

ATG12 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP1816a**Specification**

ATG12 Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [O94817](#)**ATG12 Antibody (N-term) Blocking peptide - Additional Information****Gene ID** 9140**Other Names**

Ubiquitin-like protein ATG12, Autophagy-related protein 12, APG12-like, ATG12, APG12, APG12L

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1816a](/product/products/AP1816a) was selected from the N-term region of human Autophagy APG12L. 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.

ATG12 Antibody (N-term) Blocking peptide - Protein Information**Name** ATG12 ([HGNC:588](#))**Synonyms** APG12, APG12L**Function**

Ubiquitin-like protein involved in autophagy vesicles formation. Conjugation with ATG5 through a ubiquitin-like conjugating system involving also ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes.

Cellular Location

Cytoplasm. Preautophagosomal structure membrane; Peripheral membrane protein. Note=TECPR1 recruits the ATG12- ATG5 conjugate to the autolysosomal membrane

Tissue Location

Ubiquitous..

ATG12 Antibody (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

ATG12 Antibody (N-term) Blocking peptide - Images**ATG12 Antibody (N-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). APG12L is the human homolog of yeast APG12, a ubiquitin-activating enzyme E1-like protein essential for the conjugation system that mediates membrane fusion in autophagy.

ATG12 Antibody (N-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)