Datasheet for ABIN361742

anti-SOD3 antibody

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Overview

Quantity:	100 µg
Target:	SOD3
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunocytochemistry (ICC), Immunofluorescence (IF)

Product Details

Immunogen:	Human extracellular SOD purified from aortas
Clone:	4GG11G6
Isotype:	IgG1 kappa
Specificity:	Detects extracellular SOD ~35 kDa.
Cross-Reactivity:	Guinea Pig, Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	SOD3
Alternative Name:	SOD3 (SOD3 Products)
Background:	Superoxide dismutase (SOD) is an endogenously produced intracellular enzyme present in

Target Details

	almost every cell in the body (3). It works by catalyzing the dismutation of the superoxide 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
NCBI Accession:	NP_003093
UniProt:	P08294

Application Details

Application Notes:	• WB (1:1000) • IHC (1:100) • ICC/IF (1:100) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN361741 was sufficient for detection of EC-SOD in 20 µg of human cartilage lysate by colorimetric immunoblot analysis using Goat anti-mouse 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.

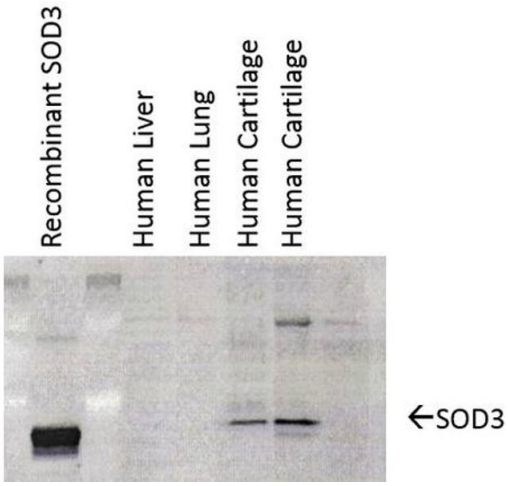
Handling

Storage:	-20 °C
Storage Comment:	-20°C

Publications

Product cited in:	Chen, Cai, Liu: "A single molecule assay for ultrasensitive detection of Fn14 in human serum." in: **Analytical biochemistry**, Vol. 587, pp. 113467, (2020) (PubMed).

Images



Western Blotting

Image 1. Western Blot analysis of Human cartilage lysates showing detection of SOD3 protein using Mouse Anti-SOD3 Monoclonal Antibody, Clone 4GG11G6 (ABIN361741 and ABIN361742). Primary Antibody: Mouse Anti-SOD3 Monoclonal Antibody (ABIN361741 and ABIN361742) at 1:1000. Left: Control, Middle: Young cartilage, Right: Cartilage sample with osteoarthritis-arthritis..

Image 2. EC SOD (4GG11G6), Human cartilage, ICC Left control, middle young, right cartilage with osterarthritis

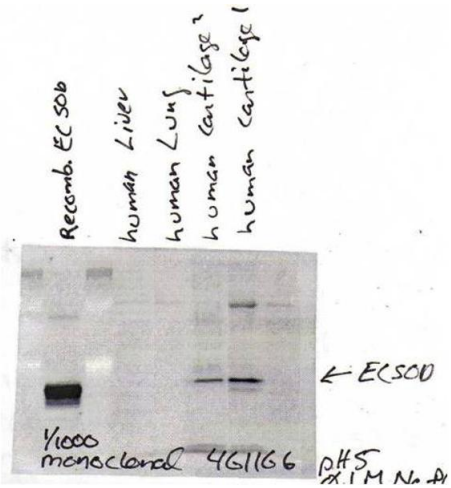


Image 3. EC-SOD, (4GG11G6, human cartilage)

Please check the product details page for more images. Overall 4 images are available for ABIN361742.