

## Product datasheet for TA326595

### Sod1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	0.5ug/ml was sufficient for detection of Cu/Zn SOD in 20ug of rat brain tissue extract
Reactivity:	Human, Rat, Mouse, Bovine
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Rat Cu/Zn SOD
Formulation:	PBS pH7.0, 50% glycerol, 0.09% sodium azide
Concentration:	lot specific
Purification:	Affinity (antigen) Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	superoxide dismutase 1, soluble
Database Link:	<a href="#">NP_058746</a> <a href="#">Entrez Gene 6647 Human</a> <a href="#">Entrez Gene 20655 Mouse</a> <a href="#">Entrez Gene 24786 Rat</a> <a href="#">P07632</a>

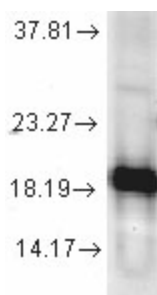
**Background:** Superoxide dismutase (SOD) is an endogenously produced intracellular enzyme present in almost every cell in the body . It works by catalyzing the dismutation of the superoxide radical O<sub>2</sub><sup>-</sup> to O<sub>2</sub> and H<sub>2</sub>O<sub>2</sub>, which are then metabolized to H<sub>2</sub>O and O<sub>2</sub> by catalase and glutathione peroxidase . In general, SODs play a major role in antioxidant defense mechanisms . There are two main types of SOD in mammalian cells. One form (SOD1) contains Cu and Zn ions as a homodimer and exists in the cytoplasm. The two subunits of 16 kDa each are linked by two cysteines forming an intra-subunit disulphide bridge . The second form (SOD2) is a manganese containing enzyme and resides in the mitochondrial matrix. It is a homotetramer of 80 kDa. The third form (SOD3 or EC-SOD) is like SOD1 in that it contains Cu and Zn ions, however it is distinct in that it is a homotetramer, with a mass of 30 kDa and it exists only in the extra-cellular space . SOD3 can also be distinguished by its heparin-binding capacity .


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**Synonyms:** ALS1; homodimer; IPOA; SOD

**Note:** Detects a ~23kDa (human) and 19kDa (other species) proteins corresponding to the molecular mass of Cu/Zn superoxide dismutase (SOD) on SDS PAGE immunoblots.

**Product images:**



Western blot analysis of Cu/Zn SOD, rat, in a human cell line mix using a 1:1000 dilution of the antibody