Datasheet for ABIN2482054

anti-SOD3 antibody (AA 227-236) (Biotin)

3 Images

Go to Product page

Overview

Quantity:	100 µg
Target:	SOD3
Binding Specificity:	AA 227-236
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SOD3 antibody is conjugated to Biotin
Application:	Western Blotting (WB), Immunocytochemistry (ICC), Immunofluorescence (IF)

Product Details

Immunogen:	Peptide corresponding to AA 227-236 of human EC SOD
Specificity:	Detects extracellular SOD ~35 kDa.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Peptide Affinity Purified

Target Details

Target:	SOD3
Alternative Name:	SOD3 (SOD3 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

Target Details

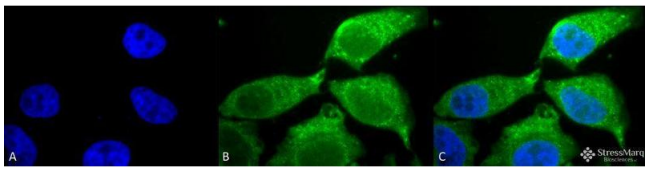
	radical $O2^-$ to O2 and H2O2, which are then metabolized to H2O and O2 by catalase and glutathione peroxidase (2, 5). In general, SODs play a major role in antioxidant defense mechanisms (4). There are three types of SOD in mammalian cells. One form (SOD1) contains Cu and Zn ions as a homodimer and 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 (6). SOD3 can also be distinguished by its heparin-binding capacity (1).
Gene ID:	6649
UniProt:	P08294

Application Details

Application Notes:	• WB (1:1000) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN2482054 was sufficient for detection of ECSOD in 20 µg of Hela lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

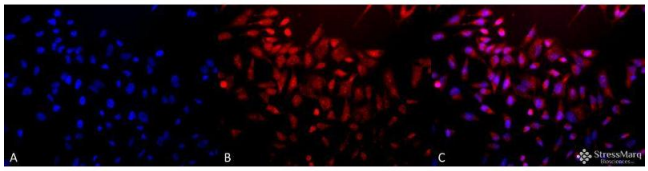
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 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:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C



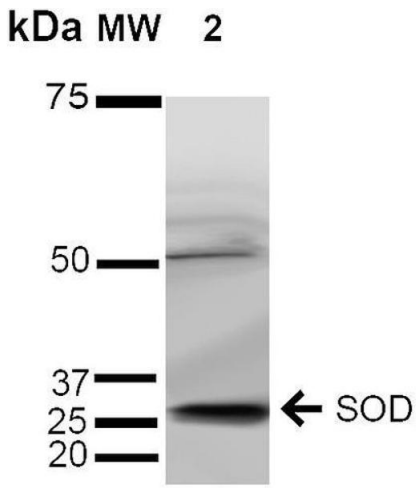
Immunofluorescence (fixed cells)

Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-SOD (EC) Polyclonal Antibody . Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-SOD (EC) Polyclonal Antibody at 1:100 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. Golgi lumen. Exosome. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-SOD (EC) Antibody. (C) Composite.



Immunofluorescence (fixed cells)

Image 2. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-SOD (EC) Polyclonal Antibody . Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-SOD (EC) Polyclonal Antibody at 1:100 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. Golgi lumen. Exosome. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-SOD (EC) Antibody. (C) Composite.



Western Blotting

Image 3. Western blot analysis of Human Cervical Cancer cell lysates (HeLa) showing detection of ~35 kDa SOD (EC) protein using Rabbit Anti-SOD (EC) Polyclonal Antibody . Lane 1: Molecular Weight Ladder (MW). Lane 2: Human Cervical Cancer cell lysates (HeLa). Load: 15 µg. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Rabbit Anti-SOD (EC) Polyclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Rabbit HRP:IgG at 1:2000 for 60 min at RT. Color Development: ECL solution for 5 min at RT. Predicted/Observed Size: ~35 kDa. Other Band(s): 50

kDa.

