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Datasheet for 600-401-EE2

SCO1 Antibody

Overview

Description:	Anti-SCO1 (RABBIT) Antibody - 600-401-EE2
Item No.:	600-401-EE2
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Synthesis of cytochrome c oxidase 1 was initially identified in yeast as one of two cytochrome c oxidase (COX) assembly proteins that enable the assembly of cytochrome c holoenzyme, a complex that catalyzes the transfer of reducing equivalents from cytochrome c to molecular oxygen and pumps protons across the inner mitochondrial membrane. Like their yeast homologs, the function of both SCO1 and SCO2 are dependent on copper ion binding. Mutations in either gene can lead to cytochrome c oxidase respiratory chain defects, with a missense mutation in human SCO1 (P174L) associated with a fatal neonatal hepatopathy when the second allele is also non-functional, suggesting the pathology is due to loss of function. It has been suggested that this mutation alters the SCO1 affinity for the copper (I) ion, thus impairing the efficiency of copper transfer to the cytochrome c oxidase. At least two isoforms of SCO1 are known to exist and both are recognized by the SCO1 antibody. This SCO1 antibody has no cross-reactivity to SCO2.
Synonyms:	SCO1 Antibody, SCOD1, SCOD1, Protein SCO1 homolog, mitochondrial
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	SCO1
Reactivity:	Human, Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-SCO1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 14 amino acid synthetic peptide from near the internal region of human SCO1.
Purity/Specificity:	Anti-SCO1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with SCO1 from other sources has not been determined.
Relevant Links:	• UniProtKB - O75880 • GeneID - 6341 • NCBI - O75880

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-SCO1 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 34 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:10,000
IF:	20 µg/mL
IHC:	2.5 µg/mL
WB:	.5-1 µg/mL

Formulation

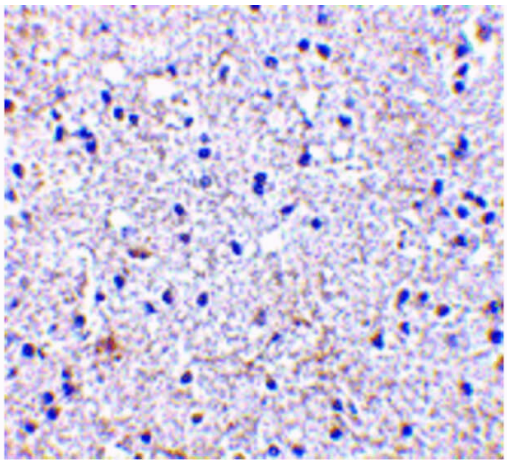
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

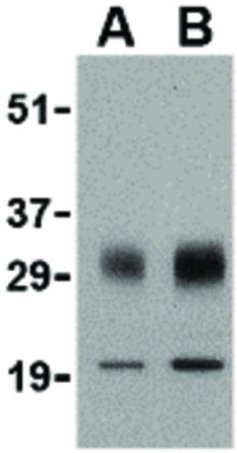
Shipping Condition:	Dry Ice

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



Immunohistochemistry
Immunohistochemistry of SCO1 antibody. Tissue: Human brain tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: SCO1 antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: SCO1 is cytoplasmic. Staining: SCO1 as precipitated red signal with hematoxylin purple nuclear counterstain.



Western Blot
Western Blot of SCO1 antibody. Lane A: Human brain tissue lysate at 0.5 µg/mL. Lane B: Human brain tissue lysate at 1 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 33.8 kDa, 33 & 21 kDa for SCO1.

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.