

Autophagy protein 5 (ATG5), Recombinant Protein

Cat RP02079

Size 0.02 mg (E-Coli)/ 0.02 mg (Yeast)/ 0.1 mg (E-Coli)/ 0.1 mg (Yeast)/ 0.02 mg (Baculovirus)/ 0.02 mg (Mammalian-Cell)/ 0.1

mg (Baculovirus)/ 1 mg (E-Coli)/ 1 mg (Yeast)/ 0.1 mg (Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)
Species Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant Arabidopsis thaliana Autophagy protein 5 (ATG5)

Product Gene Name

ATG5 recombinant protein

Product Synonym Gene Name

ATG5

Purity

Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)

Sequence

MAKEAVKYVW EGAIPQLIHL HKSDVASHPA PPPALVLAPR IGYLPLLIPL IKPYFKDSLP PGEDSIWFDY
KGFPLKWIYP TGVLFDLLCA EPERPWNLT I HFRGYPCNIL IPCEGEDSVK WNFVNSLKEA QYIINGNCKN
VMNMSQSDQE DLWTSVMNGD LDAYTRLSPK LKMGTVEDEF SRKTSLSPPQ SQQVVPETEV AGQVK TARIP
VRLYVRS LNK DFENLEDVPE IDTWDDISYL NRPVEFLKEE GKCFTLRDAI KSLLEPFMGD RAQTSGEERS
IDDT EADGS REMGEIKLVR IQGIEMKLEI PFSWVNNLM NPEFY LHISV LVKAPQR

Sequence Positions

1-337, Full length protein

Format

Lyophilized or liquid (Format to be determined during the manufacturing process)

Host

E Coli or Yeast or Baculovirus or Mammalian Cell

Molecular Weight

38,477 Da

Storage

Store at -20°C. For long-term storage, store at -20°C or -80°C. Store working aliquots at 4°C for up to one week. Repeated freezing and thawing is not recommended.

Protein Family

Autophagy protein

NCBI Accession

NP_197231.1

NCBI GI

15237945

NCBI GenBank Nucleotide

NM_121735.5

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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(Yeast)/ 0.02 mg (Baculovirus)/ 0.02 mg (Mammalian-Cell)/ 0.1

mg (Baculovirus)/ 1 mg (E-Coli)/ 1 mg (Yeast)/ 0.1 mg
(Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-
Cell)

NCBI GeneID

831594

NCBI Official Full Name

autophagy protein Apg5 family

NCBI Official Symbol

APG5

NCBI Official Synonym Symbols

ATATG5; ATG5; AUTOPHAGY 5; MKP11.20; MKP11_20

NCBI Protein Information

autophagy protein Apg5 family

NCBI Summary

Autophagy protein ATG5. Forms a conjugate with ATG12 with an essential role in plant nutrient recycling. Mutants missing ATG5 display early senescence and are hypersensitive to nitrogen or carbon starvation, accompanied by a more rapid loss of organellar and cytoplasmic proteins.

UniProt Gene Name

ATG5

UniProt Synonym Gene Names

AtAPG5

UniProt Protein Name

Autophagy protein 5

UniProt Synonym Protein Names

Protein autophagy 5

UniProt Primary Accession

Q9FFI2

UniProt Related Accession

Q9FFI2

UniProt Comments

Required for autophagy. Conjugation to ATG12 is essential for plant nutrient recycling (PubMed:16040659). Involved in a negative feedback loop that modulates NPR1-dependent salicylic acid (SA) signaling and limits senescence and immunity-related programmed cell death (PCD) in plants (PubMed:19773385). Involved in complete proteolysis of chloroplast stroma proteins in senescent leaves (PubMed:23327451). Involved in the degradation of damaged peroxisomes (PubMed:24463818).

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