Datasheet for 600-401-MN5

LC3B Antibody

Overview

Description:	Anti-LC3B (RABBIT) Antibody - 600-401-MN5
Item No.:	600-401-MN5
Size:	100 µg
Applications:	ELISA, FC, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	MAP1LC3B (Microtubule Associated Protein 1 Light Chain 3 Beta) is a subunit of neuronal microtubule-associated MAP1A and MAP1B proteins, which are involved in microtubule assembly and important for neurogenesis. It is a ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes). LC3B plays a role in mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production. Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation. Promotes primary ciliogenesis by removing OFD1 from centriolar satellites via the autophagic pathway. Anti-LC3B Antibody is useful for researchers interested in spastic paraparesis, neuroendocrine system, neuroscience research, cancer research and apoptosis research.
Synonyms:	Rabbit Anti-Microtubule Associated Protein 1 Light Chain 3 Beta Antibody, Rabbit Anti-LC3B Antibody, Microtubule-Associated Proteins 1A/1B Light Chain 3B, Autophagy-Related Ubiquitin-Like Modifier LC3 B, MAP1 Light Chain 3-Like Protein 2, MAP1A/MAP1B Light Chain 3 B, MAP1A/MAP1B LC3 B, Microtubule-Associated Protein 1 Light Chain 3 Beta, Autophagy-Related Protein LC3 B, MAP1A/1BLC3, MAP1LC3B-A, MAP1ALC3, ATG8F, LC3B
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	MAP1LC3B

Reactivity:	Human
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-LC3B antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal portion of human Microtubule-associated proteins 1A/1B light chain 3B conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This affinity purified antibody is directed against human LC3B. This product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with the antigen based on 100% homology with the immunizing sequence.
Relevant Links:	• UniProtKB - Q9GZQ8 • NCBI - NP_073729.1 • GeneID - 81631

Application Details

Tested Applications:	ELISA, FC, IHC, WB
Application Note:	Anti-LC3B Antibody has been tested in ELISA, Western Blot, Immunohistochemistry, and Flow Cytometry. Positive control used U251-MG Cells in Flow and Human lymph node in IHC. Testing only recommended in WB when using recombinant or overexpressing systems. Expect a band at ~14.6 kDa in western blot using appropriate lysates or tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
FC:	1:25
IHC:	1:100
WB:	1:1000

Formulation

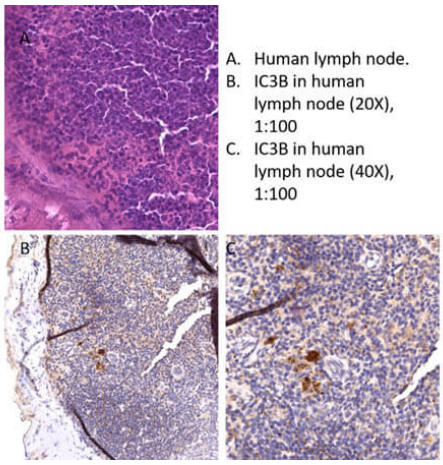
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

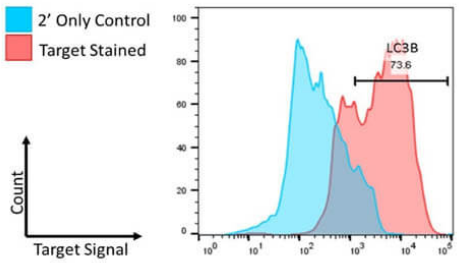
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several 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

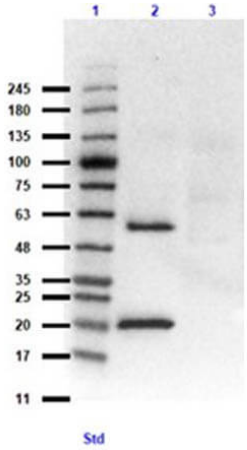


A. Human lymph node.
B. IC3B in human lymph node (20X), 1:100
C. IC3B in human lymph node (40X), 1:100

Immunohistochemistry
Immunohistochemistry of Rabbit Anti-LC3B Antibody. Tissue: human lymph node. Fixative: none. Antigen Retrieval: HIER using Cirate Buffer for 20 minutes. Primary Antibody: Anti-LC3B antibody at 1:100 at RT for 30 minutes. Secondary Antibody: Anti-Rabbit Poly-HRP IgG. Ready-to-Use at RT for 8 minutes. Counterstain: Hematoxylin. Substrate: DAB. Results: This antibody showed staining throughout most of the lymph node with focal strong staining. Focal cell staining strongly in the lymph node is the pattern expected.



Flow Cytometry
Flow Cytometry of Rabbit Anti-LC3B Antibody. Cells: U251-MG cells. Primary Antibody: Anti-LC3B at 2.5µg/mL in 100µL FACS buffer for 30 minutes at RT. Secondary Antibody: Donkey anti-Rabbit IgG DyLight™488 (p/n 611-741-127) at 2.5µg/mL in 100µL FACS buffer for 30 minutes at RT. Buffer: FACS/IF buffer (p/n MB-086-0500). Analysis: Distinct positive shifts in fluorescence have been observed in all samples tested following permeabilization of the cell sample. This is indicative of specificity and affinity of each antibody toward its target.



Western Blot

Western Blot of Rabbit Anti-LC3B Antibody. Lane 1: Opal Prestained Molecular Weight Ladder (p/n MB-210-0500). Lane 2: MAP1LC3B overexpressing HEK293 (10µg) [+]. Lane 3: HEK293T lysate (p/n W09-001-GX5) (10 µg) [-]. Primary Antibody: Anti-LC3B Antibody at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat anti-Rabbit IgG HRP (p/n 611-103-122) at 1:70,000 for 30 minutes. Block: BlockOut Buffer (p/n MB-073). Exposure: 15 sec. Predicted MW: ~14.6, ~63kDa for overexpressing lysates. Observed MW: ~20, 60kDa.

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.