

ATG9A Antibody (C-term) Blocking peptide

Synthetic peptide Catalog # BP1814c

Specification

ATG9A Antibody (C-term) Blocking peptide - Product Information

Primary Accession <u>Q7Z3C6</u>

ATG9A Antibody (C-term) Blocking peptide - Additional Information

Gene ID 79065

Other Names

Autophagy-related protein 9A, APG9-like 1, mATG9, ATG9A, APG9L1

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP1814c was selected from the C-term region of human Autophagy APG9L1. 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.

ATG9A Antibody (C-term) Blocking peptide - Protein Information

Name ATG9A

Synonyms APG9L1

ATG9A Antibody (C-term) Blocking peptide - Background

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). Apg9 plays a direct role in the formation of the cytoplasm to vacuole targeting and autophagic vesicles, possibly serving as a marker for a specialized compartment essential for these vesicle-mediated alternative targeting pathways.

ATG9A Antibody (C-term) 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)



Function

Involved in autophagy and cytoplasm to vacuole transport (Cvt) vesicle formation. Plays a key role in the organization of the preautophagosomal structure/phagophore assembly site (PAS), the nucleating site for formation of the sequestering vesicle. Cycles between a juxta-nuclear trans-Golgi network compartment and late endosomes. Nutrient starvation induces accumulation on autophagosomes. Starvation-dependent trafficking requires ULK1, ATG13 and SUPT20H.

Cellular Location

Cytoplasmic vesicle, autophagosome membrane; Multi-pass membrane protein. Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein Late endosome membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Note=Under amino acid starvation or rapamycin treatment, redistributes from a juxtanuclear clustered pool to a dispersed peripheral cytosolic pool. The starvation-induced redistribution depends on ULK1, ATG13, as well as SH3GLB1

ATG9A Antibody (C-term) Blocking peptide - Protocols

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

• Blocking Peptides