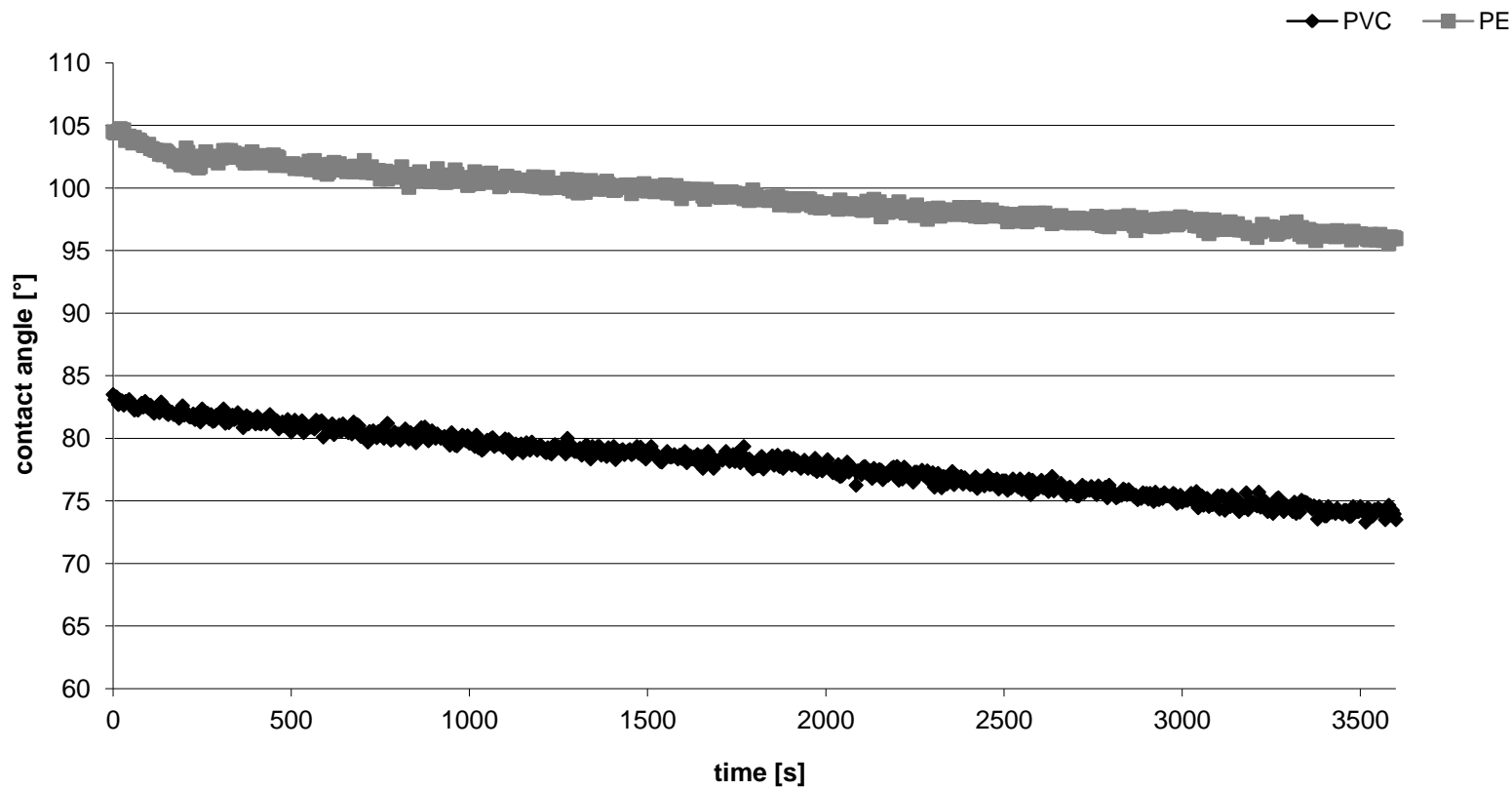


Supplementary Table 1. Primers used in this study

#	Primer name	Sequence (5'-3')
1	ep11amdSProm_Fw	TATCGATACCGTCGACGCTGCTAGCAAGAAGAACT
2	ep11amdSProm_Rv	TACTCAAGACGTCGACAAGCTGAGTAGTAGTGAAGCGAA
3	ep11amdSTerm_Fw	CTCAACCATGGTACCGACCATTATGGAATTGCATCG
4	ep11amdSTerm_Rv	GGGCGAATTGGGTACCACAGTCGTCGATGTAAGT
5	ep11 prom upstream_check	ACATCCTACTCGTACATGCA
6	amdsRV	CCAGAGCTCGTTCATGTAAACAGC
7	ep12HindIII_Fw*	GTACAAGCTTGCTGGCTGTCAACTGCATGTC
8	ep12SalI_Rv*	GTACGTCGACGTATGAGAAGCGTCGAAGAGG
9	ep12SpeI_Fw*	GTACACTAGTCTCCCCAAAGAAATGTTTACC
10	ep12SpeI_Rv*	GTACACTAGTCTTTGCGGCCGTTTCTC
11	ep12 trafo-check_Fw	GCAGCAGTGTGTCTCAGTTGA
12	hphSG_Rv	GCCGTCAACCAAGCTCT
13	ep12 trafo-check_Fw	GCAGCAGTGTGTCTCAGTTGA
14	ep12 trafo check_Rv	TGGGTCACATACATCATTAGC

* Enzyme restriction sites in primer sequences are indicated in italics

Suppl. Fig. 1. Time-course of the surface contact angle of an EPL1 solution (0.5 mg/mL) on different surfaces.



Suppl. Fig. 2. Alignment of EPL1 homologues from various filamentous fungi.

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                *           20           *           40           *           60
Trichoderma_atroviride : VSYDTGYDDASRSLTVVSCSDGANGLITRYHWTQTQCOIPRFPYIGGQAVAGWNSPSCGTCWKLT : 65
Trichoderma_asperellum : VSYDTGYDDASRSLTVVSCSDGTNGLITRYHWTQTQCOIPRFPYIGGQAVAGWNSPNCGTCWKLT : 65
Trichoderma_harzianum : VSYDTGYDDASRSLTAVSCSDGTNGLITRYHWTQTQCOIPRFPYIGGQAVAGWNSPNCGTCWKLT : 65
Trichoderma_reesei : VSYDTGYDDGSRSLTAVSCSDGPNGLITRYHWTQTQCOIPKFPYIGGAAAVAGWNSAACGTCWKLS : 65
Trichoderma_virens : VSYDTGYDNGSRSLNDVSCSDGPNGLITRYHWTSTQCOIPRFPYIGGAAAVAGWNSASCGTCWKLQ : 65
Trichoderma_viride : VSYDTGYDDGSRSLNVVSCSDGPNGLITRYHWTSTQCOIPRFPYIGGQAVAGWNSASCGTCWKLS : 65
Aspergillus_fumigatus : VSYDPRYDNGATSMNDVSCSNGVNGLVTK--WPTFGSVPGFARIGGAPTIPGWNSPNCCKKQKQLQ : 63
Aspergillus_niger : VSYDTAYDVSASLTVVSCSDGANGLITKNG--YSNFESLPGFPIKIGGAPTIAAGWNSPNCCKKCALT : 64
Beauveria_bassiana : VSYDTGYDDGSRSLTKVACSDGDNGLITRYHWTQSQSOTIPRFPYIGGQAAIGWNSPACGSCWKVE : 65
Botryotinia_fuckeliana : VSYDTGYDDASRSLAVVSCSDGSNGLITKG--YTTQCSLKNFPIGGAQAVAGWNSPNCCKKCALT : 64
Chaetomium_thermophilum : VSYDTGYDDATRSLAAVACSDGTNGVMWYKYNKVKQCDVKNFPIGGSSEAIGWNSPNCGTCWAAAT : 65
Coccidioides_inimmitis : LSYDTHYDDPSLPLSVTCSGDNGMLITKG--YNTACEIPNYPHVGGAFVTETWNSPNCCKKQKVT : 64
