For research use only

LC3 (APG8A) (Isoform A specific) Antibody

NATE NAMES: MAP1LC3A; Microtubule-associated proteins 1A/1B light chain 3A; Autophagy-related protein LC3 A; Autophagy-related ubiquitin-like modifier LC3 A; MAP1 light chain 3-like protein 1; MAP1A/MAP1B light chain 3 A; Microtubule-associated protein 1 light chain 3 alpha

CATALOG #: 3235-100

AMOUNT: 100 µl

HOST (ISOTYPE): Rabbit Ig

IMMUNOGEN: This antibody is generated from rabbits immunized with full-length recombinant human LC3 (APG8a).

INTERNAL ID: DM-16

PURIFICATION: This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

MOLECULAR WEIGHT: ~14.3 kDa

FORM: Liquid

FORMULATION: Supplied in PBS with 0.09% (W/V) sodium azide.

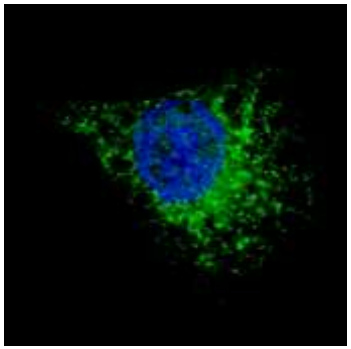
SPECIES REACTIVITY: Human

STORAGE CONDITIONS: Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

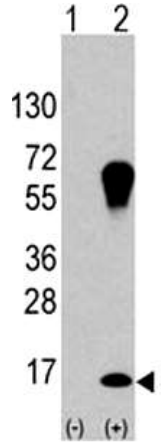
BACKGROUND DESCRIPTION: Autophagy is an alternative process of proteasomal degradation for some long-lived proteins or organelles. Alterations in the autophagic-lysosomal compartment have been linked to neuronal death in many neurodegenerative disorders as well as in transmissible neuronal pathologies (prion diseases). Genetic studies in yeast have shown that Autophagy-defective Gene-8 (Atg-8) represents a specific marker for autophagy. Among the four families of mammalian Atg8-related proteins only LC3 (Microtubule-associated Protein1 Light Chain 3) is expressed at sufficient high levels and efficiently recruited to autophagic vesicles in cells and tissues. During autophagy the cytoplasmic form, LC3-I is processed and recruited to autophagosomes, where LC3-II is generated by site specific proteolysis near to the C-terminus. Autophagic vacuoles have been also reported frequently in cardiomyopathies or muscle cells exposed to different experimental settings.

APPLICATIONS: Western blot: 1:1000, IF: 1:200.

Note: This information is only intended as a guide. The optimal dilutions must be



Fluorescent image of U251 cells stained with LC3 (APG8A) antibody.U251 cells were treated with Chloroquine (50 µM,16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with LC3 (APG8A) primary antibody (1:200, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). LC3 immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.



Western blot analysis of LC3 (APG8a) (arrow) using purified Pab. 293 cell lysates (2 µg/lane) either nontransfected (Lane 1) or transiently transfected with the LC3 (APG8a) gene (Lane 2) (Origene Technologies).

RELATED PRODUCTS:

- LC3 (APG8) Antibody (Clone 166AT1234) **(Cat # 3233-100)**
- LC3 (APG8B) (NT) Antibody **(Cat # 6946-100)**
- LC3A cleaved Antibody **(Cat # 6947-100)**
- LC3 (APG8A) (NT) Antibody **(Cat # 6948-100)**
- LC3B cleaved (NT) Antibody **(Cat # 6949-100)**
- LC3 (APG8C) Antibody **(Cat # 6950-100)**
- Phospho-LC3C(S12) Antibody **(Cat # 6951-100)**

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