

## Product datasheet for **CF500495**

### Superoxide Dismutase 1 (SOD1) Mouse Monoclonal Antibody [Clone ID: OT18B10]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OT18B10
Applications:	FC, IHC, WB
Recommended Dilution:	WB 1:1000~2000, IHC 1:50, FLOW 1:100
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human SOD1 (NP_000445) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	15.8 kDa
Gene Name:	superoxide dismutase 1
Database Link:	<a href="#">NP_000445</a> <a href="#">Entrez Gene 6647 Human P00441</a>



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**Background:**

The protein encoded by this gene binds copper and zinc ions and is one of two isozymes responsible for destroying free superoxide radicals in the body. The encoded isozyme is a soluble cytoplasmic protein, acting as a homodimer to convert naturally-occurring but harmful superoxide radicals to molecular oxygen and hydrogen peroxide. The other isozyme is a mitochondrial protein. Mutations in this gene have been implicated as causes of familial amyotrophic lateral sclerosis. Rare transcript variants have been reported for this gene. [provided by RefSeq]

**Synonyms:**

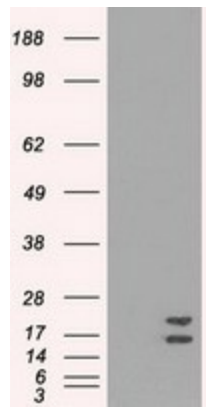
ALS; ALS1; HEL-S-44; homodimer; hSod1; IPOA; SOD

**Protein Families:**

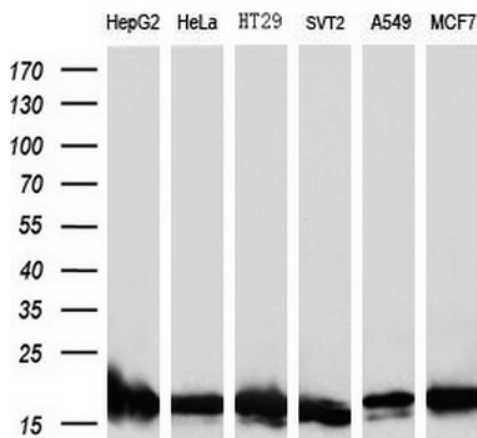
Druggable Genome

**Protein Pathways:**

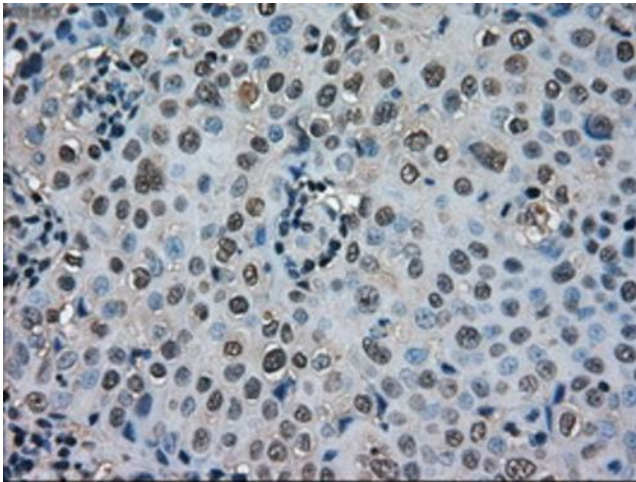
Amyotrophic lateral sclerosis (ALS), Huntington's disease, Prion diseases

**Product images:**


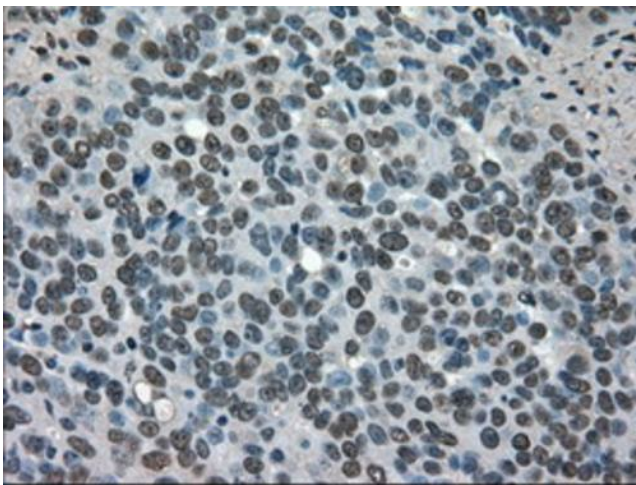
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SOD1 (Cat# [RC200725], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SOD1 (Cat# [TA500495]). Positive lysates [LY400160] (100ug) and [LC400160] (20ug) can be purchased separately from OriGene.



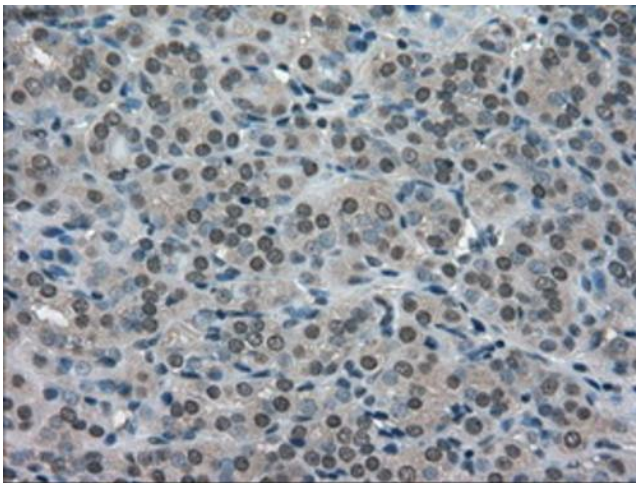
Western blot analysis of extracts (35ug) from 6 different cell lines by using anti-SOD1 monoclonal antibody (HepG2: human; HeLa: human; HT29: human; SVT2: mouse; A549: human; MCF7: human).



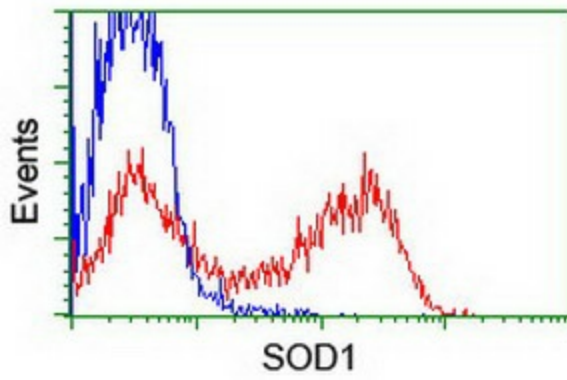
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue using anti-SOD1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-SOD1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-SOD1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



HEK293T cells transfected with either [RC200725] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-SOD1 antibody ([TA500495]), and then analyzed by flow cytometry.