

Additional information

Enhanced extracellular production of laccase in *Coprinopsis cinerea* by silencing chitinase gene

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SUPPORTING INFORMATION

Table S1 Primers used in this study

Primer	Sequence (5'-3')
<i>lcc5</i> -F	CTCCCATCTACACACAACAAGCTTATCGCCAT GTCGTTTGCTTGGAAGCATTGGC
<i>lcc5</i> -R	CACTGGCCCTCTGGTCAACTATAATATTATTTA GGGATACATAGGGAGCAAGTTCGAA
anti <i>ChiEn1</i> -F	CTCCCATCTACACACAACAAGCTTATCGC CTGAGCTTCCCTCCCGTAGGATCTTG
anti <i>ChiEn1</i> -R	CACTGGCCCTCTGGTCAACTATAATATTAT AGTACCAGCGGAACCTGACTCGGA
anti <i>ChiE2</i> -F	CTCCCATCTACACACAACAAGCTTATCGC CTCGGCAGTGGGTACGGCAAACG
anti <i>ChiE2</i> -R	CACTGGCCCTCTGGTCAACTATAATATTAT TCTATGGTTATTTCTCTCCTTTGCGCTG
qRT- <i>β-actin</i> -F	CTCTGGAGTTATGGTAGGAATGGGC
qRT- <i>β-actin</i> -R	GATGCCATGTTCGATGGGGTACTTG
qRT- <i>ChiE1</i> -F	AGAGGGAGAACGGCGAAGGATGCAA
qRT- <i>ChiE1</i> -R	CAGGTTGGCTTGGTGGTTCGCAGT
qRT- <i>ChiE2</i> -F	TCTTCACCGTTCGCTTCTGTACTGG
qRT- <i>ChiE2</i> -R	TAACTAGAAAGAGCGCTGGCTTCCG
qRT- <i>ChiIII</i> -F	TTGGGTGGTCGATCGGATATGAGGC
qRT- <i>ChiIII</i> -R	GACTTGGTTGAGGACCTCTCCCAG
qRT- <i>ChiB1</i> -F	ACCGGCAAAGCCAACTTCGCCTACT
qRT- <i>ChiEn1</i> -F	CCTGGGACAAGTATAATGCCATGACGTT
qRT- <i>ChiEn1</i> -R	AGATCCAGTCCATCCACCAAGCGAA
qRT- <i>ChiEn2</i> -F	AGATCCCTTGGGAGAAGTACACCGA

Table S1 (continued)

Primer	Sequence (5'-3')
qRT- <i>ChiEn2</i> -R	AACGGCCGGAGAGAAGTATTGGGAA
qRT- <i>ChiEn3</i> -F	AGGGTAAGCTGGAAGAAGTACACGC
qRT- <i>ChiEn3</i> -R	AGTCCATCCACCAATCGAAATCAAGGC
qRT- <i>ChiEn4</i> -F	TGGTACACTGGCTGGCATTCGAGA
qRT- <i>ChiEn4</i> -R	CAACGTCGAGGAGGGTGTTACAAA

Table S2 Anti*ChiEn1* and anti*ChiE2* fragment sequence information

Fragment	Sequence (5'-3')
anti <i>ChiEn1</i>	TGAGCTTCCCTCCCGTAGGATCTTGCCTCAGCTCTTGCAAAAACGCAA GGAAGTTGGCGGAATCGGCGTTGGAGATGTGGTTACACCCAATGCCTT GTTTATTGGGAAATTCCCAGTCAAAGTCGATACCATCAAGGTTGTACTG CGTAGCCAAATCCACGACGGCCTTGACGAACGCTGTTTCGTCGCTCAGG AGTCGAAACGTGGTCGGAGAAGTAGATAGATCCAGTCCATCCACCAAG CGAAAGTAGGGCTTTCACATTATGCTGCTTAGCCTGTTCCACAAACTTG GGCAACAAAGCCTGACTCTCAGCGTCAAGAGCCAACGGATTAGCCGG ATCCGAAGTCGTCGTCGCAAAAGCAAACGTCATGGCATTATACTTGTC CCAGGACAAACTCTCGGGAGGGTGGGCAGCGGCCTGCCAACTGGGGT ACCAAGCAGTGGCAACCTTTCCCCCAGCATCCAACGATGCCAGGACTT GCGTGGCGTTCAAGCGCACCTCCGAGTCAGGTTCCGCTGGTACT
anti <i>ChiE2</i>	TCGGCAGTGGGTACGGCAAACGCAAAATCGATCCAGTCGTATCTCCCG TAGTCCAGTGATTCAGGGGGGAAGGTGTCCGCTGCCCAATCTGGGTAG TAACCCATGAATAGAGGCAGTGGGTTGCTCGGAGTATCCGTTGCCTGA GCACCAGATCCAGTGATGCTGTCAGATCTTTGAGTGCCGCTGCCAGGA TGAGGAAGAATCTTCAATGAATCTCCCTGAATGACTACTGGCAGATCG GGACGTCCAGGCGCGGTGCTACGCTGATGAGCTGCAGTAAACGTAACT GGTGATAAGGACGTCGACGTCGGTGAATCTAAGCCAGAAGTCGATATG ATGCTTGGAGCTGGAGACGACGACAAAGGATGAAAAGGAGGTTTCGAT ACGGAAGGGTATCTC

