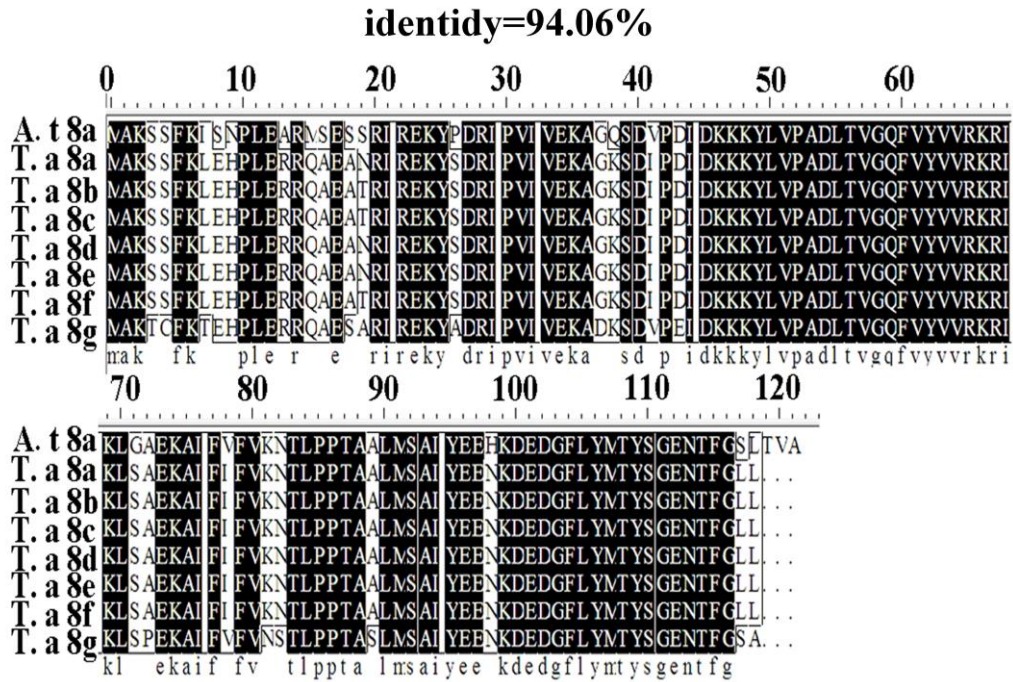


## Supplementary Material



**Figure S1** the protein sequence of *A. thaliana* APG8A was alignment with those of wheat ATG8 (ATG8a, 8b, 8c, 8d, 8e, 8f and 8g) by DNAMAN6.0 software.

**Table S1** Primers used in the experiments

Primer name	Sequence (5'-3')
ATG3QRTf	CCCTCCGATAAGCAGTTC
ATG3QRTTr	TTTCACCAGCACCAAAGTA
ATG4QRTf	GAAAGCCCCGCACAGAGTC
ATG4QRTTr	ACCCGAGACCACATAGAGC
ATG5QRTf	GCTGCCTTCATCATAACTGG
ATG5QRTTr	ATCGCATCTTCTAAATACTCG
ATG6QRTf	TTCCGTCTCGGTCGTCT
ATG6QRTTr	CAAACCTTATGGCAAACCTCG
ATG7QRTf	TGCCTCACTGGTGCTTAG
ATG7QRTTr	CAATCCTTGAGTTGCCTTA
ATG8QRTf	AGGCTGATAAGTCTGATGTCC
ATG8QRTTr	CGTCCTCGTCCTTGTTTT

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ATG9QRTf	ACGGCAAACAGTTCTTAC
ATG9QRTr	TCTGCATGGTTACGGATA
ATG10QRTf	GACCCTGTCCCTGATGAT
ATG10QRTr	GAAGTGAGTGAGGAGGAAGAT
ATG12QRTf	ACAAGTTCAGGATTCAGGACGAG
ATG12QRTr	TGCCGACAAAGCATAGTTTACCAC
ATG13QRTf	TGCTCCTGTGGTCATTC
ATG13QRTr	CCCGCTCATCCAGTTCAT
ATG16QRTf	CCAATGCGATGTATGAGGA
ATG16QRTr	GTAGATGGCACTGGTGTTTC
Atg6RNAiF	TCCATATACAAGACATCTAC
Atg6RNAiR	TTCGCTAAGGATGTTGTAGG
DsGFPF	ATGGTGAGCAAGGGCGAGG
DsGFPR	AGAAGATGGTGCGCTCCTG
$\alpha$ -TubulinF	AACTTCGCCCCGTGGTCAT
$\alpha$ -TubulinR	CAGCGTTGAATACAAGGAATC

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ATG(3,4,...)QRT primers are used for Quantitative real-time reverse transcription-PCR (qRT-PCR) of *autophagy-related genes (ATGs)*. ATG6RNAi primers are used for amplifying the interference sequence of autophagy-related 6 (*ATG6*).