

# Product Datasheet

## LC3 Antibody Pack NB910-40752-1Pack

Unit Size: 1 Pack

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NB910-40752-1Pack**

## LC3 Antibody Pack

Product Information	
<b>Unit Size</b>	1 Pack
<b>Concentration</b>	Concentration of individual antibodies may be found on the vial label. If unlisted please contact technical services.
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Product Description	
<b>Description</b>	This pack contains 1 vial each of: NB100-2220 (0.1 mL), NB100-2331 (0.1 mL) and NB600-1384 (0.1 mL).
<b>Gene ID</b>	81631
<b>Gene Symbol</b>	MAP1LC3B
<b>Species</b>	Human, Mouse, Rat, Porcine, Bacteria, Bovine, Canine, Primate, Zebrafish
<b>Reactivity Notes</b>	Antibodies in this pack are validated for use in the following species: NB600-1384: Bacteria, Bovine, Canine, Human, Mouse, Porcine, Primate, Rat, Yeast, Zebrafish NB100-2331: Amphibian, Canine, Fish, Human, Mouse, Plant, Rat, Zebrafish NB100-2220: Alligator, Avian, Bacteria, Bovine, Canine, Chicken, Chinese Hamster, Golden Syrian Hamster, Guinea Pig, Hamster, Human, Invertebrate, Monkey, Mouse, Porcine, Primate, Rabbit, Rat, Zebrafish
<b>Immunogen</b>	For NB600-1384: Polyclonal LC3B Antibody was made to a synthetic peptide made to the N-terminal region of the human LC3B protein [Uniprot: Q9GZQ8]. For NB100-2331: A synthetic peptide made to an internal portion of the human LC3 protein sequence (between residues 25-121) [Uniprot: Q9H492]. For NB100-2220: Polyclonal LC3B Antibody was made to a synthetic peptide made to an N-terminal portion of the human LC3B protein sequence (between residues 1-100) [UniProt# Q9GZQ8].
<b>Kit Components</b>	NB600-1384: LC3B Antibody - BSA Free, NB100-2331: LC3A Antibody - BSA Free, NB100-2220: LC3B Antibody - BSA Free
Product Application Details	
<b>Applications</b>	Western Blot, Simple Western, ELISA, Flow Cytometry, Immunoblotting, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP), Knockdown Validated, Knockout Validated
<b>Recommended Dilutions</b>	Western Blot, Simple Western, Flow Cytometry, ELISA, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen, Immunoblotting, Chromatin Immunoprecipitation (ChIP), Knockout Validated, Knockdown Validated

**Application Notes**

Antibodies in this pack are validated for the following applications:

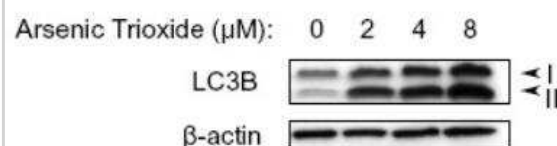
NB600-1384: Electron Microscopy, Flow Cytometry, Immunoblotting, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry Free-Floating, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated, Knockout Validated, Simple Western, Western Blot

NB100-2331: Chromatin Immunoprecipitation, ELISA, Flow Cytometry, Immunoblotting, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry Whole-Mount, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Simple Western, Southern Blot, Western Blot

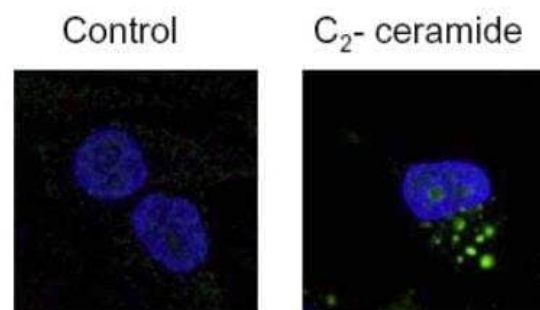
NB100-2220: Chromatin Immunoprecipitation (ChIP), ELISA, Flow Cytometry, Immunoblotting, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated, Knockout Validated, Proximity Ligation Assay, SDS-Page, Simple Western, Western Blot

**Images**

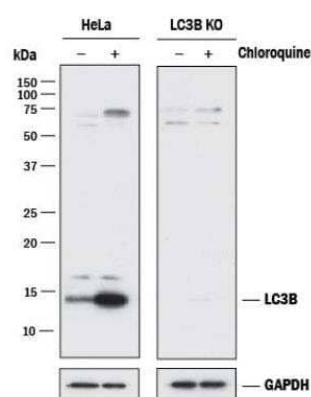
Western Blot: LC3 Antibody Pack [NB910-40752] - LC3/MAP1LC3A Antibody Pack [NB910-40752] - Detection of LC3B in treated U87-MG (human glioblastoma astrocytoma) lysates using NB600-1384.



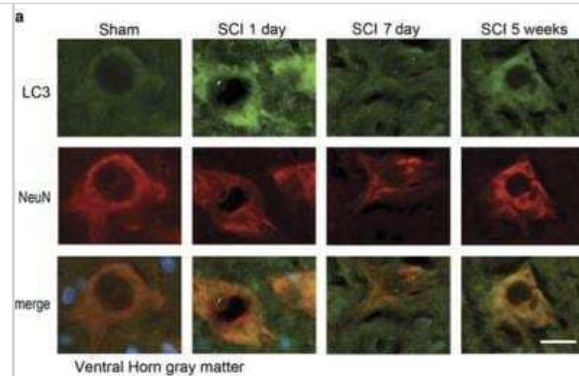
Immunocytochemistry/Immunofluorescence: LC3 Antibody Pack [NB910-40752] - LC3/MAP1LC3A Antibody Pack [NB910-40752] - Immunofluorescent staining of treated U373-MG cells using NB600-1384. The nuclei were stained with DAPI.