Coccidioides_posadasii : LSYDTHYDDPSLPLSVTCSGDNGMLITKG--YNTACEIPNYPHVGGAFVTETWNSPNCCKKQKVT : 64
Cochliobolus_lunatus : VSYDTGYDDASRSMNVVSCSDGANGLAARF--PTQCNLPSFPIRIGGYQGIAGWNSPQCGQCFSLT : 63
Colletotrichum_higginsianum : VSYDTGYDDGARSLTAVSCSDGANGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPSCGTCWOLT : 65
Fusarium_oxysporum : VSYDPCYDGSASLTVVSCSDGANGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPNCCKKCALT : 65
Gibberella_zeae : VSYDPCYDGEAGRAMTAVSCSDGTNGLITRYGWTQNOQGVARFPYIGGQAAIAGWNSPSCGTCWKLT : 65
Laccaria_bicolor : VSYDTKYDDGSTSLAVVACSDGTNGLITKG--HTTFESLPGFPIYIGGSFAIAGYNSPDCGTCWELT : 64
Leptosphaeria_maculans : VSYDTGYDDPNRSMGVVSCSDGPNGLMHRF--PTQCAIPNFRIRIGGLSGIA--WNSAQCGSCHKIT : 62
Magnaporthe_oryzae : VSYDTGYDDGSRSLTAVSCSDGANGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPQCGTCWOLT : 65
Metarhizium_anisopliae : VSWDSGYDRADRSLTEVSCSDGKTMMPKY--QKQCDLPNFPINIGGADAIAGWNSPNCCKKCALD : 63
Nectria_haematococca : VSYDPCYDQSRSLTAVVACSDGKNGLITRYGWTQNOQGVARFPYIGGQAAIAGWNSASCGTCWKLT : 65
Neurospora_crassa : VSYDTGYDDPNRSLTAVVSCSDGSNGLITKYHWNFQNOVKNFYIGGVEAVAGWNSPNCCTCWSVT : 65
Phaeosphaeria_nodorum : VSYDQGYDDGSRSLTAVSCSDGANGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPQCGTCWELT : 65
Podospora_anserina : VSYDTGYDDPNRSLTAVVACSDGPNGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPNCCTCWSAT : 65
Pyrenophora_tritici-repentis : VSYDTGYDDASRSLNVVSCSDGPNGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPNCCTCWSAT : 65
Sclerotinia_sclerotiorum : VSYDTGYDDASRSLDVVSCSDGSNGLITKG--HSTQCSLKNFPIGGAQAVAGWNSPNCCKKCALD : 64
Serpula_lacrymans : VSYDTSYDNGAASLTVVACSDGVTGLTEG--YTTFSSLPDFYIGGAPAITGWDSPSCGTCWELN : 64
Sordaria_macrospora : VSYDTGYDDPNRSLTAVVSCSDGANGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPNCCTCWSVT : 65
Taiwanofungus_camphoratus : VTYDPPFDNPNNSLSYVACSDGTNGLITKG--YTTLSLPDFYIGGAYAIAGWNSPSCGTCWELT : 64
Thielavia_terrestris : VSYDTGYDDPSRPLTAVVACSDGTNGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPNCCTCWSAT : 65
Trametes_versicolor : VSYDQAYDNGSSSLTAVVACSDGANGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPQCGTCWKLT : 64
Verticillium_dahliae : VSYDKGYDDGSRSLTAVVSCSDGANGLITRYGWTQNOQGVARFPYIGGQAVAGWNSPNCCTCWEELS : 65
Ceratocystis_platani : LSYDPIY--AADLSMGSVACNSGDHGLMAQY--PTLCEVWGEFNVGGIPDIAGWDSPPSCGTCWKVT : 62

