

General Superoxide Dismutase (SOD) Assay Kit | SOD assay kit

Superoxide Dismutase (SOD) Typed Activity Assay Kit (Hydroxylamine Method)

CATALOG #
AAA176972

REACTIVITY
General

PRODUCT SYNONYMS

Superoxide Dismutase (SOD); Superoxide Dismutase (SOD) Typed Activity Assay Kit (Hydroxylamine Method); SOD assay kit

PRODUCT SPECIFICATIONS

Reactivity	General
Specificity	96T (Can detect 92 samples without duplication)
Samples	Serum, plasma, urine, cells, cell culture supernatant and tissue homogenate samples
Detection Range	1.35-62 U/mL
Sensitivity	1.35 U/mL
Intra-assay Precision	The intra-assay CV is 5.1%.
Inter-assay Precision	The inter-assay CV is 9.6%.
Preparation and Storage	Reagent4: -20 degree C; Others: 2-8 degree C. Valid for 12 months.

ADDITIONAL INFORMATION

Related Product Information for SOD assay kit

Background: According to the literature, superoxide dismutase exists in all oxygenmetabolizing cells to protect cells from excessive superoxide. Under the action of SOD, two superoxide anions were converted to oxygen and hydrogen peroxide. In mammals, there are three different forms of SOD: CuZn-SOD, Mn-SOD and EC-SOD (an extracellular form of SOD). Cu-Zn SOD exists in the cytoplasmic and mitochondrial membrane spaces of the cells, while Mn-SOD is located in the mitochondrial matrix.

Principle of the Assay: Superoxide anion ($O_2^{\cdot-}$) produced by xanthine and xanthine oxidase system can oxidize hydroxylamine to form nitrite which appear purplish red after chromogenic reaction. The SOD in the sample has a specific inhibitory effect on superoxide anion ($O_2^{\cdot-}$), can reduce the content of nitrite. The OD value is lower than control and the activity of SOD is calculated through the formula. There are two kinds of SOD (CuZn-SOD, Mn-SOD) in the cells of higher animals, and the sum of them is equal to the total SOD. The activity of Mn-SOD in the sample will lost after sample pretreatment, but the activity of CuZn-SOD will not.

Intended Uses: This kit can be used to measure T-SOD, CuZn-SOD, Mn-SOD activity in serum, plasma, urine, cells, cell culture supernatant and tissue homogenate samples.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/general-assay-kits/superoxide-dismutase-sod/176972>