

Datasheet for 600-401-EU5**SPT2 Antibody****Overview**

Description:	Anti-SPT2 (RABBIT) Antibody - 600-401-EU5
Item No.:	600-401-EU5
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Serine palmitoyltransferase (SPT), which consists of two different subunits, is the key enzyme in sphingolipid biosynthesis. It converts L-serine and palmitoyl-CoA to 3-oxosphinganine with pyridoxal 5'-phosphate as a cofactor. SPT2 is the long chain base subunit 2 of mammalian serine palmitoyltransferase. SPT2 is catalytically active but needs its related protein SPT1 for its stabilization and anchoring the holoenzyme to the cytosolic face of the endoplasmic reticulum. As in the case with SPT1, mutations in the SPT2 gene can cause hereditary sensory and autonomic neuropathy type I (HSAN-I), resulting from a loss of SPT activity as well as the accumulation of the atypical and neurotoxic sphingoid metabolite 1-deoxy-sphinganine.
Synonyms:	SPT2 Antibody, LCB2, SPT2, HSN1C, LCB2A, NSAN1C, hLCB2a, KIAA0526, LCB2, Serine palmitoyltransferase 2, Long chain base biosynthesis protein 2, LCB 2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	SPTLC2
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-SPT2 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 15 amino acid synthetic peptide near the C-terminus of human SPT2.

Purity/Specificity: Anti-SPT2 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. At least three isoforms of SPT2 are known to exist; this antibody will not detect isoform b. SPT2 antibody is predicted to not cross-react with SPT1.

Relevant Links:

- [UniProtKB - O15270](#)
- [GeneID - 9517](#)
- [NCBI - NP_004854.1](#)

Application Details

Tested Applications: ELISA, IF, IHC, WB

Application Note: Anti-SPT2 Antibody has been tested for use in ELISA, Western Blotting, Immunocytochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 63 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: 1:10,000

IF: 20 µg/mL

WB: 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

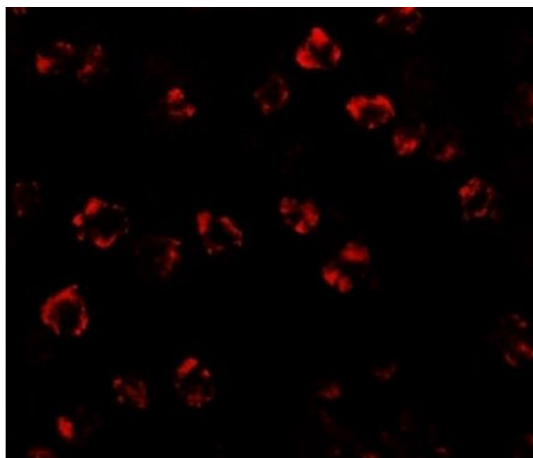
Shipping & Handling

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



Immunofluorescence Microscopy

Immunofluorescence Validation of SPT2.

Cell: Mouse 3T3 Cells.

Fixation: 4% paraformaldehyde-fixed.

Labeling: SPT2 at 20 $\mu\text{g/mL}$, followed by goat anti-rabbit IgG secondary antibody at 1:500 dilution (red).



Immunocytochemistry

Immunocytochemistry Validation of SPT2.

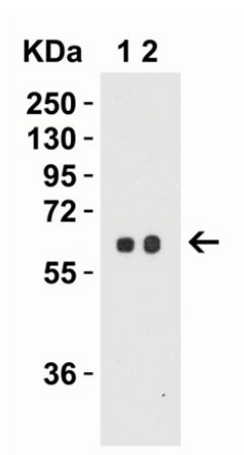
Cell: Mouse 3T3 Cells.

Fixation: formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-SPT2 antibody at 10 $\mu\text{g/mL}$ overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



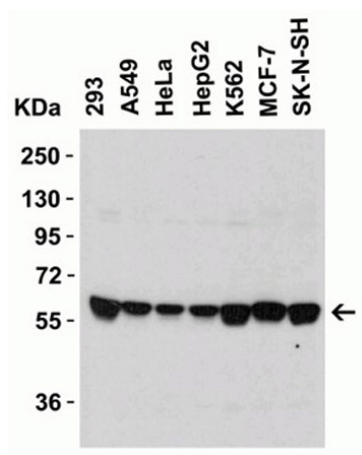
Western Blot

Western Blot Validation of SPT2.

Load: 15 μg of Mouse 3T3/NIH lysate per lane.

Primary antibody: SPT2 at (Lane 1: 0.5 $\mu\text{g/mL}$ and Lane 2: 1 $\mu\text{g/mL}$) for 1h incubation at RT in 5% NFDM/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



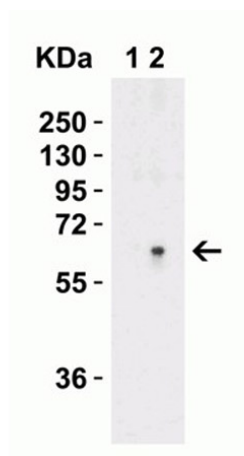
Western Blot

Western Blot Validation of SPT2.

Load: 15 µg of human lysates per lane. Lane 1: 293, Lane 2: A549, Lane 3: HeLa, Lane 4: HepG2, Lane 5: K562, Lane 6: MCF7, Lane 7: SK-N-SH.

Primary antibody: SPT2 at 1 µg/mL for 1h incubation at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot

Western Blot Validation of SPT2.

Load: 15 µg of human brain tissue lysate per lane.

Primary antibody: SPT2 at (Lane 1: 0.5 µg/mL and Lane 2: 1 µg/mL) for 1h incubation at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

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.