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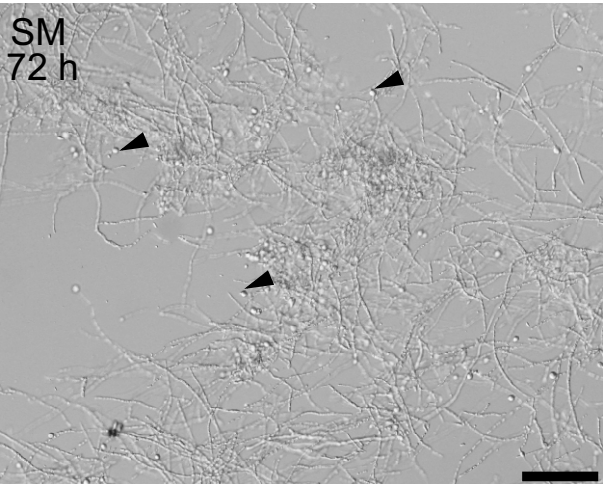
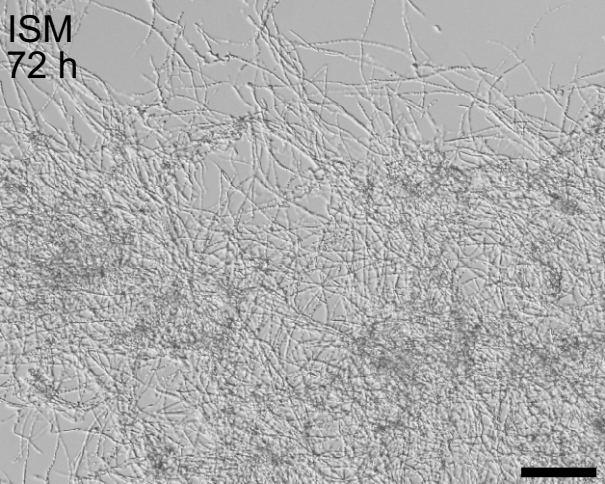
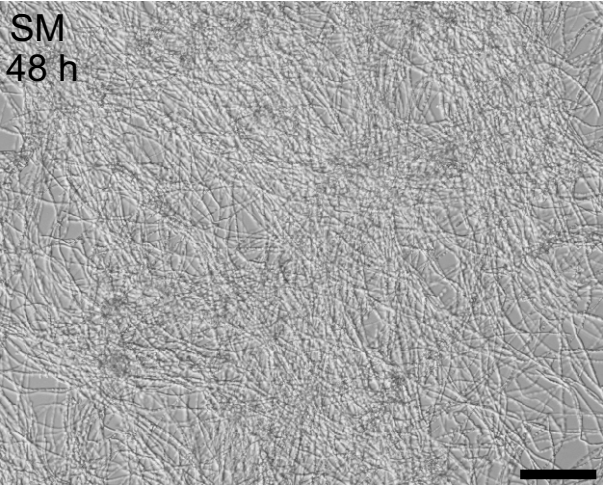
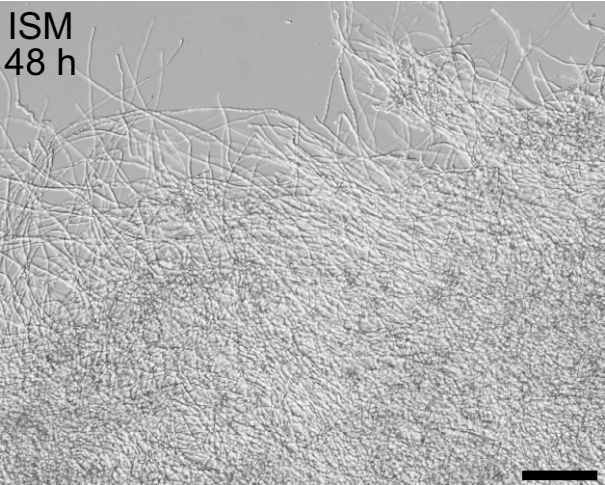
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Trichoderma_atroviride : YS-----GKTIYVLAVDHSAAGFNIGLIDAMNALTNGNAVQYGRVDAT-ASQVAVSNCGL--- : 118
Trichoderma_asperellum : YS-----GKTIYVLAIDHTAAGFNIGLIDAMNALTNGNAVALGRVSAT-ASQVAVSNCGL--- : 118
Trichoderma_harzianum : YS-----GKTIYVLAIDHAGAGFNIGLIDAMNALTNGNAVALGRVSAT-ASQVAVSNCGL--- : 118
Trichoderma_reesei : YS-----GHTIYVLAIDHAAAGFNIALDAMNALTGGQAVQLGRVDAT-ATQVAVSNCGL--- : 118
Trichoderma_virens : YS-----GHTIYVLAVDHAAAGFNIALDAMNALTGGQAVQLGRVSAT-ATQVPVKNCGL--- : 118
Trichoderma_viride : YS-----GHTIYVLAVDHAAAGFNIALDAMNALTGGQAVQLGRVTAT-ASQVAVKNCGL--- : 118
Aspergillus_fumigatus : YE-----QNTIYVTAIDAAPGFNIATSAAMDQLTNGMAVELGRVQAT-YEEADPSHCASG-- : 117
Aspergillus_niger : YN-----GQTVNIIAIDHSNSGFNIALEAMNLTNNQAVQLGRVQAT-YEEADPSHCASG-- : 116
Beauveria_bassiana : YK-----GRSVTVLAIDRAVSGLNIGLHALNDLTGGRGVEVGRIEAQ-VTQVDVGGQCGL--- : 118
Botryotinia_fuckeliana : YG-----GRSINVLAIDHAGAGFNIGLIDAMNALTGGQAAALGRIDAS-YAQQVDSKACGL--- : 117
Chaetomium_thermophilum : YN-----GRTIHLAIDHAAAGLNIGLIDAMNALTNNKAVELGRVDAH-YVQVPLSNCGL--- : 118
Coccidioides_inimmitis : YN-----AKTIFLTAIDHSNSGFNIAKKSMDVLTNGRAEELGRIKVT-YEEVASSLCGLK-- : 118
Coccidioides_posadasii : YN-----AKTIFLTAIDHSNSGFNIAKKSMDVLTNGRAEELGRIKVT-YEEVASSLCGLK-- : 118
Cochliobolus_lunatus : YN-----GNSIYVLAIDHAGAGFNIAQAAMNQLTNGQAAALGRIDAQ-YAQQVDRSNCGL--- : 116
Colletotrichum_higginsianum : YN-----GKSINVLAVDHAGSGFNIALGALNDLTNGQAVQLGRVQAT-ATQVGLNACGL--- : 118
