

Datasheet for ABIN361646

**anti-SOD1 antibody**

3 Images

5 Publications

[Go to Product page](#)

## Overview

Quantity:	100 µg
Target:	SOD1
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SOD1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP)

## Product Details

Immunogen:	Synthetic Human Cu/Zn SOD Peptide
Specificity:	Detects ~23 kDa (human) and ~19 kDa (other species).
Cross-Reactivity:	Coral, Cow, Dog, Fish, Hamster, Human, Invertebrate, Mollusca, Monkey, Mouse, Pig, Rabbit, Rat, Sheep, Xenopus laevis
Purification:	Protein A Purified

## Target Details

Target:	SOD1
Alternative Name:	SOD1 ( <a href="#">SOD1 Products</a> )
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

## Target Details

glutathione peroxidase (2,5). In general, SODs play a major role in antioxidant defense 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: 6647

NCBI Accession: [NP\\_000445](#)

UniProt: [P00441](#)

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

## Application Details

Application Notes:

- WB (1:5000)
- IHC (1:100)
- optimal dilutions for assays should be determined by the user.

Comment: 0.2 µg/ml of ABIN361645 was sufficient for detection of Cu/Zn SOD in 20 µg of HeLa cell lysate 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

## Publications

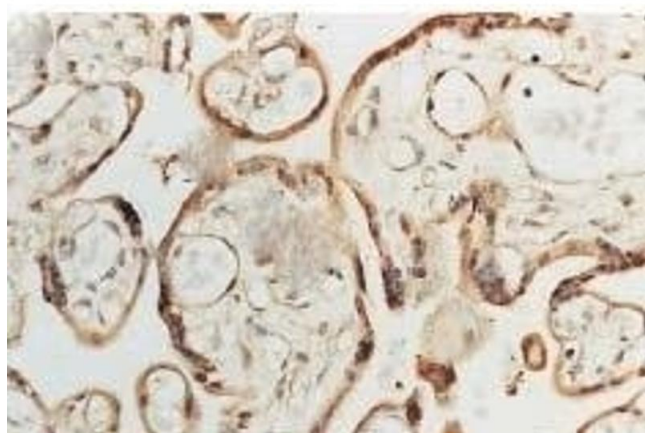
Product cited in:

Wang, He, Meng, Liu, Pu, Ji: "A proteomics analysis of rat liver membrane skeletons: the investigation of actin- and cytokeratin-based protein components." in: **Journal of proteome research**, Vol. 9, Issue 1, pp. 22-9, (2010) ([PubMed](#)).

Liao, Wang, Chen, Wang, Wu: "Lipopolysaccharide-induced inhibition of connexin43 gap junction communication in astrocytes is mediated by downregulation of caveolin-3." in: **The international journal of biochemistry & cell biology**, Vol. 42, Issue 5, pp. 762-70, (2010) ([PubMed](#)).

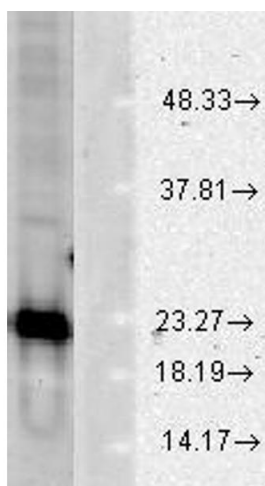
Han, Yang, Yue, Huang, Liu, Pu, Jiang, Yan, Jiang, Kang: "Inactivation of PI3K/AKT signaling inhibits glioma cell growth through modulation of  $\beta$ -catenin-mediated transcription." in: **Brain research**, Vol. 1366, pp. 9-17, (2010) ([PubMed](#)).

## Images



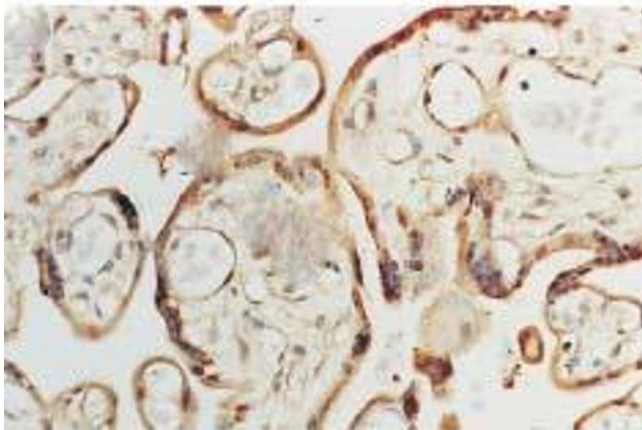
### Immunohistochemistry

**Image 1.** Immunohistochemistry analysis using Rabbit Anti-SOD1 Polyclonal Antibody (ABIN361645 and ABIN361646). Tissue: Placenta. Species: Human. Primary Antibody: Rabbit Anti-SOD1 Polyclonal Antibody (ABIN361645 and ABIN361646) at 1:100. Courtesy of: Courtesy of Joan Telfer, University of Glasgow.



### Western Blotting

**Image 2.** CuZn SOD Human Cell line mix 10ug WB 1 in 1000 WB.



#### Immunocytochemistry

**Image 3.** SOD (human), human placenta.