SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-SOD1 antibody

SL1079R

Product Name:	SOD1
Chinese Name:	超氧化物歧化酶1/铜,锌过氧化物歧化酶SOD抗体
Alias:	Superoxide Dismutase 1; ALS 1; ALS; ALS1; Amyotrophic lateral sclerosis 1 adult; Amyotrophic lateral sclerosis 1; Cu/Zn SOD; Cu/Zn superoxide dismutase; Homodimer; Indophenoloxidase A; IPOA; Mn superoxide dismutase; SOD 1; SOD; SOD soluble; SOD1; SOD2; SODC; Soluble indophenoloxidase A; Superoxide dismutase 1; Superoxide dismutase 1 soluble; Superoxide dismutase Cu Zn; Superoxide dismutase cystolic; SODC_HUMAN; Superoxide dismutase [Cu-Zn]; hSod1; Ipo1; SODC; Ipo-1; Sod-1; CuZnSOD; Cu/Zn-SOD; MGC107553; B430204E11Rik; superoxide-dimutase-1.
文献引用 PubMed :	**Specific References(1)**|SL1079R has been referenced in 1 publications. **[IF=3.15]**Li, Hongyan, et al. "Differential proteome and gene expression reveal response to carbon ion irradiation in pubertal mice testes." Toxicology Letters (2014).**WB;Mouse.** PubMed:24440814
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,
Applications:	IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=3ug/Test（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	17kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SOD1:101-154/154
Lsotype:	IgG
Purification:	affinity purified by Protein A

Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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-occuring 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, Jul 2008] **Function:** Destroys radicals which are normally produced within the cells and which are toxic to biological systems. **Subunit:** Homodimer; non-disulfide linked. Homodimerization may take place via the ditryptophan cross-link at Trp-33. The pathogenic variants ALS1 Arg-38, Arg-47, Arg-86 and Ala-94 interact with RNF19A, whereas wild-type protein does not. The pathogenic variants ALS1 Arg-86 and Ala-94 interact with MARCH5, whereas wild-type protein does not. **Subcellular Location:** Cytoplasm. Note=The pathogenic variants ALS1 Arg-86 and Ala-94 gradually aggregates and accumulates in mitochondria. **Post-translational modifications:** Unlike wild-type protein, the pathogenic variants ALS1 Arg-38, Arg-47, Arg-86 and Ala-94 are polyubiquitinated by RNF19A leading to their proteasomal degradation. The pathogenic variants ALS1 Arg-86 and Ala-94 are ubiquitinated by MARCH5 leading to their proteasomal degradation. The ditryptophan cross-link at Trp-33 is responsible for the non-disulfide-linked homodimerization. Such modification might only occur in extreme conditions and additional experimental evidence is required. **DISEASE:** Defects in SOD1 are the cause of amyotrophic lateral sclerosis type 1 (ALS1) [MIM:105400]. ALS1 is a familial form of amyotrophic lateral sclerosis, a neurodegenerative disorder affecting upper and lower motor neurons and resulting in fatal paralysis. Sensory abnormalities are absent. Death usually occurs within 2 to 5 years. The etiology of amyotrophic lateral sclerosis is likely to be multifactorial, involving both genetic and environmental factors. The disease is inherited in 5-10% of cases leading to familial forms.

Similarity:
Belongs to the Cu-Zn superoxide dismutase family.

SWISS:
P00441

Gene ID:
6647

Database links:

