

## Superoxide Dismutase Assay Kit

### Product Information

**Cat.No.**

Kit-0792

**Product Overview**

Detection and Quantification of Superoxide Dismutase Activity.

**Description**

Superoxide Dismutases (SOD) catalyze the dismutation of the superoxide radical ( $O_2^-$ ) into hydrogen peroxide ( $H_2O_2$ ) and elemental oxygen ( $O_2$ ), and as such, provides an important defense against the toxicity of superoxide radical. SOD1 and SOD2-deficient mice spontaneously develop liver cancer and are prone to develop tumors, whereas over expression of SOD protects tumor cells from apoptosis. Superoxide Dismutase Assay Kit, ions generated from the conversion of xanthine to uric acid, and hydrogen peroxide by xanthine oxidase (XOD), convert NBT to NBT-diformazan. NBT-diformazan absorbs light at 560 nm. SODs reduce superoxide ion concentrations and thereby lower the rate of NBT-diformazan formation. The extent of reduction in the appearance of NBT-diformazan is a measure of SOD activity present in experimental samples.

**Applications**

Functional Assay

**Storage**

Shipped and store at 4°C for 6 months.

**Kit Components**

Component-Volume-Storage 1. 96-Well Microplate; 2. Extract: 30 ml x 2, 4°C; 3. Reagent I: 5 ml x 1, 4°C; 4. Reagent II: Powder x 5, 4°C; 5. Reagent III: 550 ul x 1, 4°C; 6. Reagent IV: 4 ml x 1, 4°C; 7. Technical Manual: 1 Manual Note: Reagent II: add 2 ml distilled water to dissolve before use.

**Detection method** Colorimetric

**Compatible Sample Types**

Urine; Serum; Plasma; Other biological fluids; Tissue Extracts; Cell Lysate; Cell culture media