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Product datasheet for TA301541

LC3B (MAP1LC3B) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ChIP, ELISA, FC, ICC/IF, IHC, Immunoblotting, IP, SDS-PAGE, Simple Western, WB
Recommended Dilution:	Immunocytochemistry/ Immunofluorescence: 1:200, Immunohistochemistry-Frozen, Simple Western: 1:50, Flow Cytometry, Proximity Ligation Assay, Knockdown Validated, SDS-Page, ELISA, Immunoprecipitation: 20 ug/500 ug of protein, Immunohistochemistry: 1:200 - 1:400, Immunohistochemistry-Paraffin: 1:200 - 1:400, Western Blot: 0.5 - 2.0 ug/mL, Chromatin Immunoprecipitation (ChIP), Immunoblotting, Knockout Validated
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to an N-terminal portion of the human LC3 protein sequence (between residues 1-100).
Formulation:	PBS, 30% Glycerol and 0.1% sodium azide
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	microtubule associated protein 1 light chain 3 beta
Database Link:	NP_073729 Entrez Gene 67443 MouseEntrez Gene 81631 Human Q9GZQ8

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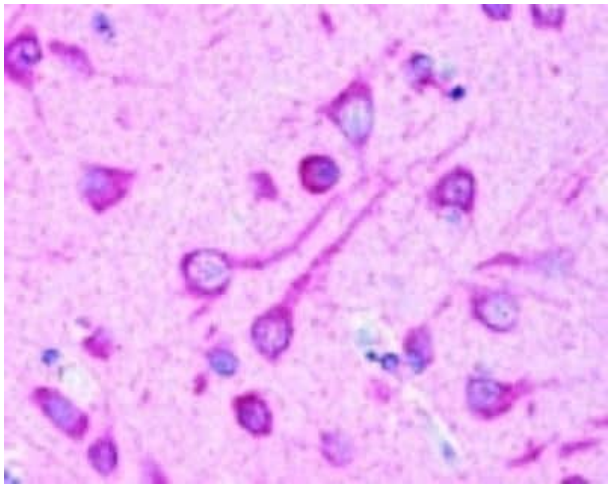
Background: LC3, a mammalian homologue of Apg8, was originally identified as microtubule-associated protein 1 light chain 3. It is a component of both the MAP1A and MAP1B microtubule-binding domains and the heavy-chain independent regulation of LC3 expression might modify MAP1 microtubule-binding activity during development. However, LC3 is now thought to also be involved in autophagy. LC3-I is cytosolic and LC3-II is membrane bound and enriched in the autophagic vacuole fraction. LC3-II is the first mammalian protein identified that specifically associates with the autophagosome membranes.

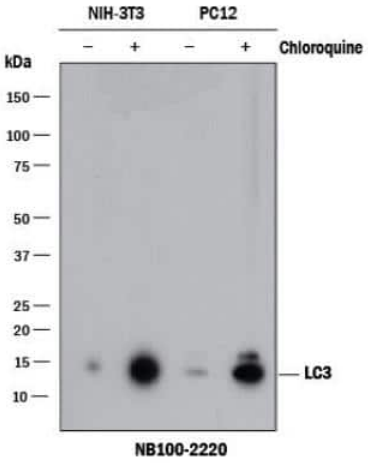
Synonyms: 1BLC3; ATG8F; LC3B; MAP1A; MAP1LC3B-a

Product images:

