

Native Pig Superoxide Dismutase, GMP grade

Cat. No. SOD-01PG **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Native Pig SOD Protein purified from blood.
Species	Pig
Source	Blood
Description	Porcine SOD is a copper-zinc superoxide dismutase with a molecular weight of 32,000 Da. It forms a non-covalent homodimer from four subunits. Each subunit, composed of 152 amino acids and with a molecular weight of 16,000 Da, contains one disulfide bond and one free thiol group.
Molecular Mass	32 kDa
Extinction Coefficient	1E ⁴ mM = 10.3 (258nm) No significant peak at 280 nm due to the absence of tryptophan.
Optimal pH	7.8
Optimal Temperature	25 centigrade
Isoelectric Point	4.95
Inhibitors	Cyanide, OH ⁻ (competitive), hydrogen peroxide.
Unit Definition	At a constant temperature of 25 centigrade, one unit of enzyme activity is defined as

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the amount of enzyme required to inhibit the autoxidation rate of pyrogallol by 50% per minute in one milliliter of reaction mixture.

Stability

Lyophilized Powder: Stable for over three years at -20 centigrade. Stable for one year at 4 centigrade. Stable for six months at 25 centigrade. 1 mg/mL Solution in 0.1M Potassium Phosphate Buffer (pH 7.5): Stable for one hour at 60 centigrade. Stable for six hours at 25 centigrade. Stable for two days at 4 centigrade. Stable for over one year at -20 centigrade.

Reconstitution

SOD lyophilized powder is light blue-green. Dissolve it in 0.1 M potassium phosphate buffer (pH 7.5) to make a 1 mg/mL solution and aliquot for storage.

GENE INFORMATION**Synonyms**

SOD; superoxide dismutase

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