

Rabbit LC3A Polyclonal Antibody | anti-LC3A antibody

LC3A Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31334	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Dog (100%), Chicken (100%), Xenopus (100%)	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

LC3A; Polyclonal Antibody; LC3A Antibody; ATG8E; Autophagy-related protein LC3 A; Autophagy-related ubiquitin-like modifier LC3 A; LC3; MAP1 light chain 3 like protein 1; MAP1 light chain 3-like protein 1; MAP1A/1B light chain 3 A; MAP1A/MAP1B LC3 A; MAP1A/MAP1B light chain 3 A; MAP1ALC3; MAP1BLC3; Map1lc3a; Microtubule associated proteins 1A/1B light chain 3; Microtubule-associated protein 1 light chain 3 alpha; Microtubule-associated proteins 1A and 1B; light chain 3; Microtubule-associated proteins 1A/1B light chain 3A; MLP3A_HUMAN; anti-LC3A antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	MAP1LC3A Antibody detects endogenous levels of total MAP1LC3A. Tissue Specificity: Most abundant in heart, brain, liver, skeletal muscle and testis but absent in thymus and peripheral blood leukocytes.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-LC3A antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA (Peptide ELISA)
Application Notes	WB: 1:1000-1:5000 IHC: 1:50-1:200 IF/ICC: 1:100-1:500 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human MAP1LC3A, corresponding to a region within the internal amino acids.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	The precursor molecule is cleaved by 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. The Legionella effector RavZ is a deconjugating enzyme that produces an ATG8 product that would be resistant to re-conjugation by the host machinery due to the cleavage of the reactive C-terminal glycine. Phosphorylation at Ser-12 by PKA inhibits conjugation to phosphatidylethanolamine (PE). Interaction with MAPK15 reduces the inhibitory phosphorylation and increases autophagy activity.

Subunit Structure	3 different light chains, LC1, LC2 and LC3, can associate with MAP1A and MAP1B proteins (By similarity). Interacts with TP53INP1 and TP53INP2. Directly interacts with SQSTM1; this interaction leads to MAP1LC3A recruitment to inclusion bodies containing polyubiquitinated protein aggregates and to inclusion body degradation by autophagy. Interacts with ATG13. Interacts with ULK1. Interacts with TBC1D5. Found in a complex with UBQLN1 and UBQLN2. Interacts with UBQLN4 (via ST11 1 and 2 domains). Interacts with UBQLN1 in the presence of UBQLN4. Interacts with TRIM5. Interacts with MEFV. Interacts with RETREG1, RETREG2 and RETREG3. Interacts with PICALM. Interacts with the reticulophagy receptor TEX264.
Similarity	Belongs to the ATG8 family.
Subcellular Location	Cytoplasm>Cytoskeleton. Endomembrane system>Lipid-anchor. Cytoplasmic vesicle>Autophagosome membrane>Lipid-anchor. Cytoplasmic vesicle>Autophagosome. Note: LC3-II binds to the autophagic membranes.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
At 1/100 staining Mouse kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse ovary tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse stomach tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human skin tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Human normal tissues adjacent to esophageal cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-LC3A antibody	Ubiquitin-like modifier involved in formation of autophagosomal vacuoles (autophagosomes). Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation. 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. Probably involved in formation of autophagosomal vacuoles (autophagosomes).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	85701362
NCBI GeneID	84557

UniProt Accession #	Q9H492; Q9BXW5; E1P5P4; E1P5P5
Molecular Weight	14,272 Da
NCBI Official Full Name	Microtubule-associated proteins 1A/1B light chain 3A
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; MAP1A/MAP1B LC3 A; MAP1A/1B light chain 3 A; MAP1A/MAP1B light chain 3 A; MAP1 light chain 3-like protein 1; autophagy-related ubiquitin-like modifier LC3 A
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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