Product Datasheet

SOD (EC) Antibody: HRP (orb147621)

Description	Mouse monoclonal to SOD (HRP). Superoxide dismutase (SOD) is an endogenously produced intracellular enzyme present in almost every cell in the body. 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. 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. 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. SOD3 can also be distinguished by its heparin-binding capacity..
Species/Host	Mouse
Reactivity	Guinea pig, Human, Mouse, Rat
Conjugation	HRP
Tested Applications	ELISA, IHC, WB
Immunogen	Human extracellular SOD purified from aortas
Target	SOD3
Preservatives	73.64mM Carbonate, 54.55mM Ethanolamine, 45.45mM Cyanoborohydride, 18.18mM Sodium Hydroxide and 0.23mM Citrate in dH2O
Concentration	1 mg/ml
Storage	Conjugated antibodies should be stored according to the product label
Note	For research use only

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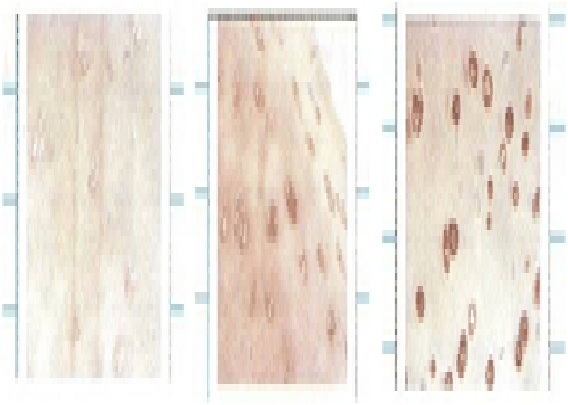
Application notes	1 µg/ml of SMC-167 was sufficient for detection of EC-SOD in 20 µg of human cartilage lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Isotype	IgG1 Kappa
Clonality	Monoclonal
Clone Number	4GG11G6
MW	35kDa
Uniprot ID	**P08294**
NCBI	**NP_003093.2**
Entrez	**6649**
Dilution Range	WB (1:1000), IHC (1:100), ICC/IF (1:100)
Expiration Date	12 months from date of receipt.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-SOD3 Monoclonal Antibody, Clone 4GG11G6. Tissue: cartilage. Species: Human. Primary Antibody: Mouse Anti-SOD3 Monoclonal Antibody at 1:1000. Left: control, middle: young cartilage, right: cartilage with osteoarthritis.

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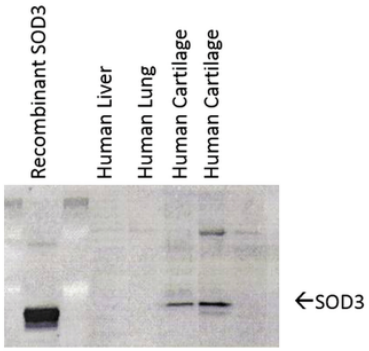

Western Blot analysis of Human cartilage lysates showing detection of SOD3 protein using Mouse Anti-SOD3 Monoclonal Antibody, Clone 4GG11G6. Primary Antibody: Mouse Anti-SOD3 Monoclonal Antibody at 1:1000. Left: Control, Middle: Young cartilage, Right: Cartilage sample with osteoarthritis-arthritis.

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