

Datasheet for 600-401-G13**SOD2 Antibody****Overview**

Description:	Anti-SOD2 (RABBIT) Antibody - 600-401-G13
Item No.:	600-401-G13
Size:	100 µg
Applications:	IF, IHC, IP, WB
Reactivity:	Human, Mouse, Rat, Bovine, Chicken, D. melanogaster, Dog, Guinea Pig, Hamster, Monkey, Pig, Rabbit, Sheep, Xenopus
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 O_2^- to O_2 and H_2O_2 , which are then metabolized to H_2O and O_2 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:	Manganese SOD, IPO B, Mn SOD, SOD2, Superoxide dismutase [Mn], mitochondrial
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Sod2
Reactivity:	Human, Mouse, Rat, Bovine, Chicken, D. melanogaster, Dog, Guinea Pig, Hamster, Monkey, Pig, Rabbit, Sheep, Xenopus

Immunogen Type:	Recombinant Protein
Immunogen:	SOD2 Antibody was produced from whole rabbit serum prepared by repeated immunizations raised against rat SOD2.
Purity/Specificity:	Anti-SOD2 Antibody was purified by affinity chromatography. A BLAST analysis was used to suggest cross-reactivity with SOD2 from Human, Rat, Mouse, Bovine, Canine, Chicken, Drosophila, Guinea pig, Pig, Hamster, Monkey, Rabbit, Sheep, and Xenopus based on 100% homology with the immunizing sequence. Cross-reactivity with SOD2 from other sources has not been determined.
Relevant Links:	• NCBI - NP_058747.1 • GenelD - 24787 • UniProtKB - P07895

Application Details

Tested Applications:	IF, IHC, IP, WB
Application Note:	Anti-SOD2 Antibody is tested for use in WB, IP, IF, and IHC. Expect a band approximately ~25kDa protein corresponding to the molecular mass of SOD2 in WB. 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

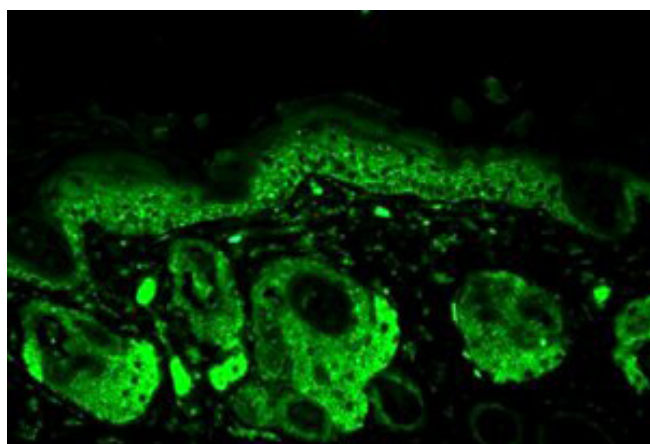
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	1X PBS, pH 7.4
Preservative:	0.09% (w/v) Sodium Azide
Stabilizer:	50% (v/v) Glycerol

Shipping & Handling

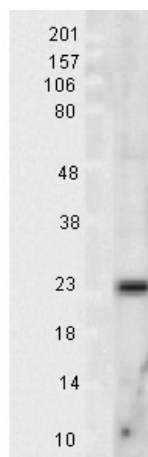
Shipping Condition:	Wet Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy

Immunofluorescence of rabbit anti-SOD2 antibody. Tissue: Bouin fixed paraffin embedded backskin sections of transgenic mice. Antigen retrieval: not required. Primary Antibody: SOD2 at 1ug/ml for 1h at RT. Secondary antibody: Anti-Rabbit secondary at 1:10,000 for 45 min at RT. Localization: Mitochondrion matrix. Staining: SOD2 as green fluorescent signal.



Western Blot

Western Blot of rabbit anti-SOD2 total antibody. Lane 1: Rat Tissue Lysate. Primary antibody: SOD2 total antibody at 1:1000 for overnight at 4°C. Secondary antibody: Goat anti-rabbit IgG HRP secondary antibody at 1:10,000 for 45 min at RT. Block: 5% Biotin overnight 4°C. Predicted/Observed size: 24.6 kDa/25kD. Other band(s): none.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.