Fusarium_oxysporum : YK-----GKSINVLAIDHTAAGFNISPAAMNALTNNQAVKLGVDAT-ATQVAVSNCGL--- : 119
Gibberella_zeae : YK-----GKSINVLAIDHTAAGFNISPAAMNALTNNQAVQLGRVDAT-ATQVAVSNCGLKK-- : 120
Laccaria_bicolor : YNNGAGVVKSINVLAIDVAKPFGNIGLVAMNLTGGQAVHLEGRVQAT-VKQVNASICGLK-- : 123
Leptosphaeria_maculans : YN-----GKSIFVVAIDSSSTGFNIGLITAMNLTNNQAVQLGRVQAT-VTQVAVSNCGL--- : 115
Magnaporthe_oryzae : YN-----GKSINVLAIDHAGAGFNISPAAMNALTNNQAVKLGVDAT-ATQVAVSNCGL--- : 117
Metarhizium_anisopliae : YD-----GMSIKVLAIDHAGSGFNIGQAMNALTNGRAVEFGQVDAT-ATRLTPQDCGL--- : 116
Nectria_haematococca : YK-----GKSINVLAIDHTAAGFNIALTAMNALTNNQAVKLGVDAT-ATQVAVSNCGL--- : 119
Neurospora_crassa : YN-----GKTINILAIDHAGAVNLSKKAMNLTGGNAEQFGRVDAQ-VQVVALSACGL--- : 118
Phaeosphaeria_nodorum : YN-----GNTIYVLAVDHAGDGNIAKQAMQDQLTNGQAVQLGRVQAT-ATQVAVSNCGL--- : 118
Podospora_anserina : WN-----GNTIYVLAIDHTGSGLNIGLGRMDALTNGHGQELGRVDAV-VAQVPISRCGL--- : 118
Pyrenophora_tritici-repentis : YN-----GKTIYVLAIDHTAAGFNIAKAGAMDELTTNNQAVSLGRIDAQ-YSQVAVSNCGL--- : 118
Sclerotinia_sclerotiorum : YA-----GRSINVLAIDHAAAGFNIGQAMNALTGGQAVQLGRVQAT-ATQVAVSNCGL--- : 117
Serpula_lacrymans : YSAGS--INETYVLAIDVGGDGFNIGLITAMNLTNNQAVQLGRVQAT-ATQVAVSNCGL--- : 121
Sordaria_macrospora : YK-----GKTINILAIDHAGAGINMSKKAMNLTGGNAEQFGRVDAQ-VKQVVALKACGL--- : 118
Taiwanofungus_camphoratus : YN-----NVSINILGIDT--AAGFNIALTAMNLTNNQAVQLGRVQAT-ATQVAVSNCGL--- : 116
Thielavia_terrestris : YN-----GRTIHLAIDHAAAGLNIGLITAMNLTNGHAEELGRVDAH-VQVPLSTCGL--- : 118
Trametes_versicolor : FN-----GKSINVLAVDHTDAGFNIALGAMNLTNGQAVQLGRIDAQ-ATQVAVSNCGL--- : 117
Verticillium_dahliae : YN-----GRTINVLAIDHSANGFNIALDAMNALTGGQAVKLGVDAS-SKQVNSKCGL--- : 118
Ceratocystis_platani : IPN----GNSIFIRGVDSSRGGFNINVTAFATKLVG--STEAQGRVDNVNYVQVPLSNCGINGAN : 118

