Product name: Superoxide Dismutase Activity Assay Kit (Colorimetric) ab65354

Detection method: Colorimetric

Sample type: Urine, Serum, Plasma, Other biological fluids, Tissue Extracts, Cell Lysate, Cell culture media

Assay type: Enzyme activity

Assay time: 0h 30m

Species reactivity: Reacts with: Mammals, Other species

Product overview: Superoxide Dismutase Activity Assay Kit (Colorimetric) ab65354 is a simple and rapid assay for superoxide dismutase (SOD) activity.

In the SOD assay protocol:
- superoxide anions are produced by the action of xanthine oxidase
- SOD catalyzes the dismutation of the superoxide anion into hydrogen peroxide and O₂
- superoxide anions act on WST-1 to produce a water-soluble formazan dye which can be detected by the increase in absorbance at 450 nm
The greater the activity of SOD in the sample, the less formazan dye is produced.

Superoxide dismutase assay protocol summary:
- add samples to wells
- add WST-1 working solution and enzyme working solution and incubate for 20 min at 37°C
- analyze with microplate reader

Notes: This product is manufactured by BioVision, an Abcam company and was previously called K335 Superoxide Dismutase (SOD) Activity Colorimetric Assay Kit. K335-100 is the same size as the 100 test size of ab65354.

Superoxide dismutase (SOD) is one of the most important antioxidative enzymes. It catalyzes the dismutation of the superoxide anion into hydrogen peroxide and molecular oxygen.

Related products
Review the oxidative stress marker and assay guide to learn about more assays for oxidative stress.

Platform: Microplate reader
Superoxide dismutase (SOD) is an antioxidant enzyme involved in the defense system against reactive oxygen species (ROS). SOD catalyzes the dismutation reaction of superoxide radical anion (O$_2^-$) to hydrogen peroxide, which is then catalyzed to innocuous O$_2$ and H$_2$O by glutathione peroxidase and catalase. Several classes of SOD have been identified. These include intracellular copper, zinc SOD (Cu, Zn SOD/SOD1), mitochondrial manganese SOD (Mn SOD/SOD2) and extracellular Cu, Zn SOD (EC SOD/SOD3).

**Cellular localization**

Cytoplasmic

---

**Images**

Park J et al investigates the recovery in erectile function after administration of chronic statin alone in DM (streptozotocin (STZ)-induced diabetes mellitus) rats. SOD activity was determined using Superoxide Dismutase activity assay kit (ab65354).

* Indicates statistical significance in comparison with DM group (P < 0.05).

# Indicates statistical significance in comparison with the statin group (P<0.05).

---

**Functions**

- **Components**
  - **100 tests**
    - SOD Assay Buffer: 1 x 20ml
    - SOD Dilution Buffer: 1 x 10ml
    - SOD Enzyme Solution: 1 x 20µl
    - WST Reagent II: 1 x 1ml
  - **2000 tests**
    - SOD Assay Buffer: 20 x 20ml
    - SOD Dilution Buffer: 20 x 10ml
    - SOD Enzyme Solution: 20 x 20µl
    - WST Reagent II: 20 x 1ml

---

**Storage instructions**

Store at +4°C. Please refer to protocols.
Superoxide dismutase measured in biofluids at various dilutions

Superoxidase dismutase (ab90040) measured showing inhibition rate (%) per concentration (microgram per mL)
Functional Studies - Superoxide Dismutase Activity
Assay Kit (Colorimetric) (ab65354)

Principle of Superoxide Dismutase Assay.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors