Catalog No. LF-PA0021

POLYCLONAL ANTIBODY

Anti-Superoxide Dismutase II

Background : 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 (O_2-) to hydrogen peroxide, which is then catalyzed to innocuous O_2 and H_2O 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) (1). SOD-1 is found in all eukaryotic species as a homodimeric 32-kDa enzyme containing one each of Cu and Zn ion per subunit (2). 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 (3). SOD-3 is a heparin-binding multimer of disulfide-linked dimers, primarily expressed in human lungs, vessel walls and airways (4). SOD-4 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.

Immunogen : Recombinant human protein purified from *E.coli*

Host : Rabbit

Size : 100 µℓ

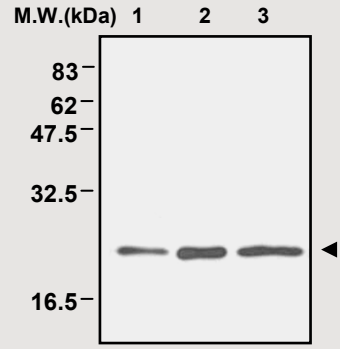
Composition : PBS coataning 50% glycerol

Positive control : HeLa cell lysates

Storage : Store for 1 year at –20°C from date of shipment

Species cross reactivity

Human	Mouse	Rat
+	+	+



IMMUNOBLOT ANALYSIS of cell lysates:
Lane 1: HeLa cell lysates Lane 2: Mouse Kidney
Lane 3: Rat Brain

Application :
Western blotting (1:2000)
Immunoprecipitation (1 µℓ /400 µℓ lysates)

Background Reference :

1) Kuninaka, S. et al. (2000) Br. J. Cancer. 83, 928-934.
2) Strange, R. W. et al. (2003) J. Mol. Biol. 328, 877-891.
3) Weisiger, R. A., and Fridovich, I. (1973) J. Biol. Chem. 248, 3582-3592.
4) Enghild, J. J. et al. (1999) Biochem J. 317, 51-57.

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