

## Rabbit antibody to mouse superoxide dismutase (SOD1; 24-36): whole serum

<b>Catalogue No.:</b>	R-126-100
<b>Description:</b>	<p>FUNCTION: Destroys radicals which are normally produced within the cells and which are toxic to biological systems. CATALYTIC ACTIVITY: <math>2 \text{ superoxide} + 2 \text{ H}^+ = \text{O}_2 + \text{H}_2\text{O}_2</math>. COFACTOR: Binds 1 copper ion per subunit. COFACTOR: Binds 1 zinc ion per subunit. SUBUNIT: Homodimer. SUBCELLULAR LOCATION: Cytoplasm. DISEASE: Defects in SOD1 are the cause of familial amyotrophic lateral sclerosis (FALS); also called amyotrophic lateral sclerosis 1 (ALS1 or ALS). ALS is a degenerative disorder of motoneurons in the cortex, brainstem and spinal cord. ALS is characterized by muscular weakness and atrophy beginning in the hands and spreading to the forearms and legs. Muscle fasciculations are commonly visible. Sensory abnormalities are absent. Death usually occurs within 2 to 5 years. ALS is sometimes referred to as Lou Gehrig disease after the famous American baseball player who was diagnosed with the disorder. FALS, the familial form of ALS, accounts for about 10% of the cases and is transmitted in an autosomal dominant manner. The mean age at onset of FALS is 45 years. MISCELLANEOUS: Zinc binding promotes dimerization. SIMILARITY: Belongs to the Cu-Zn superoxide dismutase family.</p>
<b>Batch No.:</b>	See product label
<b>Unit size:</b>	100 $\mu$ L
<b>Antigen:</b>	A synthetic peptide (ASGEPVV LSGQIT) as part of mouse superoxide dismutase (SOD1) protein (aa: 24-36) conjugated to diphtheria toxoid
<b>Other Names:</b>	Superoxide dismutase [Cu-Zn]; SOD1
<b>Accession:</b>	SODC_MOUSE
<b>Produced in:</b>	Rabbit
<b>Purity:</b>	Whole serum
<b>Applications:</b>	WB. A dilution of 1:500 to 1:1000 is recommended for this application. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
<b>Specificity:</b>	Specificity was confirmed by western blot detecting mouse superoxide dismutase (SOD1).
<b>Cross-reactivity:</b>	This antiserum is known to react with mouse and rat superoxide dismutase (SOD1) protein.
<b>Form:</b>	Lyophilised
<b>Reconstitution:</b>	Reconstitute in 100 $\mu$ L of sterile water. Centrifuge to remove any insoluble material.
<b>Storage:</b>	After reconstitution keep aliquots at -20C for a higher stability, and at 2-8C with an appropriate antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive freeze/thaw cycles.
<b>Specific References:</b>	Park KH et al. (2013) Postnatal muscle modification by myogenic factors modulates neuropathology and survival in an ALS mouse model. Nat Commun. 2013;4:2906.
<b>General References:</b>	1. Jabusch J.R, et al. Biochemistry 19:2310-2316(1980). 2. Levanon D, et al. EMBO J. 4:77-84(1985). 3. Hallewell R.A, et al. Nucleic Acids Res. 13:2017-2034(1985).

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Western blot detection of mouse SOD1 in mouse brain tissue extract (lane 1) when using Rabbit antibody to mouse superoxide dismutase (SOD1; 24-36): whole serum (catalogue no. R-126-100) at a dilution of 1:500. The immunoreactivity of this antibody is completely abolished when it is pre-incubated with the immunising SOD1 peptide (lane 2).

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