

Figure S1. Effects of silencing of autophagy genes on ChiVMV infection. (a) Symptom on ATG3 or ATG7 silenced *N. benthamiana* plants inoculated with ChiVMV-GFP. (b) Fluorescent photographs of inoculated leaves. (c) Fluorescence intensity of GFP in systemic leaves. (d) Relative expression of viral CP in systemic leaves. (e). Relative expression of viral CP in ChiVMV-GFP inoculated leaves (f) Accumulation of viral coat protein in inoculated and systemic leaves. Significant differences were determined by one-way ANOVA (**P < 0.01, ***P < 0.001).

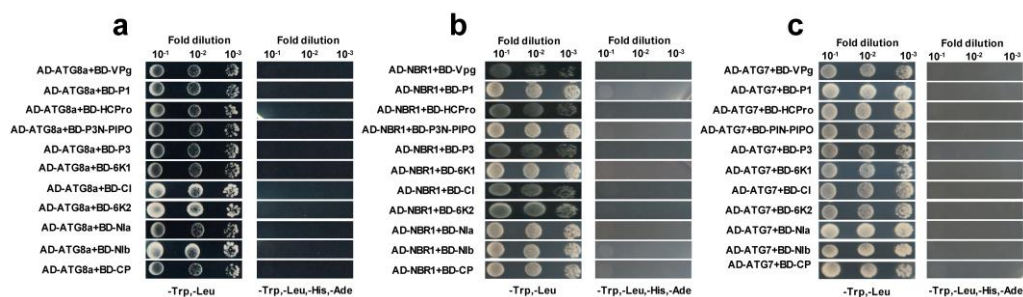


Figure S2. Y2H screening of the interaction between autophagy-related proteins and ChiVMV encoded proteins. (a) Screening of the interaction between NbATG8a and ChiVMV encoded proteins. (b) Screening of the interaction between NbNBR1 and ChiVMV encoded proteins. (c) Screening of the interaction between NbATG7 and ChiVMV encoded proteins.

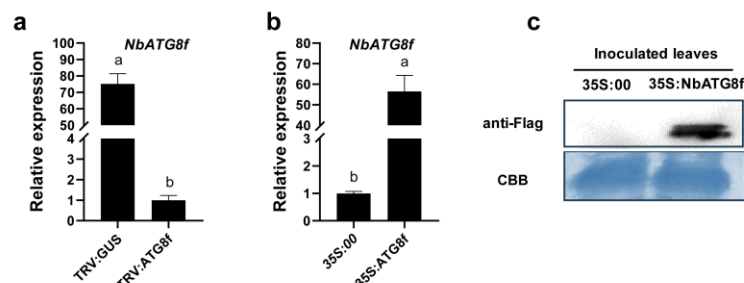


Figure S3. Identification of the effects of NbATG8f silencing or overexpressing in *N. benthamiana* plants. (a) qRT-PCR analysis of NbATG8f expression in control or silenced plants. (b) qRT-PCR analysis of NbATG8f expression in control or overexpressed plants. (c) Western blot analysis of NbATG8f expression in control or overexpressed plants. Significant differences were determined by one-way ANOVA (**P < 0.01, ***P < 0.001).

Table S1. Primers used in the present study.