Table S3 Reference gene accession number for the chitinase gene

Gene	Accession number
<i>ChiB1</i>	EAU86796.2
<i>ChiE1</i>	EAU80760.2
<i>ChiE2</i>	EAU84887.2
<i>ChiEn1</i>	EAU81461.1
<i>ChiEn2</i>	EAU81455.1
<i>ChiEn3</i>	EAU84319.1
<i>ChiEn4</i>	EAU91084.2
<i>ChiIII</i>	EAU93428.2

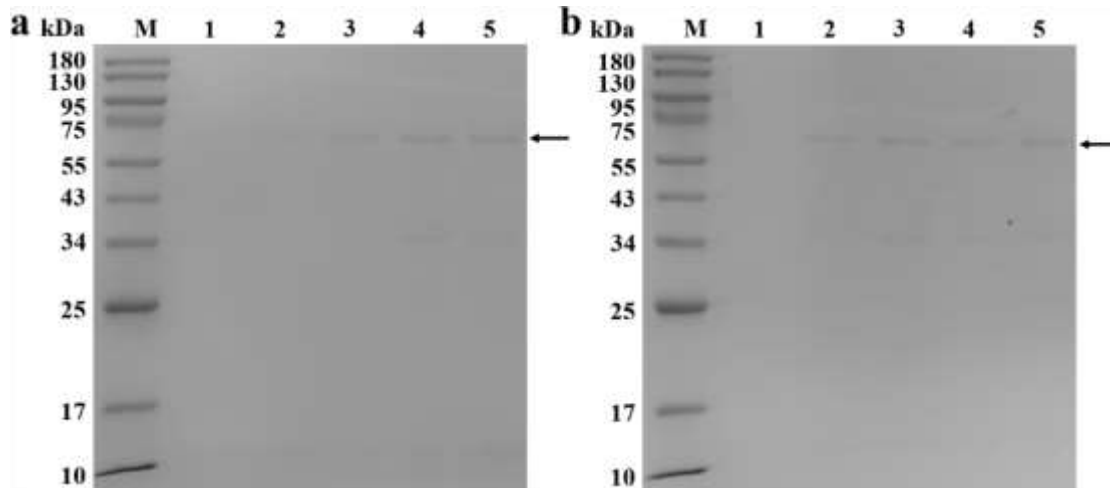


Fig. S1 SDS-PAGE analysis of *C. cinerea* fermentation supernatants

(a) SDS-PAGE analysis of *Cclcc5*-13 fermentation supernatants. (b) SDS-PAGE analysis of *Cclcc5*-anti*ChiE2* fermentation supernatants. Lane M: protein molecular weight standard. Lanes 1-5: supernatant samples at 1, 2, 3, 4, and 5 d, respectively. The arrow indicates the band corresponding to Lcc5 (~ 57.5 kDa).

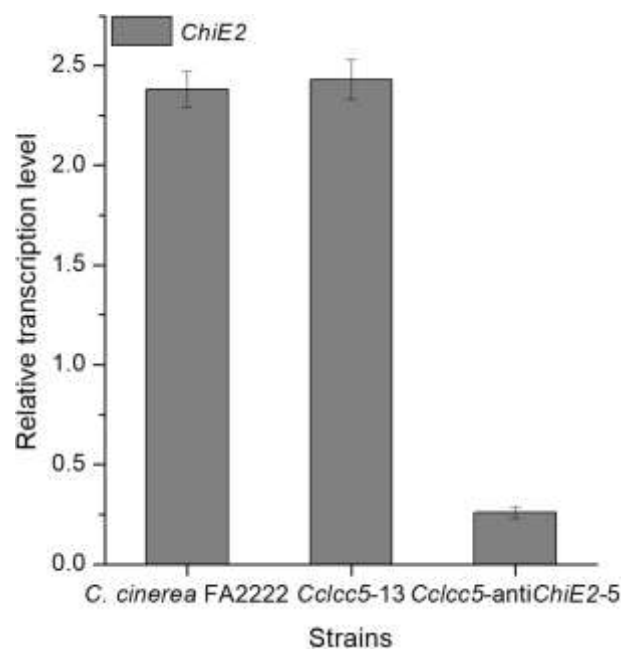


Fig. S2 Chitinase gene transcript level in *C. cinerea*

Error bars represent the standard deviation.