

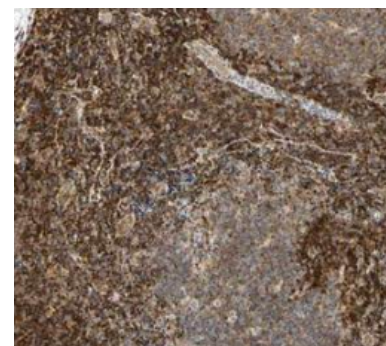
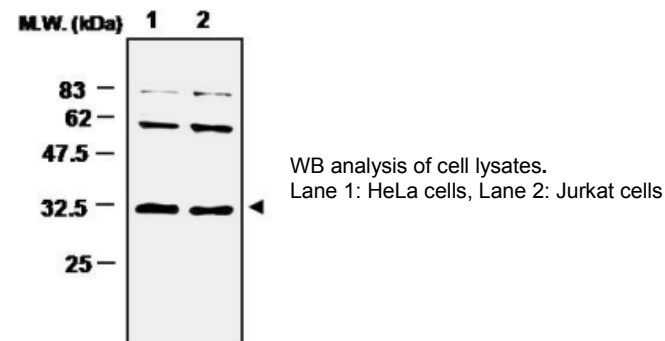
Superoxide Dismutase 4 (3A1) Monoclonal Antibody

ALTERNATE NAMES:	Superoxide dismutase, SOD4.
CATALOG #:	6171-100
AMOUNT:	100 µl
HOST:	Mouse
ISOTYPE:	IgG2a
IMMUNOGEN:	Recombinant human protein purified from E.coli
PURIFICATION:	Ammonium sulphate precipitation
FORM:	Liquid
FORMULATION:	100 µl of antibody in HEPES with 0.15 M NaCl, 0.01 % BSA, 0.03 % sodium azide, and 50 % glycerol
SPECIES REACTIVITY:	Human
STORAGE CONDITIONS:	Store for 1 year at -20°C from date of shipment. Avoid repeated freeze/thaw cycles.

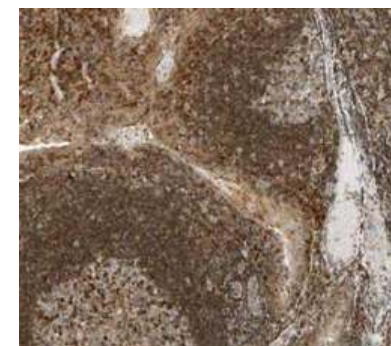
DESCRIPTION: Superoxide dismutase (SOD) is an antioxidant enzyme involved in the defense system against reactive oxygen species (ROS). SOD catalyzes the dismutation reaction of superoxide radical anion (O₂⁻) to hydrogen peroxide, which is then catalyzed to innocuous O₂ and H₂O by glutathione peroxidase and catalase. Several classes of SOD have been identified. These include intracellular copper, zinc SOD (Cu, Zn-SOD/SOD-1), mitochondrial manganese SOD (Mn-SOD/SOD-2) and extracellular Cu, Zn-SOD (EC-SOD/SOD-3). SOD1 is found in all eukaryotic species as a homodimeric 32 kDa enzyme containing one each of Cu and Zn ion per subunit. The manganese containing 80 kDa tetrameric enzyme SOD2, is located in the mitochondrial matrix in close proximity to a primary endogenous source of superoxide, the mitochondrial respiratory chain. SOD3 is a heparin-binding multimer of disulfide-linked dimers, primarily expressed in human lungs, vessel walls and airways. SOD4 is a copper chaperone for superoxide dismutase (CCS), which specifically delivers Cu to copper/zinc superoxide dismutase. CCS may activate copper/zinc superoxide dismutase through direct insertion of the Cu cofactor. SOD4 delivers copper to copper zinc superoxide dismutase (SOD1).

APPLICATION: Western blot: 1:2000, IP: 2 µl, IHC-P, ELISA.

Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.



IHC analysis of normal human lymphoid tissue. (Formalin fixed paraffin embedded)



IHC analysis of normal human tonsillar tissue (Formalin fixed paraffin embedded)

RELATED PRODUCTS:

- Superoxide Dismutase 1 (72B1) Monoclonal Antibody (**Cat. No. 6168-100**)
- Superoxide Dismutase 2 (2A1) Monoclonal Antibody (**Cat. No. 6169-100**)
- Superoxide Dismutase 3 (1H12) Monoclonal Antibody (**Cat. No. 6170-100**)
- Superoxide Dismutase (SOD) Activity Assay Kit (**Cat. No. K335-100**)
- Superoxide Dismutase, human recombinant (**Cat. No. 4802-50**)
- SOD2, human recombinant (**Cat. No. 6360-100**)
- Bacterial Recombinant SODA (**Cat. No. 6361-100**)
- SOD1 Antibody (**Cat. No. 3458-100**)
- SOD1 Blocking Peptide (**Cat. No. 3458BP-50**)
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FOR RESEARCH USE ONLY! Not to be used on humans.