

## Peroxide Assay Kit

### Product Information

#### Cat.No.

Kit-0676

#### Product Overview

Peroxide Assay Kit is a quantitative colorimetric peroxide determination at 585 nm.

#### Description

Peroxide (e.g. hydrogen peroxide H<sub>2</sub>O<sub>2</sub>) is one of the key reactive oxygen species formed under oxidative stress conditions. High levels of peroxide formation have been linked to pathological conditions such as ageing, asthma, diabetes, atherosclerosis, cataract, inflammatory arthritis and neurodegenerative diseases. Simple, direct and automation-ready procedures for quantitative determination of peroxide find wide applications in research and drug discovery. Peroxide Assay Kit is designed to measure peroxide concentration in biological samples without any pretreatment. The improved method utilizes the chromogenic Fe<sup>3+</sup>-xylenol orange reaction, in which a purple complex is formed when Fe<sup>2+</sup> provided in the reagent is oxidized to Fe<sup>3+</sup> by peroxides present in the sample. The intensity of the color, measured at 540-610nm, is an accurate measure of the peroxide level in the sample. The optimized formulation substantially reduces interference by substances in the raw samples.

#### Applications

Direct Assays: H<sub>2</sub>O<sub>2</sub> in biological samples (e.g. serum, citrate-plasma, urine, cell lysate, culture medium). Pharmacology: effects of drugs on peroxide metabolism.

#### Usage

For research use only (RUO)

#### Storage

Store the kit at -20°C.

#### Kit Components

Reagent A: 1 mL Reagent B: 50 mL Standard: 100 µL 3% stabilized H<sub>2</sub>O<sub>2</sub>. Kit shipped at room



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temperature. Storage conditions. The kit is shipped at room temperature. Store all reagents at 4°C. Shelf life: 6 months after receipt. Precautions: reagents are for research use only. Normal precautions for laboratory reagents should be exercised while using the reagents. Please refer to Material Safety Data Sheet for detailed information.

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**Detection method** Colorimetric

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### Compatible Sample Types

Cell Lysate, Culture Medium, Plasma (Citrate), Serum, Urine

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### Features & Benefits

Sensitive and accurate: Enhanced color intensity using sorbitol. Detection range 0.2  $\mu\text{M}$  (7 ng/mL) to 30  $\mu\text{M}$  (1,020 ng/mL)  $\text{H}_2\text{O}_2$  in 96-well plate assay. Simple and high-throughput: The procedure involves addition of a single detection reagent and incubation for 30 min. Can be readily automated as a high-throughput assay in 96-well plates for thousands of samples per day.

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