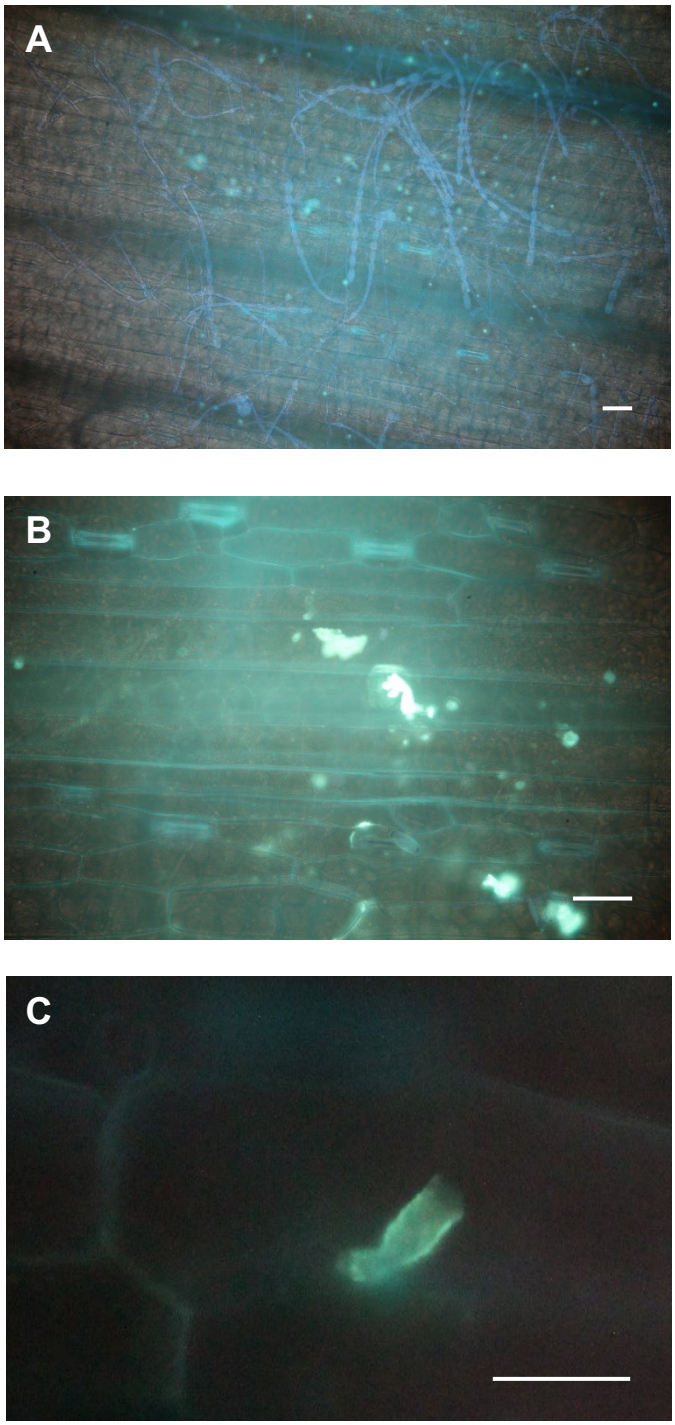
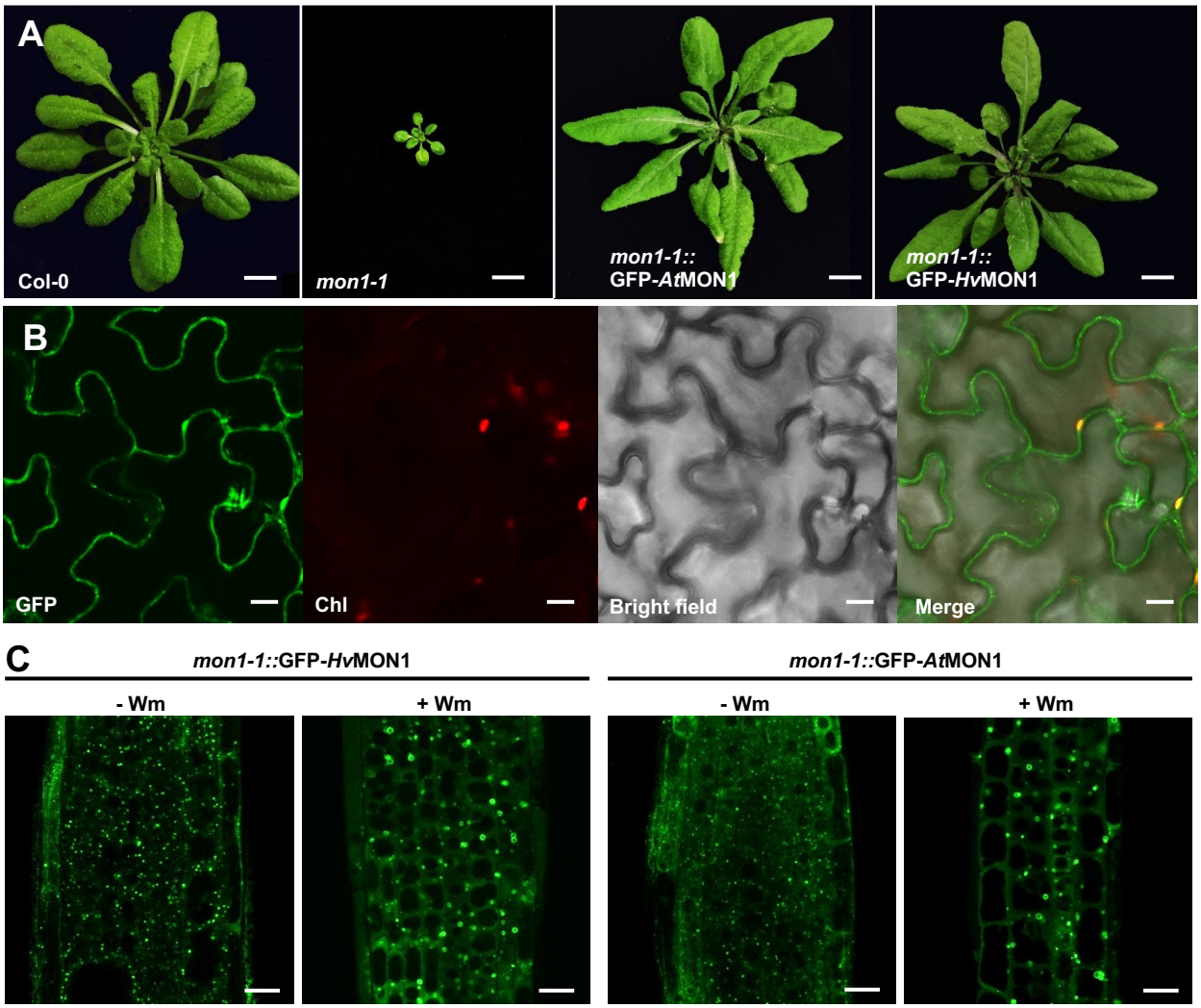
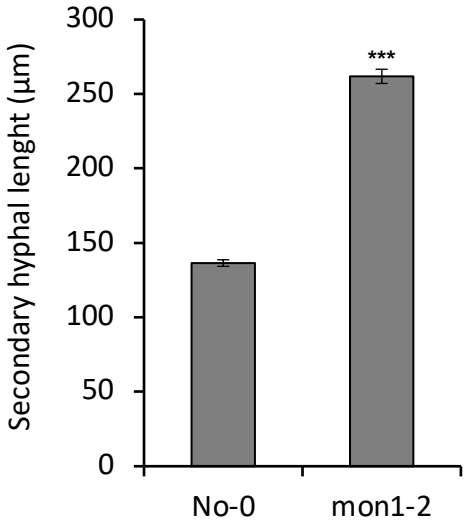


