

Datasheet for ABIN361652

anti-SOD1 antibody**3** Images**4** Publications[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	SOD1
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunocytochemistry (ICC), Immunofluorescence (IF)

Product Details

Immunogen:	Synthetic Rat Cu/Zn SOD Peptide
Specificity:	Detects ~23 kDa (human) and ~19 kDa (other species).
Cross-Reactivity:	Cow, Fusarium, Human, Mouse, Rat
Purification:	Protein A Purified

Target Details

Target:	SOD1
Alternative Name:	SOD1 (SOD1 Products)
Background:	Superoxide dismutase (SOD) is an endogenously produced intracellular enzyme present in almost every cell in the body (3). It works by catalyzing the dismutation of the superoxide radical O_2^- to O_2 and H_2O_2 , which are then metabolized to H_2O and O_2 by catalase and glutathione peroxidase (2,5). In general, SODs play a major role in antioxidant defense

Target Details

mechanisms (4). 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 (3). 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 (7). SOD3 can also be distinguished by its heparin-binding capacity (1).

Gene ID: 24786

NCBI Accession: [NP_058746](#)

UniProt: [P07632](#)

Pathways: [Sensory Perception of Sound](#), [Transition Metal Ion Homeostasis](#)

Application Details

Application Notes:

- WB (1:2000)
- ICC/IF (1:120)
- optimal dilutions for assays should be determined by the user.

Comment: 0.5 µg/ml of ABIN361651 was sufficient for detection of Cu/Zn SOD in 20 µg of rat brain tissue extract by colorimetric immunoblot analysis using Goat anti-rabbit IgG:AP as the secondary antibody.

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

Buffer: PBS pH 7.0, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated

Preservative: Sodium azide

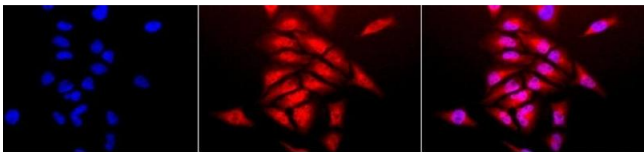
Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

Storage Comment: -20°C

Product cited in: Jiao, Wei, Chen, Li, Wang, Li, Guo, Zhang, Wei: "Cartilage oligomeric matrix protein and hyaluronic acid are sensitive serum biomarkers for early cartilage lesions in the knee joint." in: **Biomarkers : biochemical indicators of exposure, response, and susceptibility to chemicals**, Vol. 21, Issue 2, pp. 146-51, (2016) ([PubMed](#)).

Images



Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-SOD (Cu/Zn) Polyclonal Antibody (ABIN361651 and ABIN361652). Tissue: Cervical cancer cell line (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-SOD (Cu/Zn) Polyclonal Antibody (ABIN361651 and ABIN361652) at 1:120 for 12 hours at 4 °C. Secondary Antibody: APC Goat Anti-Rabbit (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Nucleus. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-SOD (Cu/Zn) Antibody. (C) Composite.

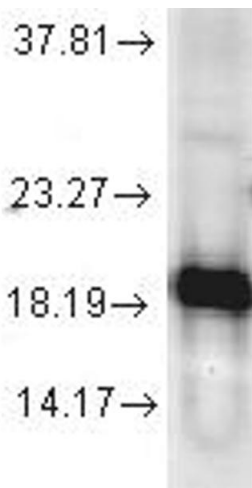
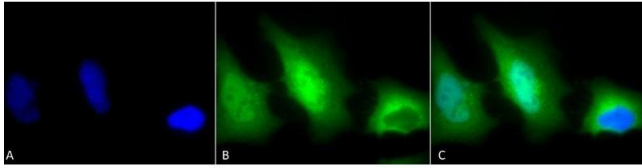


Image 2. CuZn SOD (Rat), Human Cell line mix copy.



Immunocytochemistry

Image 3. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-SOD (Cu/Zn) Polyclonal Antibody (ABIN361651 and ABIN361652). Tissue: Cervical cancer cell line (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-SOD (Cu/Zn) Polyclonal Antibody (ABIN361651 and ABIN361652) at 1:120 for 12 hours at 4 °C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Nucleus. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-SOD (Cu/Zn) Antibody. (C) Composite.