

Superoxide Dismutase Assay Kit

Cat. No. Kit-2455 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Superoxide dismutases (SOD, EC1.15.1.1) are enzymes that catalyze the dismutation of superoxide into O₂ and H₂O₂. They are an important antioxidant defense in all cells exposed to O₂. There are three major families of superoxide dismutase: Cu/Zn, Fe/Mn, and the Ni type. Aberrant SOD activities have been linked to diseases such as amyotrophic lateral sclerosis, perinatal lethality, neural disorders and cancer. SOD assay provides a convenient colorimetric means for the quantitative determination of SOD enzyme activity in biological samples. In the assay, superoxide (O₂⁻) is provided by xanthine oxidase (XO) catalyzed reaction. O₂⁻ reacts with a WST-1 dye to form a colored product. SOD scavenges the O₂⁻ thus less O₂⁻ is available for the chromogenic reaction. The color intensity (OD_{440nm}) is used to determine the SOD activity in a sample.

Storage

-20°C

Shipping

On Ice

Size

100 tests

Detection method

OD_{440nm}

Compatible Sample Types

Blood, cell, tissue etc

Features & Benefits

Sensitive and accurate. Linear detection range of 0.05 - 3 U/mL SOD.
Convenient and high-throughput. Homogeneous "mix-incubate-measure" type assay.

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No wash and reagent transfer steps are involved. Can be readily automated on HTS liquid handling systems for processing thousands of samples per day.

Assay time

1 hr

Sensitivity

0.05 U/mL

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