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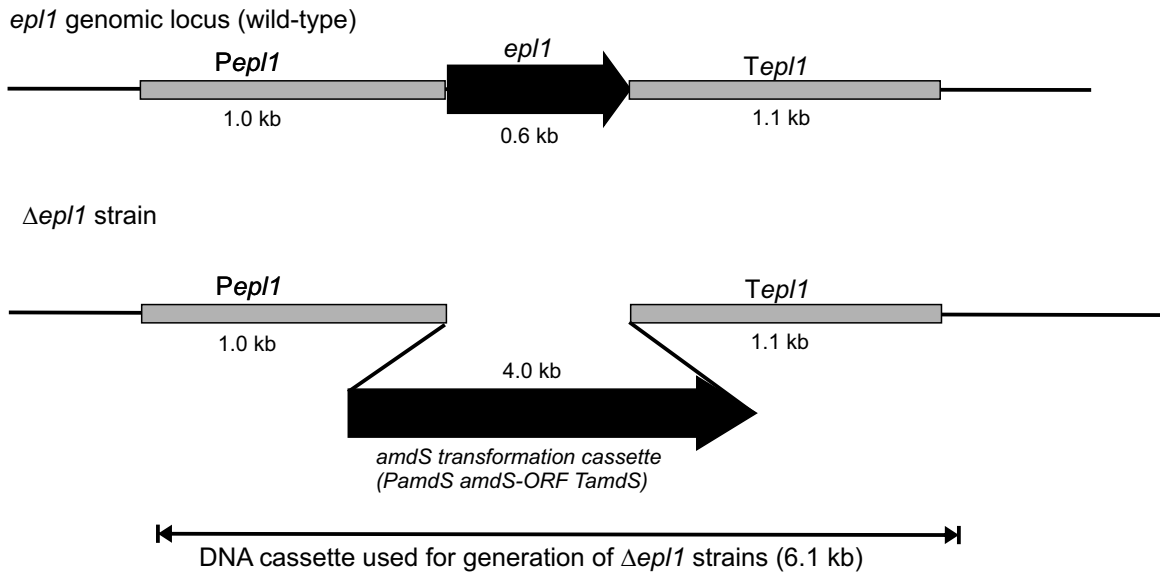
Suppl. Fig. 3. Microscopic analysis of hyphal growth and chlamydospore formation in *T. atroviride*. Arrows indicate examples for chlamydospores. Scale bars = 100 μ m.

