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Product datasheet for AP32191PU-N

LC3 pSer12 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	**Western Blot:** 1/1000. **Dot Blot:** 1/500.
Reactivity:	Human
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	KLH conjugated synthetic phosphopeptide between 1-30 amino acids surrounding Ser12 of Human LC3 (APG8a).
Specificity:	Recognizes Phospho LC3C- Serine12
Formulation:	PBS State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.09% (W/V) Sodium Azide
Concentration:	lot specific
Purification:	Protein A Affinity Chromatography. Then, the antibody fraction is peptide affinity purified in a 2-step procedure with peptides. The antibody is eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	14272 Da
Gene Name:	microtubule associated protein 1 light chain 3 alpha
Database Link:	NP_115903.1 Entrez Gene 84557 Human Q9H492

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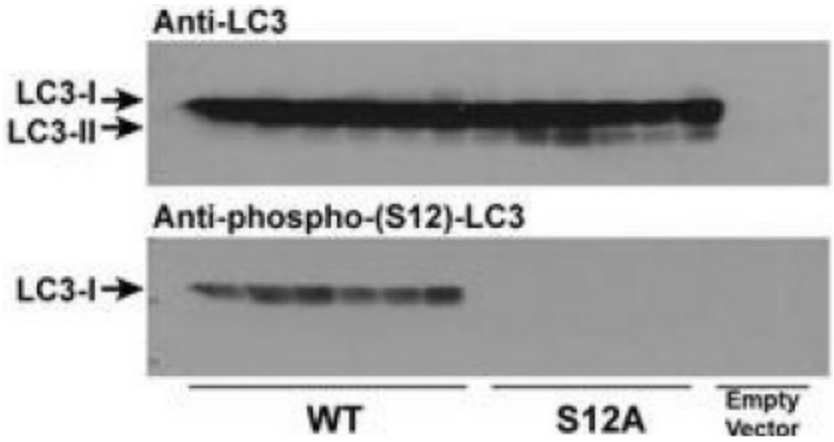
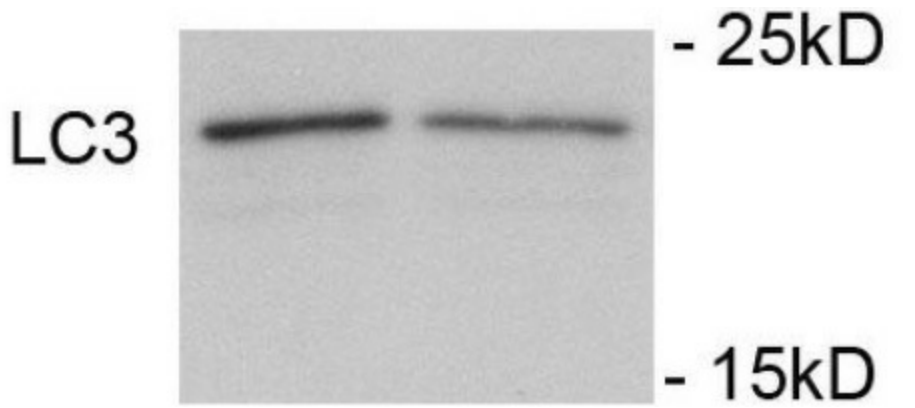
Background: MAP1A and MAP1B are microtubule-associated proteins which mediate the physical interactions between microtubules and components of the cytoskeleton. These proteins are involved in formation of autophagosomal vacuoles (autophagosomes). MAP1A and MAP1B each consist of a heavy chain subunit 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).

Synonyms: MAP1A / 1B light chain 3 A, MAP1A/1B light chain 3 A, MAP1A/MAP1B LC3 A, MAP1 light chain 3-like protein 1, MAP1LC3A, LC3A

Product images:

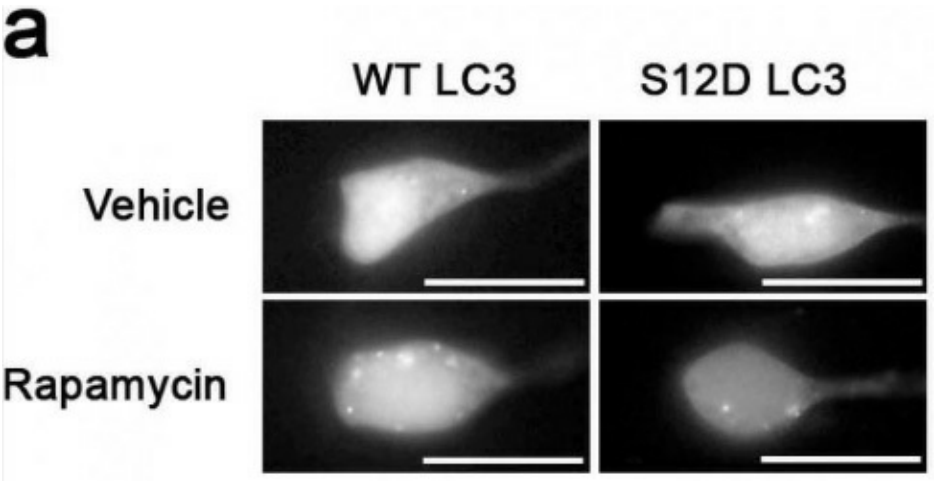


Immunoblots of phosphorylated LC3 (phospho-LC3) in CHO cell culture. LC3 and LC3 S12A mutant vectors were transfected into CHO cells. The cell lysates were separated with SDS-PAGE and blotted with anti-phospho-LC3 S12 antibody. LC3 = microtubule-associated

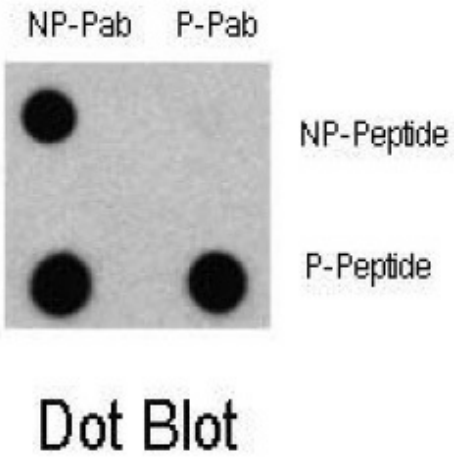


Immunoblots of SH-SY5Y cells treated with rapamycin for 1 h was probed with AP32191PU-N. The data shows that treatment with rapamycin showed no significant change in level of LC3.

Immunoblots of SH-SY5Y cells treated with MPP+ for 24h was probed with AP32191PU-N. The data shows that treatment with MPP+ showed no significant change in level of LC3.



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



Dot blot analysis of Phospho-LC3 (APG8a) -Ser12 Antibody (Cat.-No AP32191PU-N) andNon phospho-LC3 (APG8a) Antibody on nitrocellulose membrane. 50ng ofPhospho-peptide or Non Phospho-peptide perdot were adsorbed. Antibody working concentrations are 0.5 g/ml.