

APG7L Antibody(D555) Blocking peptide
Synthetic peptide
Catalog # BP11191a**Specification**

APG7L Antibody(D555) Blocking peptide - Product InformationPrimary Accession [O95352](#)**APG7L Antibody(D555) Blocking peptide - Additional Information****Gene ID** 10533**Other Names**

Ubiquitin-like modifier-activating enzyme ATG7, ATG12-activating enzyme E1 ATG7, Autophagy-related protein 7, APG7-like, hAGP7, Ubiquitin-activating enzyme E1-like protein, ATG7, APG7L

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.

APG7L Antibody(D555) Blocking peptide - Protein Information**Name** ATG7 ([HGNC:16935](#))**Synonyms** APG7L**Function**

E1-like activating enzyme involved in the 2 ubiquitin-like systems required for cytoplasm to vacuole transport (Cvt) and autophagy. Activates ATG12 for its conjugation with ATG5 as well as the ATG8 family proteins for their conjugation with phosphatidylethanolamine. Both systems are needed for the ATG8 association to Cvt vesicles and autophagosomes membranes. Required for autophagic death induced by caspase-8 inhibition. Facilitates LC3-I lipidation with phosphatidylethanolamine to form LC3-II which is found on autophagosomal membranes (PubMed:34161705). Required for mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production. Modulates p53/TP53 activity to regulate cell cycle and survival during metabolic stress. Also plays a key role in the maintenance of axonal homeostasis, the prevention of axonal degeneration, the maintenance of hematopoietic stem cells, the formation of Paneth cell granules, as well as in adipose differentiation. Plays a role in regulating the liver clock and glucose metabolism by mediating the autophagic degradation of CRY1 (clock repressor) in a

time-dependent manner (By similarity).

Cellular Location

Cytoplasm. Preautophagosomal structure. Note=Also localizes to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme

Tissue Location

Widely expressed, especially in kidney, liver, lymph nodes and bone marrow.

APG7L Antibody(D555) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

APG7L Antibody(D555) Blocking peptide - Images**APG7L Antibody(D555) Blocking peptide - Background**

This gene was identified based on homology to Pichiapastoris GSA7 and Saccharomyces cerevisiae APG7. In the yeast, the protein appears to be required for fusion of peroxisomal and vacuolar membranes. The protein shows homology to the ATP-binding and catalytic sites of the E1 ubiquitin activating enzymes.

APG7L Antibody(D555) Blocking peptide - References

Metzger, S., et al. Hum. Genet. 128(4):453-459(2010) Zhao, Y., et al. Nat. Cell Biol. 12(7):665-675(2010) Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Xue, L.Y., et al. Autophagy 6(2):248-255(2010) Zhu, K., et al. Oncogene 29(3):451-462(2010)