Entrez Gene: 6647 Human

Entrez Gene: 20655 Mouse

Entrez Gene: 24786 Rat

Omim: 147450 Human

SwissProt: P00441 Human

SwissProt: P08228 Mouse

SwissProt: P07632 Rat

Unigene: 443914 Human

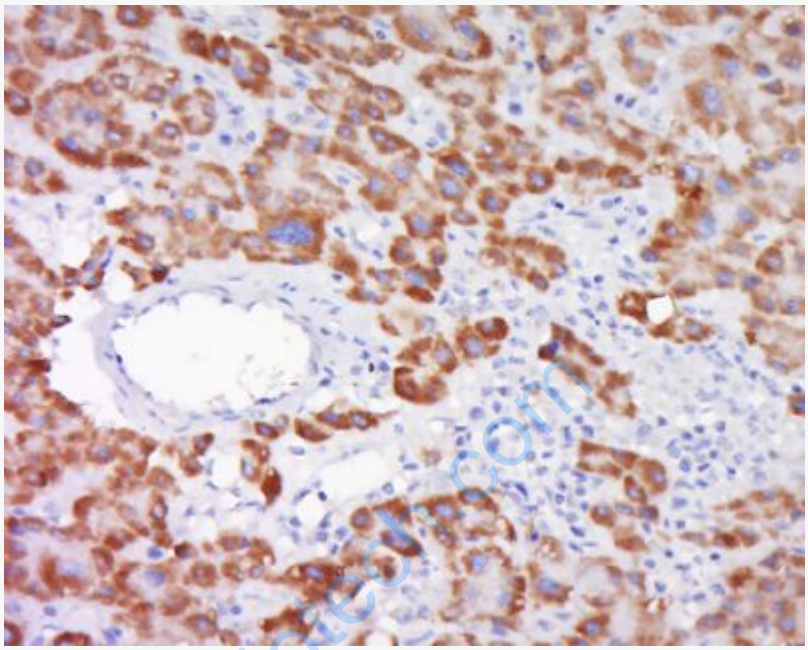
Unigene: 276325 Mouse

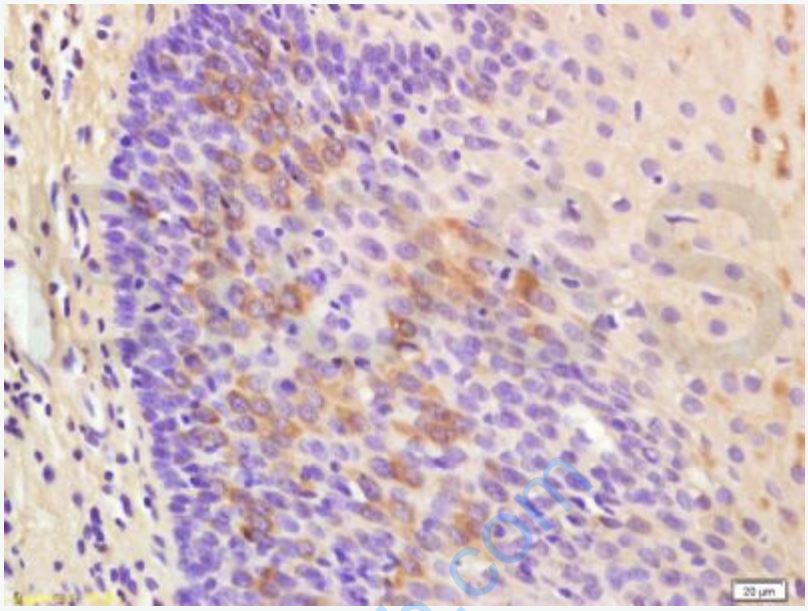
Unigene: 466779 Mouse

Unigene: 6059 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

超氧化物歧化酶又称铜/锌过氧化物歧化酶SOD(Superoxide dismutase，简称SOD)是参与机体抗氧化(ROS，反应性氧离子reactive oxygen species)防御机制和抵御细胞氧化损伤最重要的酶类之一，广泛存在于需氧生物、耐氧生物及某些厌氧微生物中，目前已知的SOD主要分为三类，即胞质中Cu/Zn-SOD(即SOD1)、Mitochondrion中的Mn-SOD(即SOD2)和ec-SOD(即SOD3)。
超氧化物歧化酶-

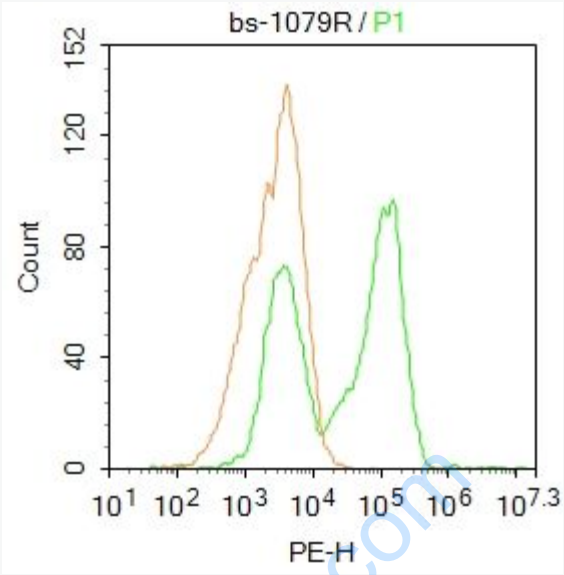
	1SOD1的水平与很多生理反应有关，如:应急，热休克，紫外和X线照射等。SOD1水平降低能触发AP2转录因子的激活。SOD1在临床上对很多疾病诊断有重要意义。
Picture:	 Tissue/cell: human liver cancer; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-SOD1 Polyclonal Antibody, Unconjugated(SL1079R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human oral squamous cell carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-SOD1/SOD Polyclonal Antibody, Unconjugated(SL1079R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: HepG2.

Primary Antibody (green line): Rabbit Anti-SOD1 antibody (SL1079R)

Dilution: 1µg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-PE

Dilution: 1µg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20℃. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.