



# Total Antioxidant Capacity (TAC) Colorimetric Assay Kit I

## Product Information

### Cat

Kit-2298

### Cat.No.

Kit-2298

## Product Overview

Ferric reducing antioxidant power (FRAP) assay is a widely used method that uses antioxidants as reductants in a redox-linked colorimetric reaction, wherein  $\text{Fe}^{3+}$  is reduced to  $\text{Fe}^{2+}$ . Ferric ( $\text{Fe}^{3+}$ ) to ferrous ( $\text{Fe}^{2+}$ ) ion reduction at low pH causes formation of a colored ferrous-probe complex from a colorless ferric-probe complex. Antioxidants are molecules which act as reducing agents by donating electrons to free radicals to stabilize them and minimize the damage caused by free radicals to DNA, cells and organ systems. Antioxidants include substances such as polyphenols; flavonoids; vitamins and enzymes like glutathione peroxidase and superoxide dismutase. They are known to have beneficial health effects such as lowering the risk of cancer, heart disease and neurodegenerative disorders and are abundantly found in plants, fruits, vegetables, beverages and natural products. FRAP assay kit provides a quick, sensitive and easy way for measuring antioxidant capacity of various biological samples. The assay is high-throughput adaptable and can detect antioxidant capacities as low as 0.2 mM  $\text{Fe}^{2+}$  equivalents.

## Applications

Assay measuring either the combination of both small molecule and protein antioxidants or small molecules antioxidants

## Storage

4°C

## Shipping

Gel Pack

## Size



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200 assays

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## Kit Components

FRAP Assay Buffer; FRAP Probe; FeCl<sub>3</sub> Solution; Ferrous Standard (2 mM); FRAP Positive Control

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## Target Species

Foodstuff, biological fluids, drinks

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**Detection method** Absorbance (OD 594 nm)

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## Features & Benefits

Simple procedure; takes less than 2 hours;  
Fast and convenient

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