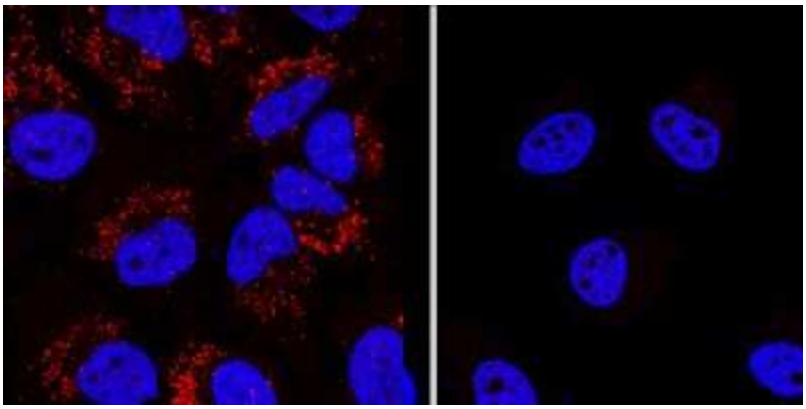


Analysis using the Biotin conjugate of Rabbit anti-LC3B Antibody [Catalog # TA301541. Staining of brain, cerebral cortex, neurons with cell processes.

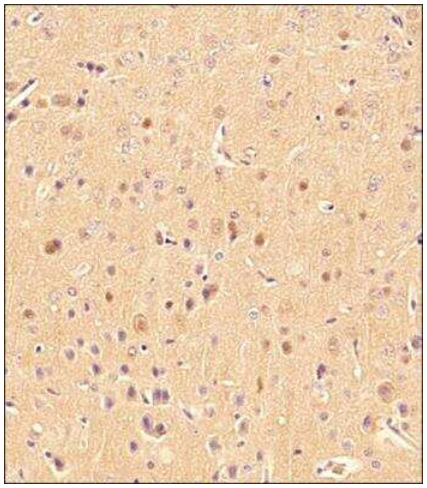
Image shows a specific band for LC3B at a molecular weight of approximately 15 kDa in 0.5 mg/mL of Neuro2A lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



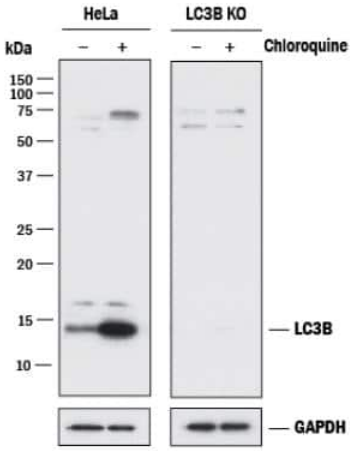
Lysates of mouse NIH3T3 and rat PC-12 cell lines untreated (-) or treated (+) with CQ. PVDF (Polyvinylidene difluoride) membrane was probed with 0.5 ug/mL rabbit anti-LC3B polyclonal Antibody (Catalog # TA301541, Novus Biologicals), followed by 1:2000 dilution of goat anti-rabbit IgG secondary antibody. LC3 detected at a molecular weight of approximately 15 kDa in treated NIH3T3 and PC-12 cells.



LC3B was detected in immersion fixed CQ treated HeLa cells (left) but was not detected in LC3B knockout HeLa cells (right) using rabbit anti-human LC3B polyclonal antibody (Catalog #TA301541) at 0.3 ug/mL for 3 hours at room temperature. Cells were stained using the NorthernLights(TM) 557-conjugated anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm.



FFPE (Formalin-Fixed Paraffin-Embedded) tissue section of mouse brain using 1:200 dilution of Rabbit anti-LC3B antibody [Catalog # TA301541. The specific signal of LC3 was detected using HRP-conjugated secondary antibody with DAB (3, 3 -diaminobenzidine) reagent, and nuclei of cells were counterstained using hematoxylin. This LC3B antibody generated a low to moderate levels of cytoplasmic staining in the glial cells. The neurons depicted a moderate to strong staining for LC3 in their cytoplasm.



Lysates of HeLa parental cell line and LC3B knockout HeLa cell line (KO) untreated (-) or treated (+) with 50 uM CQ for 18 hours. PVDF (Polyvinylidene difluoride) membrane was probed with 0.5 ug/mL of Rabbit Anti-LC3B Polyclonal Antibody (Catalog # TA301541) 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.