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www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 600-401-F19

SOD1 Antibody

Overview

Description:	Anti-SOD1 (RABBIT) Antibody - 600-401-F19
Item No.:	600-401-F19
Size:	100 µg
Applications:	IF, IHC, IP, WB
Reactivity:	Human, Mouse, Rat, Bovine
Host Species:	Rabbit

Product Details

Background:	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. In general, SODs play a major role in antioxidant defense mechanisms. There are two main 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 (3). 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.
Synonyms:	Superoxide dismutase1, Superoxide dismutase Cu-Zn, ALS1, IPOA, SOD1, SOD2, SODC, hSod1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Sod1
Reactivity:	Human, Mouse, Rat, Bovine
Immunogen Type:	Conjugated Peptide

Immunogen:	SOD1 Antibody was produced from whole rabbit serum prepared by repeated immunizations with a synthetic peptide corresponding to rat SOD1.
Purity/Specificity:	Anti-SOD1 Antibody was purified by affinity chromatography. A BLAST analysis was used to suggest cross-reactivity with SOD1 from Human, Rat, Mouse, and Bovine based on 100% homology with the immunizing sequence. Cross-reactivity with SOD1 from other sources has not been determined.
Relevant Links:	• NCBI - NP_058746.1 • GeneID - 24786 • UniProtKB - P07632

Application Details

Tested Applications:	IF, IHC, IP, WB
Application Note:	Anti-SOD1 Antibody is tested for use in WB, IP, IF, and IHC. Expect a band approximately ~23kDa (human) and 19kDa (other species) proteins corresponding to the molecular mass of superoxide dismutase (SOD1) on SDS PAGE immunoblots. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:200
IHC:	User Optimized
IP:	User Optimized
WB:	0.5 µg/ml

Formulation

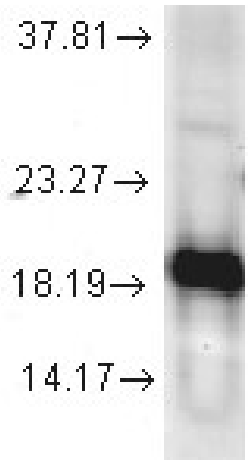
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.09% (w/v) Sodium Azide
Stabilizer:	50% (v/v) Glycerol

Shipping & Handling

Shipping Condition:	Wet Ice

Storage Condition:	Conjugated antibodies should be stored according to the product label
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western Blot of Rabbit anti-Cu/Zn SOD antibody. Lane 1: human cell line mix. Lane 2: none. Load: 35 µg per lane. Primary antibody: Cu/Zn SOD antibody at 1:1000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 15.9 kDa, ~19 kDa for Cu/Zn SOD. Other band(s): none.

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