T. atroviride WT

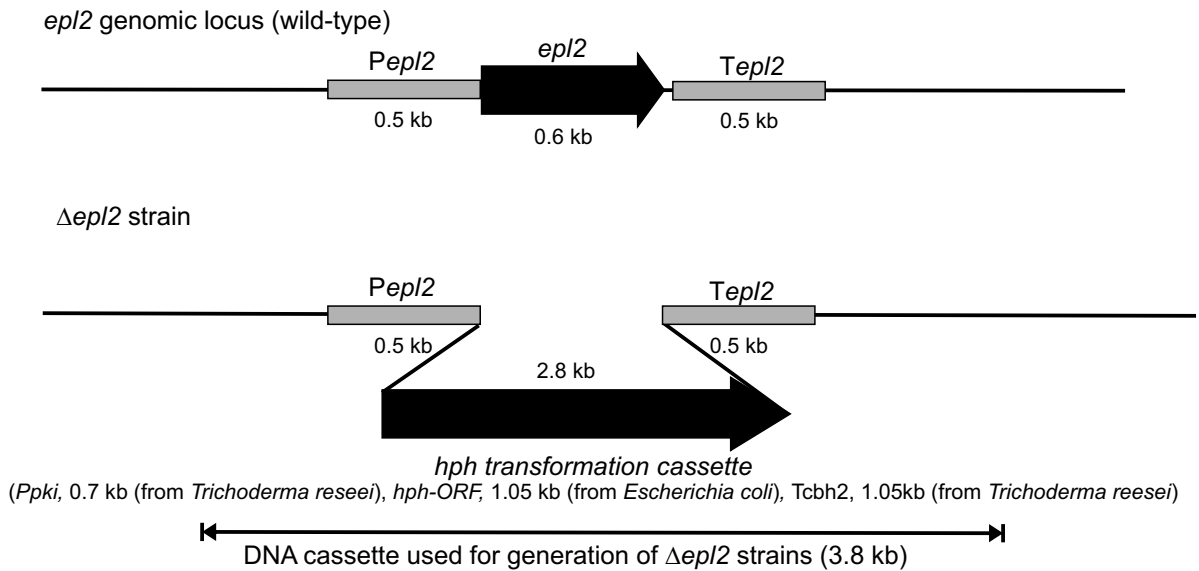


Suppl. Fig. 4. Genomic locus maps for the generation of (a) $\Delta epl1$, (b) $\Delta epl2$ and (a + b) $\Delta epl1\Delta epl2$ strains.

