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# Superoxide Dismutase 3 Antibody

Rabbit mAb
Catalog # AP91464

## Product Information

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| **Application** | WB, IHC |
| **Primary Accession** | P08294 |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Other Names** | EC SOD; Extracellular superoxide dismutase [Cu Zn]; Extracellular superoxide dismutase precursor; SOD3; Superoxide dismutase 3 extracellular; |
| **Isotype** | Rabbit IgG |
| **Host** | Rabbit |
| **Calculated MW** | 25851 |

## Additional Information

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| **Dilution** | WB 1:500~1:2000 IHC 1:50~1:200 |
| **Purification** | Affinity-chromatography |
| **Immunogen** | A synthesized peptide derived from human Superoxide Dismutase 3 |
| **Description** | Protect the extracellular space from toxic effect of reactive oxygen intermediates by converting superoxide radicals into hydrogen peroxide and oxygen. |
| **Storage Condition and Buffer** | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |

## Protein Information

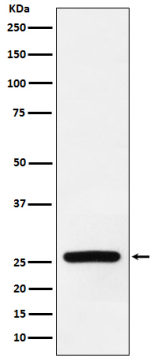
| | |
|---|---|
| **Name** | SOD3 ( HGNC:11181) |
| **Function** | Secreted antioxidant enzyme that acts as the primary scavenger of superoxide radicals in the extracellular space, converting them to hydrogen peroxide and thereby protecting tissues from oxidative damage (PubMed:12933702, PubMed:15761197). Also preserves nitric oxide bioavailability by preventing the formation of harmful peroxynitrite (PubMed:12933702). Stored in intracellular pre-formed vesicles of macrophages and neutrophils and released upon stimulation by inflammatory mediators (PubMed:31326693). |
| **Cellular Location** | Secreted, extracellular space. Golgi apparatus, trans-Golgi network {ECO:0000250\|UniProtKB:O09164}. Vesicle Note=99% of SOD3/EC-SOD is anchored to heparan sulfate proteoglycans in the tissue interstitium, and 1% is located in the vasculature in equilibrium between the plasma and the endothelium (PubMed:8546689). In macrophages and neutrophiles, extracellular SOD2 in endocytosed and stored in intracellular vesicles |

(PubMed:31326693)

**Tissue Location**

Expressed in blood vessels, heart, lung, kidney and placenta. Major SOD isoenzyme in extracellular fluids such as plasma, lymph and synovial fluid (PubMed:7959763). Stored in macrophages intracellular compartments (PubMed:31326693)

## Images




Western blot analysis of Superoxide Dismutase 3 expression in human fetal heart lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.