Supplementary Figure S1. Callose-containing encasements around *Bh* haustoria in barley induced by tetraconazole. (A) *Bh* colony and conidia chains developed on barley 4 days after inoculation. **(B,C)** Tetraconazole-induced encasements around *Bh* haustoria in barley epidermal cells. Inoculation was made 2 h after treatment. Images taken 4 dpi. UV-fluorescence microscopy after aniline blue treatment. Size bars, 100 µm in A and B, 10 µm in C.



Supplementary Figure S2. Barley *Hv*MON1 complements the function of Arabidopsis *At*MON1. (A) Transformation of Col-0 *mon1-1* with *35S::*Hv*MON1* rescues it from its lethality phenotype. Size bars, 1 cm, **(B)** CSLM subcellular localization of GFP-*Hv*MON1 expressed in *mon1-1* leaf cells epidermal. **(C)** Wortmannin-induced ring-shaped structures of GFP-*Hv*MON1 and GFP-*At*MON1 resolved by CSLM. Roots were treated with 33 µM wortmannin for 1 hour. Size bars, 10 µm in B and 10 µm C.



Supplementary Figure S3. Secondary hyphal lenght of *Go* on No-0 and *mon1-2*. Lenght of secondary hyphae developed from penetrated appressoria at 2 days after inoculation. Error bars, SE. ***, *P*<0.001 assessed by Student's T-tests. n=3.

Supplementary Table S1. Primers used in this work.