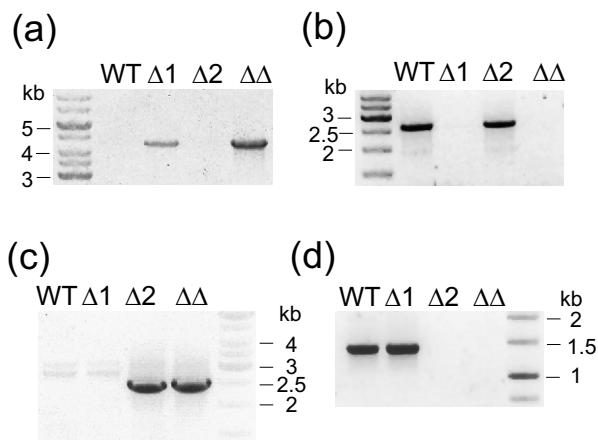
(a)



(b)

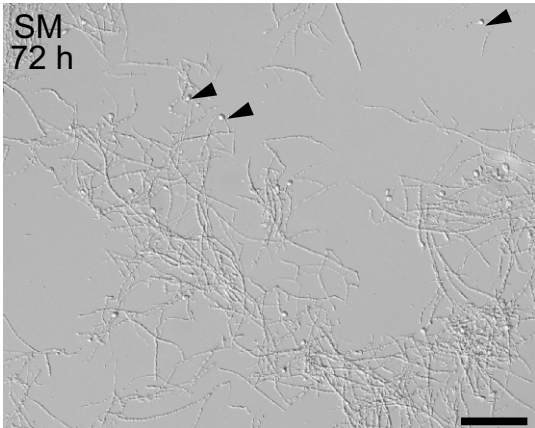
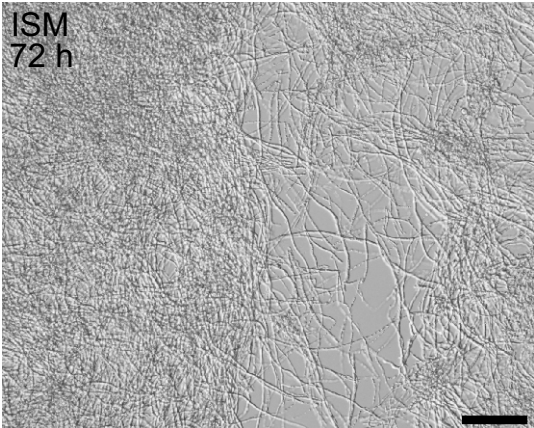
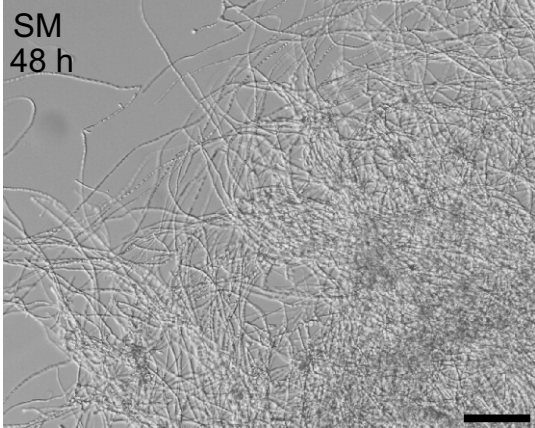
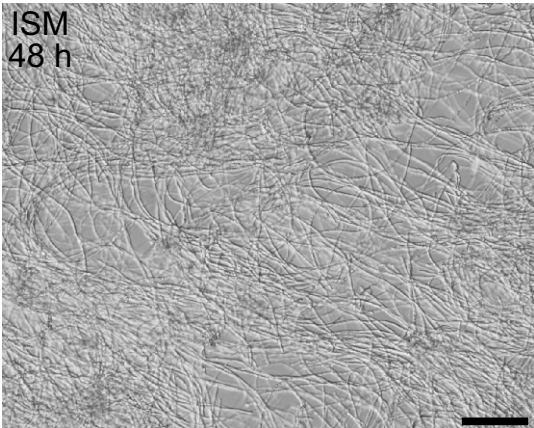


