LC3B (Cleaved) Antibody

ALTERNATE NAMES: MAP1LC3B; MAP1ALC3; Microtubule-associated proteins 1A/1B light chain 3B; Autophagy-related protein LC3 B; Autophagy-related ubiquitin-like modifier LC3 B; MAP1 light chain 3-like protein 2; MAP1A/MAP1B light chain 3 B; Microtubule-associated protein 1 light chain 3 beta

CATALOG #: 6949-100

AMOUNT: 100 µl

HOST/ISOTYPE: Rabbit Ig

IMMUNOGEN: This Cleaved LC3B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 89-122 amino acids from human Cleaved LC3B.

INTERNAL ID: DM-20

MOLECULAR WEIGHT: ~14.3 kDa

FORM: Liquid

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

PURIFICATION: This antibody is purified through a protein A column, followed by peptide affinity purification.

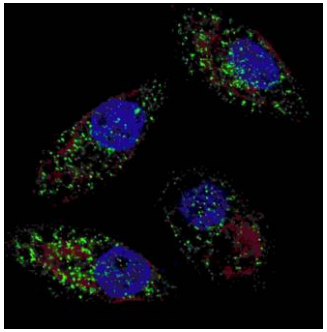
SPECIES REACTIVITY: Human, Mouse. Predicted cross reactivity with bovine samples.

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.

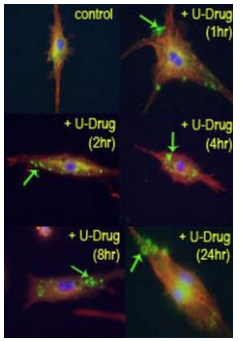
DESCRIPTION: Autophagy is an alternative process of proteasomal degradation for some long-lived proteins or organelles. Alterations in the autophagic-lysosomal compartment have been linked to neuronal death in many neurodegenerative disorders as well as in transmissible neuronal pathologies (prion diseases). 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.

APPLICATION: IF: 1:10-50, ICC: 1:10-50.

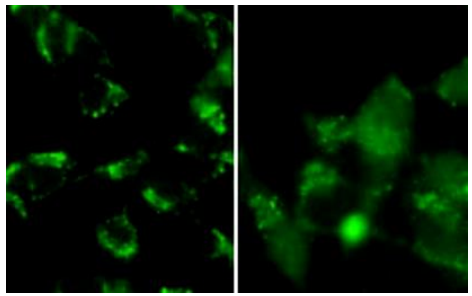
Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.



Fluorescent image of U251 cells stained with cleaved LC3B 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 cleaved LC3B primary antibody (1:100, 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.



Time course study of mouse leukaemic monocyte macrophage cells treated with U18666A, a drug that causes cholesterol and lipid storage in cells, thereby blocking fusion between late endosomes and lysosomes. Cleaved-LC3 (APG8b) antibody detected punctuates staining indicative of autophagic vacuole or phagosome structures. Data courtesy of Dr. Barry Boland, Department of Pharmacology, Oxford University.



SY5Y cells were pretreated with 5nM bafilomycin for 24hr and fixed in methanol (left panel) or 4% of paraformaldehyde (right panel). Treatment with LC3B antibody at dilution 1:100. Data courtesy of Jianhui Zhu, MD, PhD & Charleen T. Chu, MD, PhD, University of Pittsburgh School of Medicine.

RELATED PRODUCTS:

- LC3 (APG8) Antibody (Clone 166AT1234) **(Cat # 3233-100)**
- LC3 (APG8A) Antibody **(Cat # 3235-100)**
- LC3 (APG8B) (NT) Antibody **(Cat # 6946-100)**
- LC3A cleaved Antibody **(Cat # 6947-100)**
- LC3 (APG8A) (NT) Antibody **(Cat # 6948-100)**
- LC3 (APG8C) Antibody **(Cat # 6950-100)**
- Phospho-LC3C(S12) Antibody **(Cat # 6951-100)**