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Primer Names	Primer Sequences (5'-3')	Purpose
ChiVMV-CP-F	TCTTGGTATGAGGGTGT	qPCR
ChiVMV-CP-R	GTCTAAATGATGGCTTGG	
NbActin-F	GATGAAGATACTCACAGAAAGA	
NbActin-R	GTGGTTTCATGAATGCCAGCA	
NbATG3-F	CGGCGATAATCTCGTCTC	
NbATG3-R	TGTCATCCTCGTCACTTT	
NbATG5-F	CCTCCTCTTCTAAATCACC	
NbATG5-R	TCATCCATTGGCATCAGT	
NbATG7-F	TGACTGTCTAAATGGTGGCA	
NbATG7-R	ACCGACTTTCCCGTGTAT	
NbATG8f-F	TTGAGAAGAGGCGTGCTG	
NbATG8f-R	CATCTGTTGGTGGTAGGA	
Nbbeclin1-F	AGAACTGCCACAATCCTC	
Nbbeclin1-R	TTCCATAGCCTTCCCAA	
NbNBR1-F	TTGCGGGTATCTGTGAGG	
NbNBR1-R	AAGGCTGATTCTGGTAGTAGGA	
NbPI3K-F	CAGGAATCAGGAGCAAAC	
NbPI3K-R	AAGAACTTAGTCAGAGCC	
TRV-ATG3-F	GGAATTCAAATGATGGCTGGCTT	VIGS
TRV-ATG3-R	CGGGGTACCTTATCATACTGATGCTGA	
TRV-ATG7-F	GGAATTCATGGCGGATAGTGGA	
TRV-ATG7-R	CGGGATTTCGTTGCAGGAGGATCAAG	
TRV-ATG8f-F	GAATTCATGGCAAAGAGTTTCAATCAA	
TRV-ATG8f-R	CGGGATCCTTGCGAATGACATAG	
AD-ATG8a-F	GAATTCATGGCCAAAAGCTCCTTCA	Yeast two-hybrid
AD-ATG8a-R	GGATCCTTAGAACGATCCGAATGT	
AD-ATG8f-F	GAATTCATGGCAAAGAGTTTCAATCAA	
AD-ATG8f-R	GGATCCTTACACCAAGTTAAAGT	
AD-NBR1-F	GAATTCATGGCCATGGAGTCTGCTATTGT	
AD-NBR1-R	GGATCCCTACTGCTCTCCAGCAATAAGA	
AD-Beclin1-F	GAATTCATGACGAAAAATAGCAGCA	
AD-Beclin1-R	GGATCCTCAAGATTGAACTTGGTATTAG	
AD-ATG7-F	GGAATTCATGGCGGATAGTGGA	
AD-ATG7-R	CCGCTCGAGTTATATTTCTATAGAGTCATC	
BD-VPg-F	CGCGGATCCATGGCACAAAAGAAGAACA	
BD-VPg-R	CGCGTCGACTTCATGCTCAACCCCTTCTC	
BD-P1-F	CGGAATTCATGGCTGTGCAAGTTACC	
BD-P1-R	CGGGATCCATAATGATTGACTTTAGGAAT	
BD-HCPro-F	CGCGGATCCATGTCAGCAGGTGAGCTC	
BD-HCPro-R	CGCGTCGACACCAACTCTGTACATCTTC	

BD-P3N-PIPO-F	CGGAATTCATGGGTGAAGGAATTGAAA	
BD-P3N-PIPO-R	CGGGATCCTTTTTCCATAATATGCAAGGAT	
BD-P3-F	CGGAATTCATGGGTGAAGGAATTGAAA	
BD-P3-R	CGGGATCCTTGATGACCCACTGGTTCCT	
BD-6K1-F	CGGAATTCATGGCAAGCAAAAGACCATC	
BD-6K1-R	CGGGATCCCTGGTGATTACAGCTTC	
BD-CI-F	CGGAATTCATGAGCCTGGATACCATCTTAG	
BD-CI-R	CGGGATCCTTGATGCATGACTGTTTCCA	
BD-NIa-F	CGCGGATCCATGGCCCCGCTCATTGAAC	
BD-NIa-R	CGCGTCGACCTGTTCAAAACCAGTG	
BD-NIb-F	TCCCCCGGGATGGCGAGCGAGAAGTGGTT	
BD-NIb-R	CGCGTCGACTTGGTGAATAACTTCAC	
BD-CP-F	CGCGGATCCATGGCAGGAGAGAGTGTG	
BD-CP-R	CGCGTCGACTAATCCCCGAACGCCTAGC	
BD-6K2-F	CGGAATTCATGAGTATAGATGATATCAGCA	
BD-6K2-R	CGGGATCCTTGGTGGTTGACTTGTTTAC	
ATG8f-GFP-F	CGGGATCCATGGCAAAGAGTTCATTC	
ATG8f-GFP-R	ACGCGTCGACTTACACCAAGTTAAAGTCCC	
ATG8f-flag-F	CGGGATCCATGGCAAAGAGTTCATTC	
ATG8f-flag-R	ACGCGTCGACTTACACCAAGTTAAAGTCCC	
6K2-GFP-F	CGGGATCCATGAGTATAGATGATATCAG	Transient expression
6K2-GFP-R	ACGCGTCGACTTGGTGGTTGACTTGTTTAC	
6K2-RFP-F	ACGCGTCGACATGAGTATAGATGATATCAG	
6K2-RFP-R	CGGGATCCTTGGTGGTTGACTTGTTTAC	
nYFP-ATG8f-F	CGGGATCCATGGCAAAGAGTTCATTC	
nYFP-ATG8f-R	ACGCGTCGACCACCAAGTTAAAGTCCC	
cYFP-6K2-F	CAATTACAGGTACCCGGGGATCCAGTATAGATGATATC	BiFC
cYFP-6K2-R	CACGCTGCCACCGCCGTCGACATTGGTGGTTGACTTGT	