

Product datasheet for **TA326813S**

Superoxide Dismutase 1 (SOD1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, ICC/IF, IHC, IP, WB
Recommended Dilution:	WB, 1:500 - 1:1000 IHC-P, 1:50 - 1:200 IF/ICC, 1:50 - 1:200 IP, 0.5µg-4µg antibody for 200µg-400µg extracts of whole cells ELISA, Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	16kDa
Gene Name:	superoxide dismutase 1, soluble
Database Link:	NP_000445 Entrez Gene 20655 Mouse Entrez Gene 24786 Rat Entrez Gene 6647 Human P00441



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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. In addition, this protein contains an antimicrobial peptide that displays antibacterial, antifungal, and anti-MRSA activity against *E. coli*, *E. faecalis*, *S. aureus*, *S. aureus* MRSA LPV+, *S. agalactiae*, and yeast *C. krusei*. Mutations in this gene have been implicated as causes of familial amyotrophic lateral sclerosis. Rare transcript variants have been reported for this gene.

Synonyms:

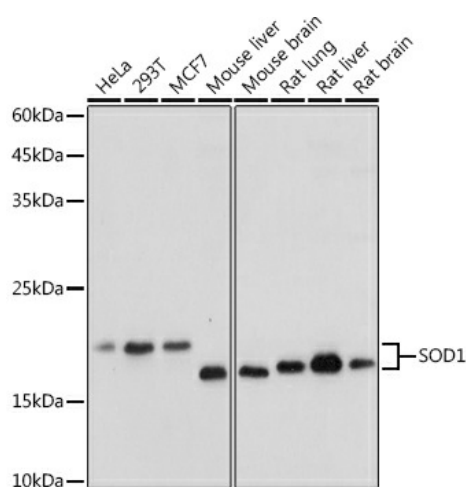
ALS; ALS1; HEL-S-44; homodimer; hSod1; IPOA; SOD

Protein Families:

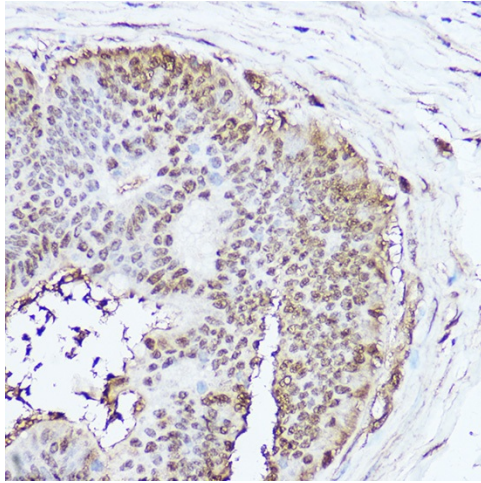
Druggable Genome

Protein Pathways:

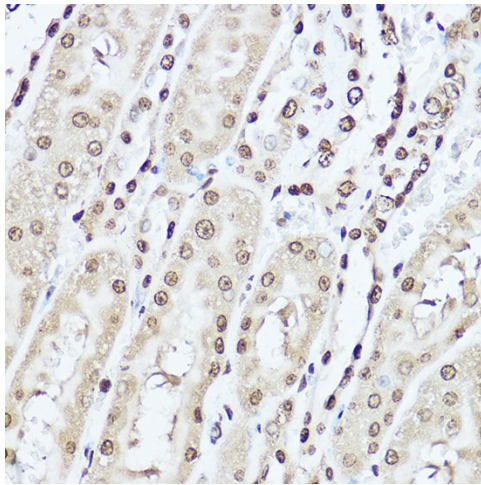
Amyotrophic lateral sclerosis (ALS), Huntington's disease, Prion diseases

Product images:


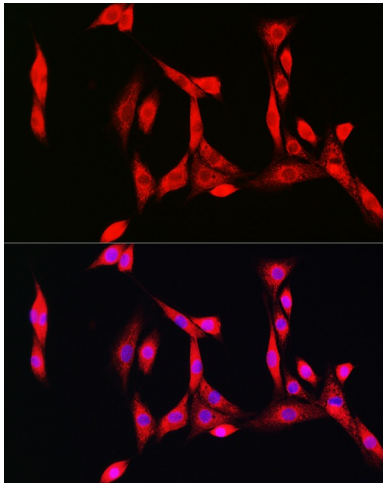
Western blot analysis of various lysates using SOD1 Rabbit pAb ([TA326813S]) at 1:1000 dilution. Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: 1s.



Immunohistochemistry analysis of paraffin-embedded Human colon carcinoma using SOD1 Rabbit pAb ([TA326813]) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat kidney using SOD1 Rabbit pAb ([TA326813]) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IHC staining.



Immunofluorescence analysis of NIH/3T3 cells using SOD1 Rabbit pAb ([TA326813]) at dilution of 1:100 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.