

## Product Datasheet

### SOD2 (Mn) Antibody (FITC) (orb151463)

<b>Catalog Number</b>	orb151463
<b>Category</b>	Antibodies
<b>Description</b>	<p>Rabbit polyclonal to SOD (FITC). 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 <math>O_2^-</math> to <math>O_2</math> and <math>H_2O_2</math>, which are then metabolized to <math>H_2O</math> and <math>O_2</math> by catalase and glutathione peroxidase (2,5). 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..</p>
<b>Target</b>	SOD2 (Mn)
<b>Clonality</b>	Polyclonal
<b>Species/Host</b>	Rabbit
<b>Conjugation</b>	FITC
<b>Reactivity</b>	Bovine, Canine, Frog, Gallus, Guinea pig, Hamster, Human, Monkey, Mouse, Porcine, Rabbit, Rat, Rodent, Sheep
<b>Concentration</b>	1 mg/ml
<b>Buffer/Preservatives</b>	640.91mM DMSO, 136.36 mM Ethanolamine, 126.89 mM chlorides, 9.09mM phosphates, 9.09mM $NaHCO_3$

#### Biorbyt Ltd.

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

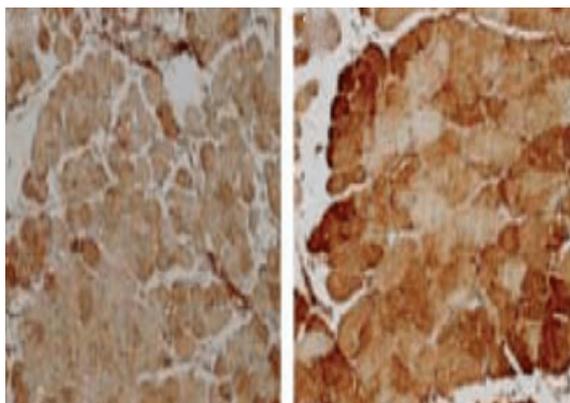
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

#### Biorbyt LLC

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

<b>Purification</b>	Protein A Purified
<b>Immunogen</b>	Recombinant Human Mn SOD Protein
<b>UniProt ID</b>	<b>P04179</b>
<b>MW</b>	25kDa
<b>Tested applications</b>	ELISA, IHC, IP, WB
<b>Dilution range</b>	WB (1:5000), IHC (1:100)
<b>Application notes</b>	0.2 µg/ml was sufficient for detection of Mn SOD in 20 µg of rat brain tissue extract by colorimetric immunoblot analysis using Goat anti-mouse IgG:AP as the secondary antibody.
<b>Specificity</b>	Detects ~25kDa.
<b>Storage</b>	Conjugated antibodies should be stored according to the product label
<b>Note</b>	For research use only
<b>Entrez</b>	<b>6648</b>
<b>NCBI</b>	<b>NP_000627.2</b>



Immunohistochemistry analysis using Rabbit Anti-SOD2 Polyclonal Antibody. Tissue: muscle fibres. Species: Rat. Primary Antibody: Rabbit Anti-SOD2 Polyclonal Antibody at 1:100. Left: Untreated, Right: treated with 3mmol\*kg-1 NAC.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

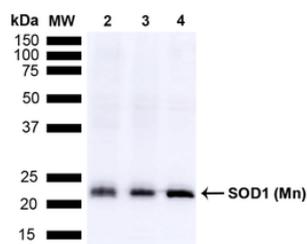
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)



Western blot analysis of Mouse Brain, Rat Brain, and Rat Brain Membrane showing detection of 24.7kDa SOD (Mn) protein using Rabbit Anti-SOD (Mn) Polyclonal Antibody. Lane 1: MW Ladder. Lane 2: Mouse Brain (15 µg). Lane 3: Rat Brain (15 µg). Lane 4: Rat Brain Membrane (15 µg). Block: 5% Skim Milk powder in TBST. Primary Antibody: Rabbit Anti-SOD (Mn) Polyclonal Antibody at 1:1000 for O/N at 4°C. Secondary Antibody: Goat anti-rabbit IgG:HRP at 1:5000 for 1 hour at RT with shaking. Color Development: Chemiluminescent for HRP (Moss) for 5 min in RT. Predicted/Observed Size: 24.7kDa.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)