

Phospho-LC3C(S12) Antibody

ALTERNATE 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; Microtubule-associated protein 1 light chain 3 alpha

CATALOG #: 6951-100

AMOUNT: 100 µl

HOST/ISOTYPE: Rabbit Ig

IMMUNOGEN: This LC3C Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S12 of human LC3C.

INTERNAL ID: DM-22

MOLECULAR WEIGHT: ~14.00 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.

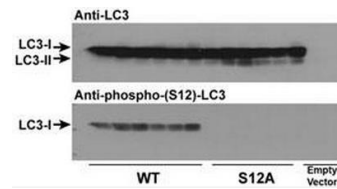
SPECIES REACTIVITY: Human. Predicted cross reactivity with bovine, mouse and rat samples.

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.

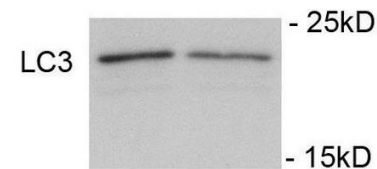
DESCRIPTION: Autophagy is an alternative process of proteasomal degradation for some long-lived proteins or organelles. Alterations in the autophagic-lysosomal compartment have been linked to neuronal death in many neurodegenerative disorders as well as in transmissible neuronal pathologies (prion diseases). 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: WB: ~1:1000, DB: 1:500.

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



Immunoblots of phosphorylated LC3 (phospho-LC3) in CHO cell culture. LC3 and LC3 S12A mutant vectors were transfected into CHO cells. The cell lysates were separated with SDS-PAGE and blotted with anti-phospho-LC3 S12 antibody. LC3 = microtubule-associated protein light chain-3; S12A = replacement of the amino acid position 12 serine of LC3 with alanine. WT = wildtype LC3-transfected cell lysates; S12A = LC3 S12A mutant-transfected cell lysates; Empty vector = vector with no LC3 gene. Molecular size: LC3-I = 16kDa, and LC3-II = 14 kDa



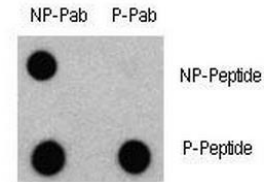
Immunoblots of SH-SY5Y cells treated with rapamycin for 1 h was probed with LC3 antibody. The data shows that treatment with rapamycin showed no significant change in level of LC3.

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)
- LC3B cleaved (NT) Antibody (Cat # 6949-100)
- LC3 (APG8C) Antibody (Cat # 6950-100)

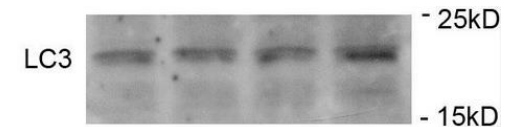
FOR RESEARCH USE ONLY! Not to be used on humans.

For research use only



Dot Blot

Dot blot analysis of Phospho-LC3 (APG8a) - S12 Antibody and Nonphospho-LC3 (APG8a) Antibody on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5 µg per ml.



Immunoblots of SH-SY5Y cells treated with MPP+ for 24h was probed with LC3 antibody. The data shows that treatment with MPP+ showed no significant change in level of LC3.