

Rabbit Phospho-LC3C (S12) Polyclonal Antibody | anti-MAP1LC3A antibody

Phospho-LC3C (S12) Antibody

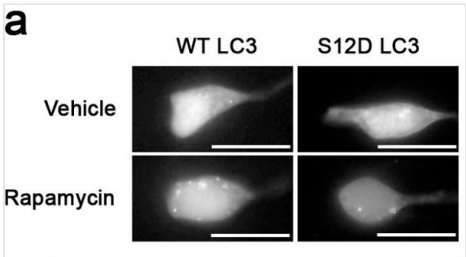
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA285518	Rabbit	Human Predicted Reactivity: Zebrafish, Bovine, Mouse, Rat	ELISA, Dot Blot, Western Blot

PRODUCT SYNONYMS

Phospho-LC3C (S12); Polyclonal Antibody; Phospho-LC3C (S12) Antibody; 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; MAP1A/MAP1B LC3 A; Microtubule-associated protein 1 light chain 3 alpha; MAP1LC3A; anti-MAP1LC3A antibody

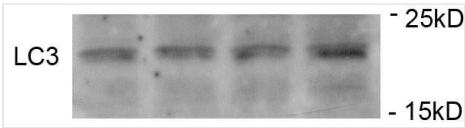
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human Predicted Reactivity: Zebrafish, Bovine, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This LC3C Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S12 of human LC3C.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Sequence Length	125
Applicable Applications for anti-MAP1LC3A antibody	ELISA, DB (Dot Blot), WB (Western Blot)
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Cellular Location	Cytoplasm, cytoskeleton. Endomembrane system; Lipid-anchor. Cytoplasmic vesicle, autophagosome membrane; Lipid- anchor. Cytoplasmic vesicle, autophagosome. Note=LC3-II binds to the autophagic membranes
Tissue Location	Most abundant in heart, brain, liver, skeletal muscle and testis but absent in thymus and peripheral blood leukocytes
Function	Ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes) (PubMed:20713600, PubMed:24290141). While LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation (PubMed:20713600). Through its interaction with the reticulophagy receptor TEX264, participates in the remodeling of subdomains of the endoplasmic reticulum into autophagosomes upon nutrient stress, which then fuse with lysosomes for endoplasmic reticulum turnover (PubMed:31006538, PubMed:31006537).
Preparation and Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.



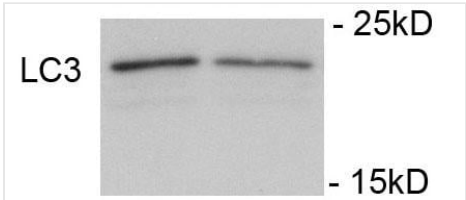
WB (Western Blot)

Something like SH-SY5Y cells expressing GFP-LC3-WT or-S12D treated with rapamycin or vehicle for 1h.



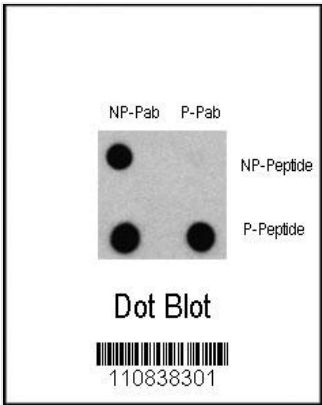
WB (Western Blot)

Immunoblots of SH-SY5Y cells treated with MPP+ for 24h was probed with AAA285518. The data shows that treatment with MPP+ showed no significant change in level of LC3.



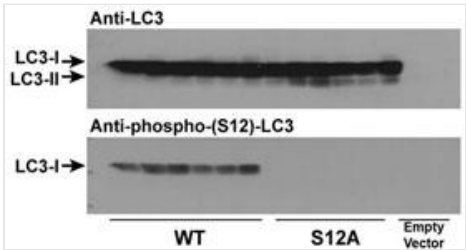
WB (Western Blot)

Immunoblots of SH-SY5Y cells treated with rapamycin for 1 h was probed with AAA285518. The data shows that treatment with rapamycin showed no significant change in level of LC3.



DB (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 0.5ug per ml.



WB (Western Blot)

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

ADDITIONAL INFORMATION

Related Product Information for anti-MAP1LC3A antibody

MAP1A and MAP1B are microtubule-associated proteins which mediate the physical interactions between microtubules and components of the cytoskeleton. These proteins are involved in formation of autophagosomal vacuoles (autophagosomes). MAP1A and MAP1B each consist of a heavy chain subunit and multiple light chain subunits. MAP1LC3a is one of the light chain subunits and can associate with either MAP1A or MAP1B. The precursor molecule is cleaved by APG4B/ATG4B to form the cytosolic form, LC3-I. This is activated by APG7L/ATG7, transferred to ATG3 and conjugated to phospholipid to form the membrane-bound form, LC3-II. Macroautophagy is the major inducible pathway for the general turnover of cytoplasmic constituents in eukaryotic cells, it is also responsible for the degradation of active cytoplasmic enzymes and organelles during nutrient starvation. Macroautophagy involves the formation of double-membrane bound autophagosomes which enclose the cytoplasmic constituent targeted for degradation in a membrane bound structure, which then fuse with the lysosome (or vacuole) releasing a single-membrane bound autophagic bodies which are then degraded within the lysosome (or vacuole).

Product Categories/Family for anti-MAP1LC3A antibody	Cell/Tissues/Lysates; Cell & Tissue Lysates; Crown Antibodies; Cancer; Cell Biology; Signal Transduction
References	Baehrecke EH. Nat Rev Mol Cell Biol. 6(6):505-10. (2005) Lum JJ, et al. Nat Rev Mol Cell Biol. 6(6):439-48. (2005) Greenberg JT. Dev Cell. 8(6):799-801. (2005) Levine B. Cell. 120(2):159-62. (2005) Shintani T and Klionsky DJ. Science. 306(5698):990-5. (2004) Tanida I., et al. Int. J. Biochem. Cell Biol. 36:2503-2518(2004) He H., et al. J. Biol. Chem. 278:29278-29287(2003) Tanida I., et al. J. Biol. Chem. 279:36268-36276(2004)

NCBI AND UNIPROT INFORMATION

NCBI GI #	14210522
NCBI GeneID	84557
NCBI Accession #	NP_115903.1; NP_852610.1
NCBI GenBank Nucleotide #	NM_032514.3
UniProt Accession #	Q9H492; Q9BXW5; E1P5P4; E1P5P5
NCBI Official Full Name	microtubule-associated proteins 1A/1B light chain 3A isoform a
NCBI Official Synonym Full Names	microtubule-associated protein 1 light chain 3 alpha
NCBI Official Symbol	MAP1LC3A
NCBI Official Synonym Symbols	LC3; LC3A; ATG8E; MAP1ALC3; MAP1BLC3
NCBI Protein Information	microtubule-associated proteins 1A/1B light chain 3A
UniProt Protein Name	Microtubule-associated proteins 1A/1B light chain 3A
UniProt Gene Name	MAP1LC3A
UniProt Synonym Gene Names	MAP1A/MAP1B LC3 A
UniProt Entry Name	MLP3A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/phospho-lc3c-s12-antibody-dot-blot-western-blot-elisa/285518>