Datasheet for ABIN389699

anti-LC3C antibody (pSer12)

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Overview

Quantity:	400 µL
Target:	LC3C (MAP1LC3C)
Binding Specificity:	pSer12
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This LC3C antibody is un-conjugated
Application:	Western Blotting (WB), Dot Blot (DB)

Product Details

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.
Clone:	RB10838-RB16769
Isotype:	Ig Fraction
Predicted Reactivity:	Zf, B, M, Rat
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	LC3C (MAP1LC3C)
Alternative Name:	LC3C (MAP1LC3C Products)

Target Details

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).
Molecular Weight:	14272
Gene ID:	84557
NCBI Accession:	NP_115903, NP_852610
UniProt:	Q9H492
Pathways:	Autophagy

Application Details

Application Notes:	WB: 1:1000. WB: 1:1000. WB: 1:1000. WB: 1:1000. DB: 1:500
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C

Handling

Storage Comment:	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.
Expiry Date:	6 months

Publications

Product cited in:

Tanaka, Koyama, Sakurai, Kamiyoshi, Ichikawa-Shindo, Kawate, Liu, Xian, Imai, Zhai, Hirabayashi, Owa, Yamauchi, Igarashi, Taniguchi, Shindo: "The endothelial adrenomedullin-RAMP2 system regulates vascular integrity and suppresses tumour metastasis." in: **Cardiovascular research**, Vol. 111, Issue 4, pp. 398-409, (2017) (PubMed).

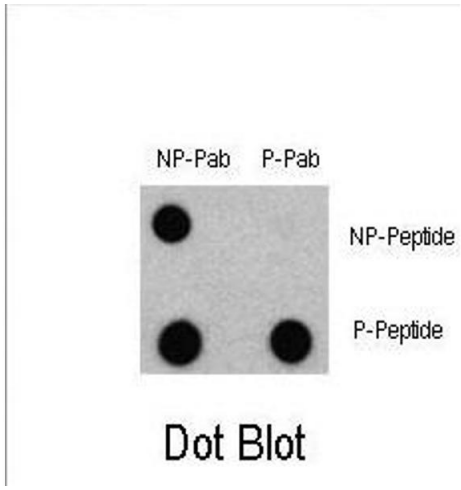
Xie, Kang, Tang: "Assessment of Posttranslational Modifications of ATG proteins." in: **Methods in enzymology**, Vol. 587, pp. 171-188, (2017) (PubMed).

Li, Liu, Wang, Wang, Zhao, Su, Zhang, Zhang, Xu, Zhao, Miao: "Identification of a small molecule targeting annexin A7." in: **Biochimica et biophysica acta**, Vol. 1833, Issue 9, pp. 2092-9, (2013) (PubMed).

Colecchia, Strambi, Sanzone, Iavarone, Rossi, DallArmi, Piccioni, Verrotti di Pianella, Chiariello: " MAPK15/ERK8 stimulates autophagy by interacting with LC3 and GABARAP proteins." in: **Autophagy**, Vol. 8, Issue 12, pp. 1724-40, (2012) (PubMed).

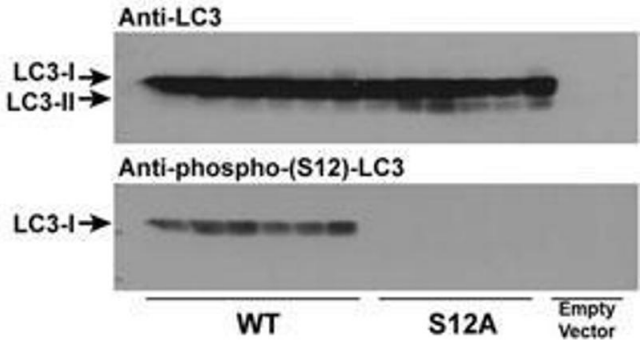
Su, Chao, Huang, Weng, Jeng, Lai: "Rab5 and class III phosphoinositide 3-kinase Vps34 are involved in hepatitis C virus NS4B-induced autophagy." in: **Journal of virology**, Vol. 85, Issue 20, pp. 10561-71, (2011) (PubMed).

There are more publications referencing this product on: Product page



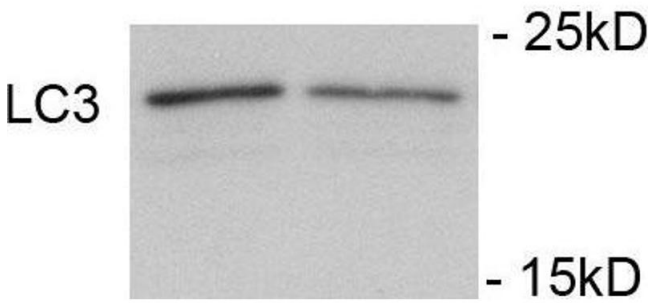
Dot Blot

Image 1. Dot blot analysis of Phospho-LC3 (G8a) - S12 Antibody 3301a and Nonphospho-LC3 (G8a) Antibody on nitrocellulose membrane. 50 ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5 µg per ml.



Western Blotting

Image 2. 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 serated with SDS-GE 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 = 16 kDa, and LC3-II = 14 kDa



Western Blotting

Image 3. Immunoblots of SH-SY5Y cells treated with rapamycin for 1 h was probed with (ABIN389699 and ABIN2839660). The data shows that treatment with rapamycin showed no significant change in level of LC3.

Please check the product details page for more images. Overall 5 images are available for ABIN389699.