

Autophagy Atg8 Family Antibody Sampler Kit

Cat# AK0126

Upon receipt, store at -20°C. Avoid freeze/thaw cycles.

PRODUCT DESCRIPTION

Autophagy is a catabolic process for the autophagosomic-lysosomal degradation of bulk cytoplasmic contents. Autophagy is generally activated by conditions of nutrient deprivation, but it has also been associated with a number of physiological processes, including development, differentiation, neurodegenerative diseases, infection, and cancer. Atg8 is a ubiquitin-like protein that is critical for autophagosome formation. Atg8 is synthesized as a precursor protein that is processed by the cysteine protease Atg4, followed by lipidation with phosphatidylethanolamine (PE) in a ubiquitin-like conjugation pathway involving Atg7 and Atg3. This processing of Atg8, which is described as a conversion from type-I to type-II forms, is frequently described as a marker for autophagy. The type-II form of Atg8 is incorporated into maturing autophagosomes and leads to the recruitment of additional autophagy components, including cargo receptors like SQSTM1/p62. While yeast has a single Atg8 gene, many eukaryotes have at least six orthologs, including three microtubule-associated protein 1 light chain 3 (MAP1LC3/LC3) family members (LC3A, LC3B, and LC3C) and three GABAA receptor associated protein (GABARAP) family members (GABARAP, GABARAPL1/GEC1, and GABARAPL2/GATE-16). While highly conserved, these various family members can have important differences in their post-translational processing, expression profile, and protein interactions including distinct cargo receptor. This complexity within the Atg8 family is critical for selective mechanisms of autophagy that have been reported.

PRODUCT INCLUDES

| Cat No. | Product name | Quantity | Applications | Reactivity | Host |
|----------------|---|----------|---------------|----------------------|--------|
| A330127 | MAP1LC3A Monoclonal Antibody | 20µL | WB, IHC-p, IF | Human, Mouse, Rat | Mouse |
| A340725 | MAP1LC3B Polyclonal Antibody | 20µL | WB, IHC-p, IF | Human, Mouse, Rat | Rabbit |
| A340162 | MAP1LC3C Polyclonal Antibody | 20µL | WB, ELISA | Human | Rabbit |
| A1013s | Goat Anti-Rabbit IgG (H+L) (peroxidase/HRP conjugated) | 120µL | WB, ELISA | Rabbit | Goat |
| A1012s | Goat Anti-Mouse IgG (H+L) (peroxidase/HRP conjugated) | 120µL | WB, ELISA | Mouse | Goat |

PRODUCT USE LIMITATION

These products are intended for research use only.