10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Cleaved LC3A Antibody Blocking peptide
Synthetic peptide
Catalog # BP1805a

Specification

Cleaved LC3A Antibody Blocking peptide - Product Information

Primary Accession	Q9H492
Other Accession	Q5JWU0

Cleaved LC3A Antibody Blocking peptide - Additional Information

Gene ID 84557

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
The synthetic peptide sequence used to generate the antibody <a >AP1805a was selected from the C-terminal cleavage site of human cleaved-LC3 (APG8a). A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Cleaved LC3A Antibody Blocking peptide - Protein Information

Name MAP1LC3A (HGNC:6838)

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:<a

href="http://www.uniprot.org/citations/31006538" target="_blank">31006538, PubMed:31006537).

Cellular Location
Cytoplasmic vesicle, autophagosome membrane; Lipid-anchor. Endomembrane system; Lipid-anchor. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q91VR7}. 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

Cleaved LC3A Antibody Blocking peptide - Protocols

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

- Blocking Peptides

Cleaved LC3A Antibody Blocking peptide - Images

Cleaved LC3A Antibody Blocking peptide - Background

Autophagy is a process of intracellular bulk degradation in which cytoplasmic components including organelles are sequestered within double-membrane vesicles that deliver the contents to the lysosome/vacuole for degradation. There are three primary forms of autophagy: chaperone-mediated autophagy, microautophagy and macroautophagy. During macroautophagy, the sequestering vesicles, termed autophagosomes, fuse with the lysosome or vacuole resulting in the delivery of an inner vesicle (autophagic body) into the lumen of the degradative compartment. There are 16 proteins participating in autophagy pathway in human (http://ca.expasy.org/cgi-bin/get-entries? KW=Autophagy&view=tree). Abgent?s exclusive product line for autophagy research, 2-4 epitopes for each protein, provides antibodies against each protein in the pathway.

Cleaved LC3A Antibody Blocking peptide - 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)