Suppl. Fig. 5. Identification and verification of *epl1* and *epl2* single and double knockout strains. (a) Identification of *epl1* knockout strains using the primers 5/6 (Suppl. Table 1), yielding a PCR product with the size of 4.4 kb. (b) After purification, *epl1* knockout strains were further verified for the absence of the wild-type gene using the primers 1/4, yielding a 2.6 kb band for the wild-type locus. (c) For the *epl2* knockout locus fungal transformants were verified by PCR with the primers 11/12, yielding a 2.5 kb band. (d) Absence of the *epl2* gene was further verified with the primers 13/14, yielding a 1.5 kb band for the *epl2* wild-type locus.

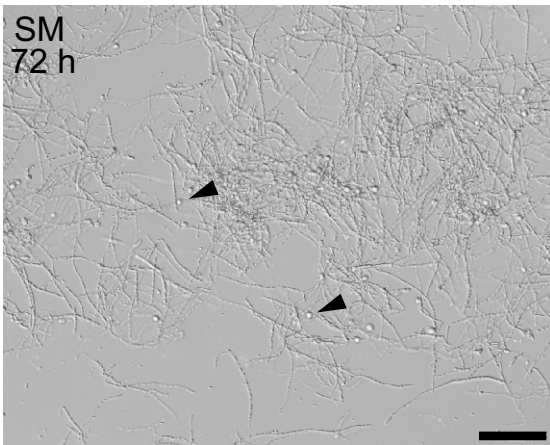
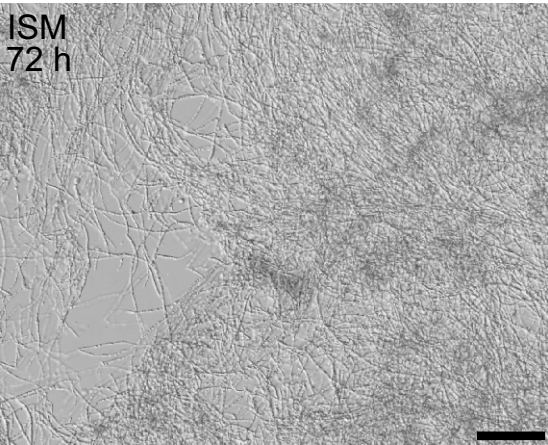
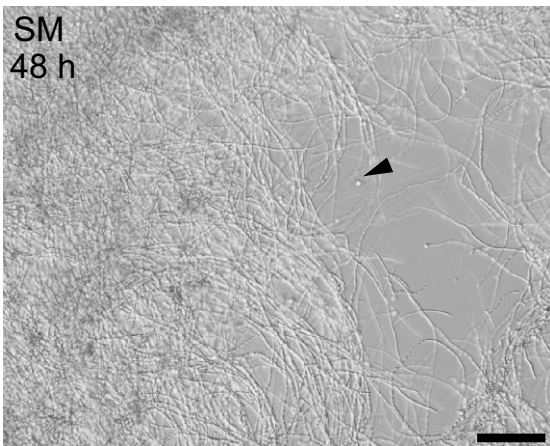
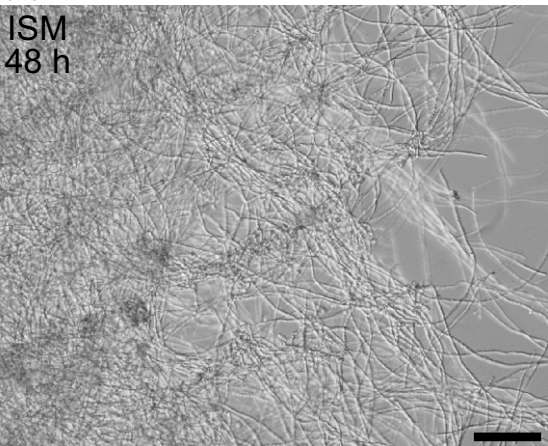


Suppl. Fig. 7 a-c. Microscopic analysis of hyphal growth and chlamydospore formation of (a) $\Delta epl1$ and (b) $\Delta epl2$ and (c) double knockout strains. Arrows indicate examples for chlamydospores. Scale bars = 100 μm .

(a) *T. atroviride* $\Delta epl1$



(b) *T. atroviride* $\Delta epl2$



(c) *T. atroviride* $\Delta epl1\Delta epl2$