Name	Information	Sequence (5'-3')
attbHvMON1-F	Hv*MON1* Cloning	AAAAAAGCAGGCTACATGGATCCGGCCCCCGAT
attbHvMON1-R		AGAAAGCTGGGTCTCACCAGGCAATGGTGCT
attBCSEP0162-F	CSEP0162 Cloning	AAAAAGCAGGCTACATGGCCCAATATTCTAGACATATTAA
attBCSEP0162-R		AGAAAGCTGGGTCTCCCGAGCCAACTGCG
attbAtMON1-F	At*MON1* Cloning	AAAAAGCAGGCTACATGGCGACTTCAGATTCG
attbAtMON1-R		AGAAAGCTGGGTCTCACCAAGAGAAAGGACTAGCT
pGB9-FP	pDEST-AS2-1 sequencing	AGTGCGACATCATCATCG
pGB9-RP		CGTTTTAAAACCTAAGAGTCAC
pACT2-FP	pDEST-ACT2 sequencing	GATGATGAAGATACCCCAC
pACT2-RP		CAGTTGAAGTGAACTTGC
attbHvMON1i-F	Hv*MON1* RNAi Cloning	AAAAAGCAGGCTACCACCACTTCTAGGTGGCACA
attbHvMON1i-R		AGAAAGCTGGGTCGGCAAGCATATGGGTGAAAA
qRT-VIGS-Mi-F1	qRT-PCR for Hv*MON1* RNAi	CCGCACAAAACACAATTCAG
qRT-VIGS-Mi-R1		CCCTGATCCACTGGCATACT
HvUBC2-F		GGATCCAGGGCACCTCAC
HvUBC2-R		CGTCCAAGCTTTTTGAGGAC
Bgh-GPD-F	*Blumeria hordei* quantification	TGGCAATGCGTGTTCCTACT
Bgh-GPD-R		CATTTCCGGCGGCAATCTTT
qPCR-HvM-F		TTCTGATGAGGCAATTGGTG
qPCR-HvM-R		TTCTTATGGGCAAGGCAAAC
BS10	VIGS vector sequencing	GGTGCTTGATGCTTTGGATAAGG
BS32		TGGTCTTCCCTTGGGGGAC
At3g21215-RBD-F	*Golovinomyces orontii* quantification	GAATCCACCCATACCACCAG
At3g21215-RBD-R		GAGGAGGAGGATGGTGATGA
GoATPase1-F		TCGCCGCTATATTTGGAGTC
GoATPase1-R		CTGGGTCAGATGGTTCACCT
mon1-mutant-LP	mon1 mutant	CGGTTTGCCTGAGTTACTCAG
mon1-mutant-RP		AAAAGCCCAACAATATGGGTC
DS5-3	*mon1-2* (No-0)	TACCTCGGGTTCGAAATCGAT
LBb1.3	*mon1-1* (Col-0)	ATTTTGCCGATTTCGGAAC
eds1-F760	*eds1-2* mutant	ACACAAGGGTGATGCGAGACA
eds1-R1458		GGCTTGTATTCATCTTCTATCC
eds1-R2333		GTGGAAACCAAATTTGACATTAG
ndr1-F3129	*ndr1-1* mutant	GGTTGTGAAATCAAGAATTAATGTGGA
ndr1-F4443		TTGCCTAATGGATCGGCTG
ndr1-R4928		GTTCCTTGATTTGAAACCCAACA

Supplementary Table S2. Gateway destination vectors used in this work.

Name	Information	Reference
pDEST-ACT2-GW	Yeast two-hybrid	Robertson. 2004
pDEST-AS2-GW		
pB4GWnG	BiFC	Kamigaki et al. 2016
pB4GWcCG		
pB4nGGW		
pB4cCGGW		
p35S-mCherry-GW	Protoplast transformation and particle bombardment	Kwaaitaal et al. 2010
pUbi-GW-YFP		
pUbi-GW-nos		
pIPKTA30N-GW		Nowara et al. 2010
pCaBS-γ-GW	VIGS	pCaBS-γ (Yuan et al. 2011) were adapted to Gateway compatible
pUBN10-GFP-GW	Arabidopsis overexpression	Grefen et al. 2010

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Supplementary Table S3. Overview of *Hv*MON1/CSEP0162 bifluorescence complementation (BiFC) results.

Combination	Fluorescence signal
*Hv*MON1-nGFP + CSEP0162-cCFP	No
*Hv*MON1-nGFP + cCFP-CSEP0162	No
nGFP-*Hv*MON1 + cCFP-CSEP0162	No
nGFP-*Hv*MON1 + CSEP0162-cCFP	Yes
*Hv*MON1-cCFP + CSEP0162-nGFP	No
*Hv*MON1-cCFP + nGFP-CSEP0162	No
cCFP-*Hv*MON1 + nGFP-CSEP0162	No
cCFP-*Hv*MON1 + CSEP0162-nGFP	No