

LC3 Antibody (APG8)

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM1800A-200 □

Specification

LC3 Antibody (APG8) - Product info

Application	WB
Primary Accession	Q9H492 , Q9GZ08
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1 k
Clone Names	166AT1234

LC3 Antibody (APG8) - Additional info

Other Names

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

Target/Specificity

This LC3 antibody is generated from mouse immunized with a full length recombinant protein of human LC3 (APG8).

Dilution

WB~~1:1000

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

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.

Precautions

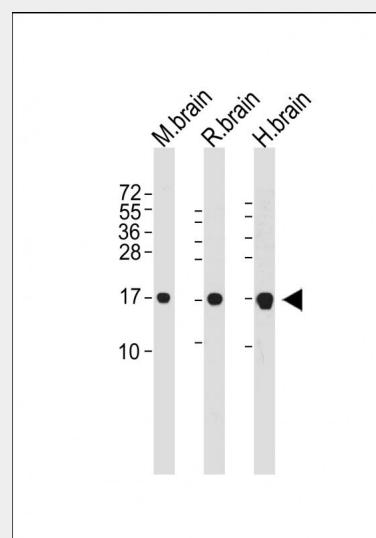
LC3 Antibody (APG8) is for research use only and not for use in diagnostic or therapeutic procedures.

LC3 Antibody (APG8) - Protein Information

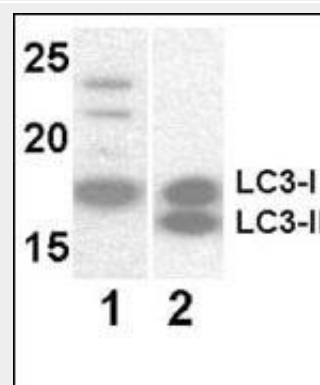
LC3 Antibody (APG8) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)



All lanes : Anti-MAP1LC3A Antibody at dilution
Lane 1: Mouse brain whole cell lysate
Lane 2: Rat brain whole cell lysate
Lane 3: Human brain whole cell lysate
Lysates/proteins at 20 µg per lane.
Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 14 kDa
Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot analysis of anti-LC3 Mab (Cat. #AM1800a) at 8 µg/ml. Lane 1: Y79 (soluble fraction of cell extract); Lane 2: 293 transfected with human LC3 (whole cell extract).

- [□ Immunohistochemistry](#)
- [□ Immunofluorescence](#)
- [□ Immunoprecipitation](#)
- [□ Flow Cytometry](#)
- [□ Cell Culture](#)

LC3 Antibody (APG8) - Background

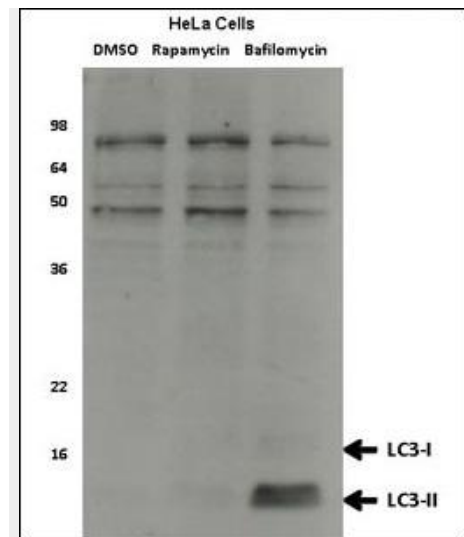
MAP1A and MAP1B are microtubule-associated proteins which mediate the physical interactions between microtubules and components of the cytoskeleton. MAP1A and MAP1B each consist of a heavy chain subunit and multiple light chain subunits. The protein encoded by this gene is one of the light chain subunits and can associate with either MAP1A or MAP1B. Two transcript variants encoding different isoforms have been found for this gene.

