OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA301542

MAP1LC3A Rabbit Polyclonal Antibody

Product data:

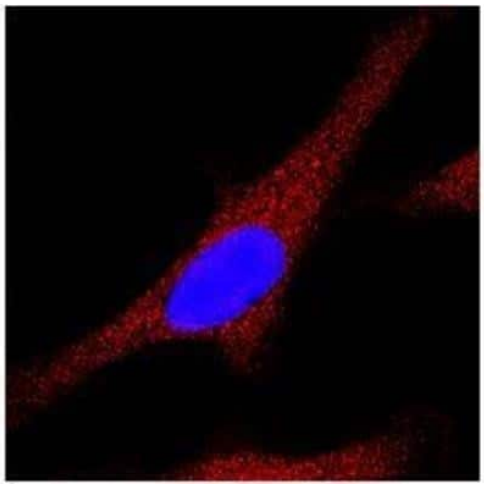
Product Type:	Primary Antibodies
Applications:	ChIP, ELISA, FC, ICC/IF, IHC, Immunoblotting, IP, Simple Western, WB
Recommended Dilution:	Chromatin Immunoprecipitation (ChIP), Immunoprecipitation: 20 ug / 500 ug of lysate, Immunohistochemistry: 1:200-1:400, Simple Western: 1:50, Chromatin Immunoprecipitation, Immunocytochemistry/ Immunofluorescence: 1:100-1:300, Immunohistochemistry-Paraffin: 1:200-1:400, Flow Cytometry, ELISA, Immunohistochemistry Whole-Mount, Immunoblotting, Immunohistochemistry-Frozen, Southern Blot, Western Blot: 2.0 ug/ml
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to an internal portion of the human LC3 protein sequence (between residues 25-121).
Formulation:	PBS, 0.02% Sodium Azide
Purification:	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 alpha
Database Link:	NP_073729 Entrez Gene 64862 RatEntrez Gene 67443 MouseEntrez Gene 84557 Human Q9H492

View online »

Background: Autophagy is a process of intracellular bulk degradation in which cytoplasmic components, including organelles, are sequestered within double-membrane vesicles that deliver the contents to the lysosome/vacuole for degradation. During macroautophagy, the sequestering vesicles, termed autophagosomes, fuse with the lysosome or vacuole resulting in the delivery of an inner vesicle (autophagic body) into the lumen of the degradative compartment. There are 16 proteins participating in the autophagy pathway in human. The autophagy protein LC3, a mammalian homologue of Atg8, 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. LC3 is the only known mammalian protein identified that stably associates with the autophagosome membranes. LC3-I is cytosolic and LC3-II is membrane bound and enriched in the autophagic vacuole fraction. The detection of LC3-I to LC3-II conversion is a useful and sensitive marker for distinguishing autophagy in mammalian cells.

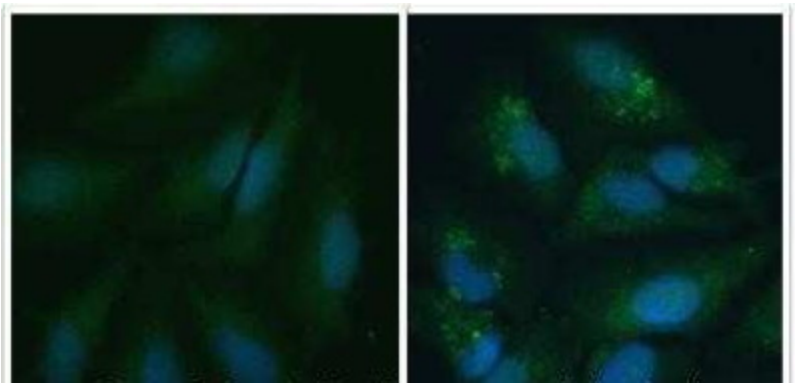
Synonyms: 1BLC3; ATG8F; LC3B; MAP1A; MAP1LC3B-a

Product images:

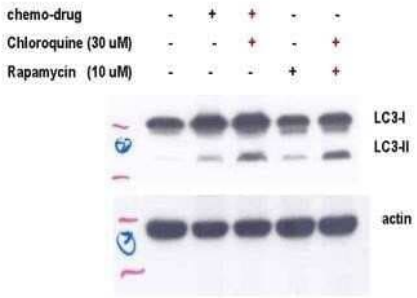


Immunocytochemistry/Immunofluorescence: LC3A Antibody - BSA Free TA301542 - LC3A Antibody TA301542 - This LC3A antibody Image shows an analysis in HeLa cells using anti-LC3 antibody (red). Nuclei were counterstained with DAPI (blue).

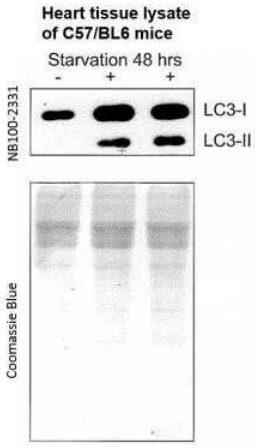
Simple Western: LC3A Antibody - BSA Free TA301542 - LC3A Antibody TA301542 - Image shows a specific band for LC3 in 0.5 mg/mL of Neuro2A lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Immunocytochemistry/Immunofluorescence: LC3A Antibody - BSA Free TA301542 - LC3A Antibody TA301542 - Left panel shows untreated HeLa cells. Right panel shows HeLa cells that were treated with 50 uM CQ overnight. Cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton X-100. The cells were incubated with anti-LC3A antibody at 5 ug/mL overnight at 4C and detected with an anti-mouse DyLight 488 (Green) at a 1:500. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Western Blot: LC3A Antibody - BSA Free TA301542 - LC3A Antibody TA301542 - This LC3A antibody Image shows Analysis in human cell lysates.



Western Blot: LC3A Antibody - BSA Free
TA301542 - LC3A Antibody TA301542 - This LC3A antibody Image shows analysis of heart tissue lysates from mice which were subjected or not to 48 hours of starvation. The signal was developed using ECL method and this LC3 antibody was found to detect both forms of LC3, i.e. LC3A and LC3B. As expected, the levels of LC3B form were higher in the heart tissue lysates from starved mice.