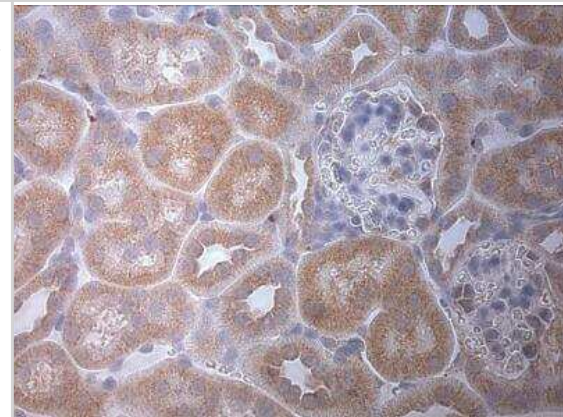
Knockout Validated: LC3 Antibody Pack [NB910-40752] - Lysates of HeLa parental cell line and LC3B knockout HeLa cell line (KO) untreated (-) or treated (+) with 50  $\mu$ M Chloroquine for 18 hours. PVDF (Polyvinylidene difluoride) membrane was probed with 0.5  $\mu$ g/mL of Rabbit Anti-LC3B Polyclonal Antibody (Catalog # NB100-2220) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog# HAF008). A specific band was detected for LC3B at a molecular weight of approximately 15 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the knockout HeLa cell line. GAPDH is shown as a loading control. This experiment was conducted under reducing conditions. LC3B Antibody [NB100-2220]



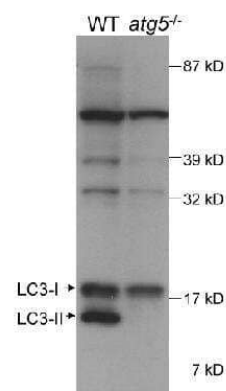
Immunohistochemistry: LC3 Antibody Pack [NB910-40752] - Autophagosomes accumulate in neurons of the VH gray matter at day 1 after SCI. Representative images of IHC staining for LC3 (green) and neuronal marker NeuN (red) in VH of gray matter from sham and SCI animals. Stronger co-localization between NeuN and LC3 is apparent at day 1 after SCI. Scale bar is 20  $\mu$ m. Image collected and cropped by CiteAb from the following publication ([//www.nature.com/articles/cddis2014527](http://www.nature.com/articles/cddis2014527)) licensed under a CC-BY license. LC3B Antibody [NB100-2220]



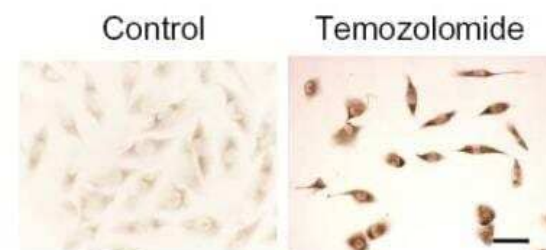
Immunohistochemistry: LC3 Antibody Pack [NB910-40752] - Analysis in mouse renal tissue. Image from verified customer review. LC3A Antibody [NB100-2331]



Western Blot: LC3/MAP1LC3A Antibody Pack [NB910-40752] - Detection of autophagic LC3 in mouse ES cell lysate using NB 100-2331. The *atg5*<sup>-/-</sup> lane (ES cells, cultured to form embryonic bodies, that are deficient in conversion of LC3-1 to LC3-11) demonstrates the specificity of NB 100-2331, as there is no detection of LC3-11. Photo courtesy of Dr. Beth Levine, UT Southwestern Medical Center.



Immunohistochemistry: LC3/MAP1LC3A Antibody Pack [NB910-40752] - Staining of treated U373-MG (human glioblastoma) cells using NB600-1384.



## Publications

Elizabeth R. M. Zunica, Elizabeth C. Heintz, Wagner S. Dantas, R. Caitlin Hebert, MaKayla Tanksley, Robbie A. Beyl, Edward C. Mader, John P. Kirwan, Christopher L. Axelrod, Prachi Singh Effects of metformin on glucose metabolism and mitochondrial function in patients with obstructive sleep apnea: A pilot randomized trial *Physiological Reports* 2024-02-12 [PMID: 38346816]

Chao A, Lin CY, Chao AN, Tsai CL et al. Lysine-specific demethylase 1 (LSD1) destabilizes p62 and inhibits autophagy in gynecologic malignancies *Oncotarget* 2017-09-26 [PMID: 29088798] (WB, ICC/IF, Human)

Kowalewski B, Heimann P, Ortkras T et al. Ataxia is the major neuropathological finding in arylsulfatase G-deficient mice: similarities and dissimilarities to Sanfilippo disease (mucopolysaccharidosis type III). *Hum. Mol. Genet.* 2014-12-01 [PMID: 25452429] (WB, Mouse)

### Details:

LC3 antibody used for WB on detergent-soluble fractions of the cerebellum from 12- and 24-month-old arylsulfatase G/Arsg KO mice, a model resembling Sanfilippo syndrome animal models (Figure 6)

Settembre, C et al. A block of autophagy in lysosomal storage disorders. *Hum Mol Genet*;17(1):119-29. 2008-01-01 [PMID: 17913701]





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### **Products Related to NB910-40752-1Pack**

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NBP3-21266PEP	LC3 Recombinant Protein Antigen
H00008878-M01	p62/SQSTM1 Antibody (2C11)
NBP3-21266-100ul	LC3 Antibody
AF835	Caspase-3 Antibody [Unconjugated] - Active

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Antibody Packs are guaranteed for 1 year from date of receipt.

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