Mouse Super Oxidase Dimutase,SOD ELISA Kit

Product Code	CSB-E08556m
Abbreviation	SOD1
Target Name	superoxide dismutase 1, soluble
Uniprot No.	P08228
Alias	ALS, ALS1, IPOA, SOD, homodimer, Cu/Zn superoxide dismutase|SOD, soluble|indophenoloxidase A|superoxide dismutase, cystolic
Product Type	ELISA Kit
Immunogen Species	Mus musculus (Mouse)
Sample Types	serum, plasma, tissue homogenates
Detection Range	5.4 pg/mL-4000 pg/mL
Sensitivity	5.4 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Metabolism
Quality Control	A microplate reader capable of measuring absorbance at 450 nm, with the correction wavelength set at 540 nm or 570 nm. An incubator can provide stable incubation conditions up to 37°C±5°C. Centrifuge Vortex Squirt bottle, manifold dispenser, or automated microplate washer Absorbent paper for blotting the microtiter plate 50-300ul multi-channel micropipette Pipette tips Single-channel micropipette with different ranges 100ml and 500ml graduated cylinders Deionized or distilled water Timer Test tubes for dilution
Gene Names	Sod1
Component	A micro ELISA plate ---The 96-well plate has been pre-coated with an anti-mouse SOD antibody. This dismountable microplate can be divided into 12 x 8 strip plates. Two vials lyophilized standard ---Dilute a bottle of the standard at dilution series, read the OD values, and then draw a standard curve. One vial Biotin-labeled SOD antibody (100 x concentrate) (120 µl/bottle) ---Act

as the detection antibody.
One vial HRP-avidin (100 x concentrate) (120 µl/bottle) ---Bind to the detection antibody and react with the TMB substrate to make the solution chromogenic.
One vial Biotin-antibody Diluent (15 ml/bottle) ---Dilute the Biotin-antibody.
One vial HRP-avidin Diluent (15 ml/bottle) ---Dilute the HRP-avidin solution.
One vial Sample Diluent (50 ml/bottle)---Dilute the sample to an appropriate concentration.
One vial Wash Buffer (25 x concentrate) (20 ml/bottle) ---Wash away unbound or free substances.
One vial TMB Substrate (10 ml/bottle) ---Act as the chromogenic agent. TMB interacts with HRP, eliciting the solution turns blue.
One vial Stop Solution (10 ml/bottle) ---Stop the color reaction. The solution color immediately turns from blue to yellow.
Four Adhesive Strips (For 96 wells) --- Cover the microplate when incubation.
An instruction manual

Description

The Mouse Super Oxidase Dimutase (SOD) ELISA Kit allows for the detection and quantification of SOD in mouse serum, plasma, or tissue homogenates. This kit has high sensitivity, excellent specificity, precision less than 10%, and consistency between batches. It employs the sandwich ELISA mechanism and enzyme-substrate chromogenic reaction to achieve the detection. The solution color develops in proportion to the amount of SOD in the sample, and the color intensity can be measured at 450 nm via a microplate reader.

SOD is a homo-dimeric metalloprotein that catalyzes the dismutation of the free superoxide (O2–) radical into molecular oxygen (O2) and hydrogen peroxide (H2O2). It primarily localizes to the cytoplasm but is also found in the nucleus and the intermembrane space (IMS) of the mitochondria. SOD is an important antioxidant defense in nearly all living cells exposed to oxygen. The dismutase activity of SOD may be essential to the accumulation of reactive oxygen species (ROS) and misfolded proteins in the IMS of the mitochondria. Additionally, heterozygous variants in SOD are a common cause of familial amyotrophic lateral sclerosis (ALS), a form of motor neuron disease.

Product Precision

Linearity

Recovery

Typical

Msds

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