LC3 Antibody (APG8) - References

References for protein: 1. Autophagy negatively regulates Wnt signalling by promoting Dishevelled degradation. Gao C, et al. *Nat Cell Biol*, 2010 Aug. PMID 20639871. 2. The prolyl isomerase Pin1 induces LC-3 expression and mediates tamoxifen resistance in breast cancer. Namgoong GM, et al. *J Biol Chem*, 2010 Jul 30. PMID 20479004. 3. Protein kinase C inhibits autophagy and phosphorylates LC3. Jiang H, et al. *Biochem Biophys Res Commun*, 2010 May 14. PMID 20398630. 4. Processing of autophagic protein LC3 by the 20S proteasome. Gao Z, et al. *Autophagy*, 2010 Jan. PMID 20061800. 5. Defective autophagy associated with LC3 puncta in epothilone-resistant cancer cells. Shen S, et al. *Cell Cycle*, 2010 Jan 15. PMID 20023420. References for U251 cell line: 1. Westermark B.; Pontén J.; Hugosson R. (1973). "Determinants for the establishment of permanent tissue culture lines from human gliomas". *Acta Pathol Microbiol Scand A*. 81:791-805. [PMID: 4359449]. 2. Pontén, J., Westermark B. (1978). "Properties of Human Malignant Glioma Cells in Vitro". *Medical Biology* 56: 184-193. [PMID: 359950]. 3. Geng Y.; Kohli L.; Klocke B.J.; Roth K.A. (2010). "Chloroquine-induced autophagic vacuole accumulation and cell death in glioma cells is p53 independent". *Neuro Oncol*. 12(5): 473-481. [PMID: 20406898].

LC3 Antibody (APG8) - Citations

- [Deletion of the BH3-only protein Noxa alters electrographic seizures but does not protect against hippocampal damage after status epilepticus in mice.](#)
- [Cross-talk between lipid and protein carbonylation in a dynamic cardiomyocyte model of mild nitroxidative stress.](#)
- [Tamoxifen Induces Cytotoxic Autophagy in Glioblastoma.](#)
- [Lapatinib induces autophagic cell death and differentiation in acute myeloblastic leukemia.](#)
- [Male meiotic cytokinesis requires ceramide synthase 3-dependent sphingolipids with unique membrane anchors.](#)
- [GMI, an immunomodulatory protein from *Ganoderma microsporum*, potentiates cisplatin-induced apoptosis via autophagy in lung cancer cells.](#)
- [CD40 ligand exhibits a direct antiviral effect on Herpes Simplex Virus type-1 infection via a PI3K-dependent, autophagy-independent mechanism.](#)
- [Atorvastatin induces autophagic cell death in prostate cancer cells in vitro.](#)
- [Immunohistochemical study of the autophagy marker microtubule-associated protein 1 light chain 3 in normal and steatotic human livers.](#)
- [The effect of RNAi silencing of p62 using an osmotic polysorbitol transporter on autophagy and tumorigenesis in lungs of K-ras\(LA1\) mice.](#)
- [Production of interferon \$\alpha\$ by human immunodeficiency virus type 1 in human plasmacytoid dendritic cells is dependent on induction of autophagy.](#)
- [Induction of autophagy is essential for monocyte-macrophage differentiation.](#)
- [Beclin 1 knockdown inhibits autophagic activation and prevents the secondary neurodegenerative damage in the ipsilateral thalamus following focal cerebral infarction.](#)
- [Mouse knock-out of IOP1 protein reveals its essential role in mammalian cytosolic iron-sulfur protein biogenesis.](#)
- [Characterization of Puma-dependent and Puma-independent neuronal cell death pathways following prolonged proteasomal inhibition.](#)
- [The unfolded protein response protects human tumor cells during hypoxia through regulation of the autophagy genes MAP1LC3B and ATG5.](#)
- [The Rac1/MKK7/JNK pathway signals upregulation of Atg5 and subsequent autophagic cell death in](#)



Western blot analysis of anti-LC3 Mab (Cat. #AM1800a) HeLa cell lysates, which were treated with rapamycin or bafilomycin overnight. Data courtesy of Dr. David Rubinsztein, Cambridge Institute for Medical Research.

[response to oncogenic Ras.](#)