TAC-BCS Antioxidant Assay kit (AOX-5)

The ZenBio TAC-BCS assay measures the reductive capacity of a sample to reduce Cu(II) to Cu(I) which is stabilized in a bathocuproinedisulfonate (BCS) complex. The increase in absorbance at 490 nm is indicative of the antioxidant capacity of the test sample. Trolox and uric acid serve as standards for the reduction reaction.

HORAC Antioxidant Assay Kit (AOX-6)

The ZenBio HORAC assay measures the loss of fluorescence due to oxidation of fluorescein by hydroxyl-radicals generated by Co (II) and peroxide. Gallic acid serves as the positive control and suppresses the oxidation reaction.

NORAC Antioxidant Assay Kit (AOX-7)

The ZenBio NORAC assay measures the increase in fluorescence due to oxidation of DHR-123 by peroxy nitrite generated by SIN-1 degradation. Trolox serves as the positive control and suppresses the oxidation reaction.

CLORAC Antioxidant Assay Kit (AOX-8)

The ZenBio CLORAC assay measures the loss in fluorescence due to oxidation of fluorescein by hypochlorite. Trolox serves as the positive control scavenging the hypochlorite ion to inhibit the oxidation reaction.

CAA Cellular Antioxidant Assay Kit (AOX-9)

The ZenBio Cellular Antioxidant Assay measures the increase in cellular fluorescence due to oxidation of dichlorodihydrofluorescein (DCFH) by free radicals. The cell permeant DCFH-DA probe readily accumulates in cells and can be used to assess the capacity of test samples to inhibit the formation of or oxidation by free radicals in cultured cells. Quercetin serves as the positive control by inhibiting oxidation of DCFH.

FRAP Assay Kit (AOX-11)

The ZenBio FRAP assay measures the reduction capacity of an antioxidant to reduce Fe(III) to Fe(II) in a low pH environment. This reduction reaction allows a stable ferrous-tripyrindyltriazine complex to form as a colored product with strong absorbance at 593nm. Fe(II)SO₄ is used as a positive control.

For more details or to place an order, contact **ZenBio**.



zen-bio.com

3920 South Alston Ave
Durham, NC 27713

1.866.ADIPOSE