

Datasheet for ABIN4986813

SOD1 ELISA Kit[Go to Product page](#)**1** Image

Overview

Quantity:	96 tests
Target:	SOD1
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	78-5000 pg/mL
Minimum Detection Limit:	78 pg/mL
Application:	ELISA

Product Details

Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (citrate), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	Natural and recombinant Human Cu/ZnSOD Ligand
Sensitivity:	40 pg/mL
Material not included:	• Microplate reader. • Pipettes and pipette tips. • EP tube Deionized or distilled water.

Target Details

Target:	SOD1
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Target Details

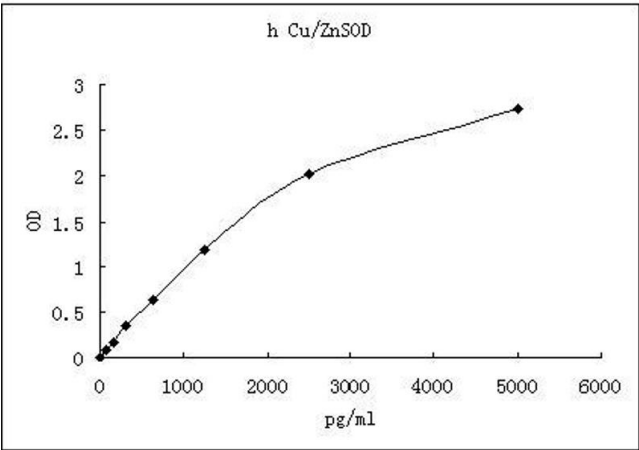
Alternative Name:	Cu/ZnSOD (SOD1 Products)
Background:	Superoxide Dismutases (SODs), originally identified as Indophenoloxidase (IPO), are enzymes that catalyze the conversion of naturally occurring but harmful superoxide radicals into molecular oxygen and hydrogen peroxide. Superoxide Dismutases 1, SOD1, also known as Cu/Zn SOD, soluble SOD and IPOA, is a soluble, cytoplasmic 16 kDa homodimer. Each SOD1 monomer binds one Cu²⁺ and one Zn²⁺ ion. Three isoforms of SOD have been identified and are functionally related but have very modest sequence homology. SOD1 shares 23 % and 27 % sequence identity with SOD2 and SOD3, respectively. Mutations in SOD1 have been implicated as causes of familial amyotrophic lateral sclerosis (ALS). The ALS-causing mutations of SOD1 are scattered throughout the protein and provide no clear functional or structural clues to the underlying disease mechanism. The oligomerization hypothesis suggests that mutant SOD1 proteins become misfolded and consequently oligomerize into high molecular weight aggregates that result in the death of motor neurons. The oxidative damage hypothesis suggests that loss of function mutation in SOD1 protein results in the accumulation of cellular superoxide radical, leading to free radical-mediated damage, the release of cytochrome c, and apoptosis.
Pathways:	Sensory Perception of Sound , Transition Metal Ion Homeostasis

Application Details

Application Notes:	Detection Wavelength: 450 nm
Sample Volume:	20 µL
Assay Time:	3 h
Plate:	Pre-coated
Restrictions:	For Research Use only

Handling

Storage:	4 °C
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ELISA

Image 1.