

Anti-SOD3 Antibody

Catalog # ABO11203

Product Information

Application	WB, IHC-P, IHC-F, ICC
Primary Accession	P08294
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Extracellular superoxide dismutase[Cu-Zn](SOD3) detection. Tested with WB, IHC-P, IHC-F, ICC in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6649
Other Names	Extracellular superoxide dismutase [Cu-Zn], EC-SOD, 1.15.1.1, SOD3
Calculated MW	25851
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, By Heat Immunocytochemistry , 0.5-1 μ g/ml, Human, - Immunohistochemistry(Frozen Section), 0.5-1 μ g/ml, Human, - Western blot, 0.1-0.5 μ g/ml, Human
Subcellular Localization	Secreted, extracellular space. 99% of 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.
Tissue Specificity	Expressed in blood vessels, heart, lung, kidney and placenta. Major SOD isoenzyme in extracellular fluids such as plasma, lymph and synovial fluid.
Source	Eukaryota
Protein Name	Extracellular superoxide dismutase[Cu-Zn]
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SOD3 (41-56aa KVTEIWQEVMQRRDDD).

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the Cu-Zn superoxide dismutase family.

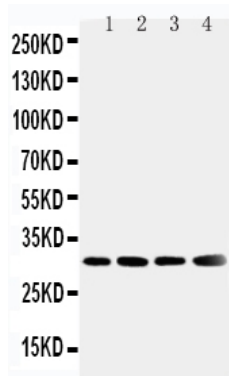
Protein Information

Name	SOD3
Function	Protect the extracellular space from toxic effect of reactive oxygen intermediates by converting superoxide radicals into hydrogen peroxide and oxygen.
Cellular Location	Secreted, extracellular space. Golgi apparatus, trans-Golgi network {ECO:0000250 UniProtKB:O09164}. Note=99% of 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
Tissue Location	Expressed in blood vessels, heart, lung, kidney and placenta. Major SOD isoenzyme in extracellular fluids such as plasma, lymph and synovial fluid

Background

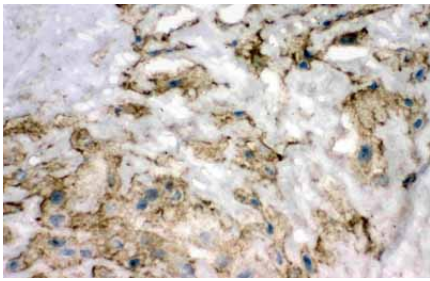
SOD3(SUPEROXIDE DISMUTASE 3) also called SUPEROXIDE DISMUTASE, EXTRACELLULAR, EC-SOD, and Cu-Zn, is an enzyme that in humans is encoded by the SOD3 gene. This gene encodes a member of the superoxide dismutase(SOD) protein family. SODs are antioxidant enzymes that catalyze the dismutation of two superoxide radicals into hydrogen peroxide and oxygen. Hendrickson et al.(1990) mapped the SOD3 gene to 4pter-q21 by a study of somatic cell hybrids. Stern et al.(2003) narrowed the assignment to 4p15.3-p15.1 by somatic cell and radiation hybrid analysis, linkage mapping, and FISH. The product of this gene is thought to protect the brain, lungs, and other tissues from oxidative stress. The protein is secreted into the extracellular space and forms a glycosylated homotetramer that is anchored to the extracellular matrix(ECM) and cell surfaces through an interaction with heparan sulfate proteoglycan and collagen. A fraction of the protein is cleaved near the C-terminus before secretion to generate circulating tetramers that do not interact with the ECM.

Images



Anti-SOD3 antibody, ABO11203, Western blotting
Lane 1: Human Placenta Tissue Lysate
Lane 2: A549 Cell Lysate
Lane 3: MM231 Cell Lysate
Lane 4: MCF-7 Cell Lysate

Anti-SOD3 antibody, ABO11203, IHC(F)IHC(F): Human



Placenta Tissue

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