Characterization of a cellobiohydrolase (MoCel6A) in *Magnaporthe oryzae*

Takahashi et al., Supplementary Materials

Content:

Figure Legends

Fig. S1. Rice leaves infected with *M. oryzae*. Rice leaves were sprayed with a suspension of *M. oryzae* spores and harvested 1-5 days after inoculation. The leaves were used to prepare cDNA by reverse-transcription.

Fig. S2. Preparation of recombinant proteins prepared in *M. oryzae* and *A. oryzae.*

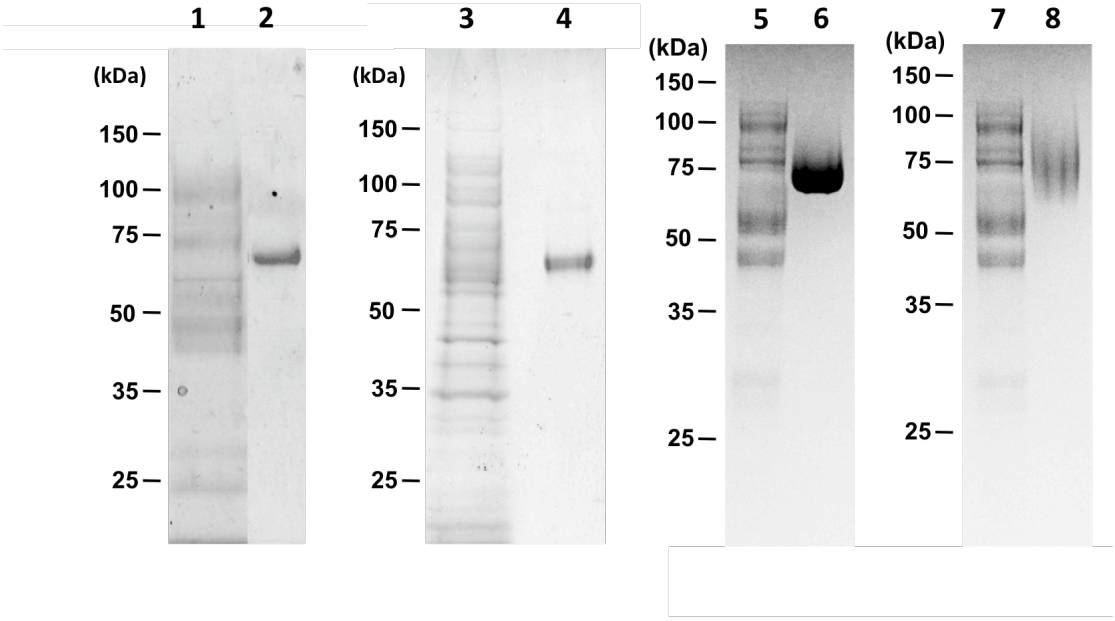
M. oryzae and *A. oryzae* transformants overexpressing either MoCel6A, MoCel7A or TrCel6A were cultured in YG (0.5% yeast extract and 2% glucose) medium for 4 days at 25 ˚C with gentle rotation at 120 rpm. Culture medium was desalted, concentrated and applied to a His-binding resin, and then bound protein was eluted with elution buffer (50 mM sodium phosphate, pH 7.0, 50 mM NaCl, 200 mM imidazol). Crude and eluted fractions were electrophoresed on an

SDS-acrylamide gel and then stained with Coomassie Brilliant Blue R-250. Lanes 1, 3, 5 and 7, 5 μg of the crude fraction; lane 2, 1 μg of the eluted MoCel6A expressed in *M. oryzae*; lane 4, 1 μg of the eluted MoCel7A expressed in *M. oryzae*; lane 6, 5 μg of the eluted MoCel6A expressed in *A. oryzae*; lane 8, 5 μg of the eluted TrCel6A expressed in *A. oryzae.*

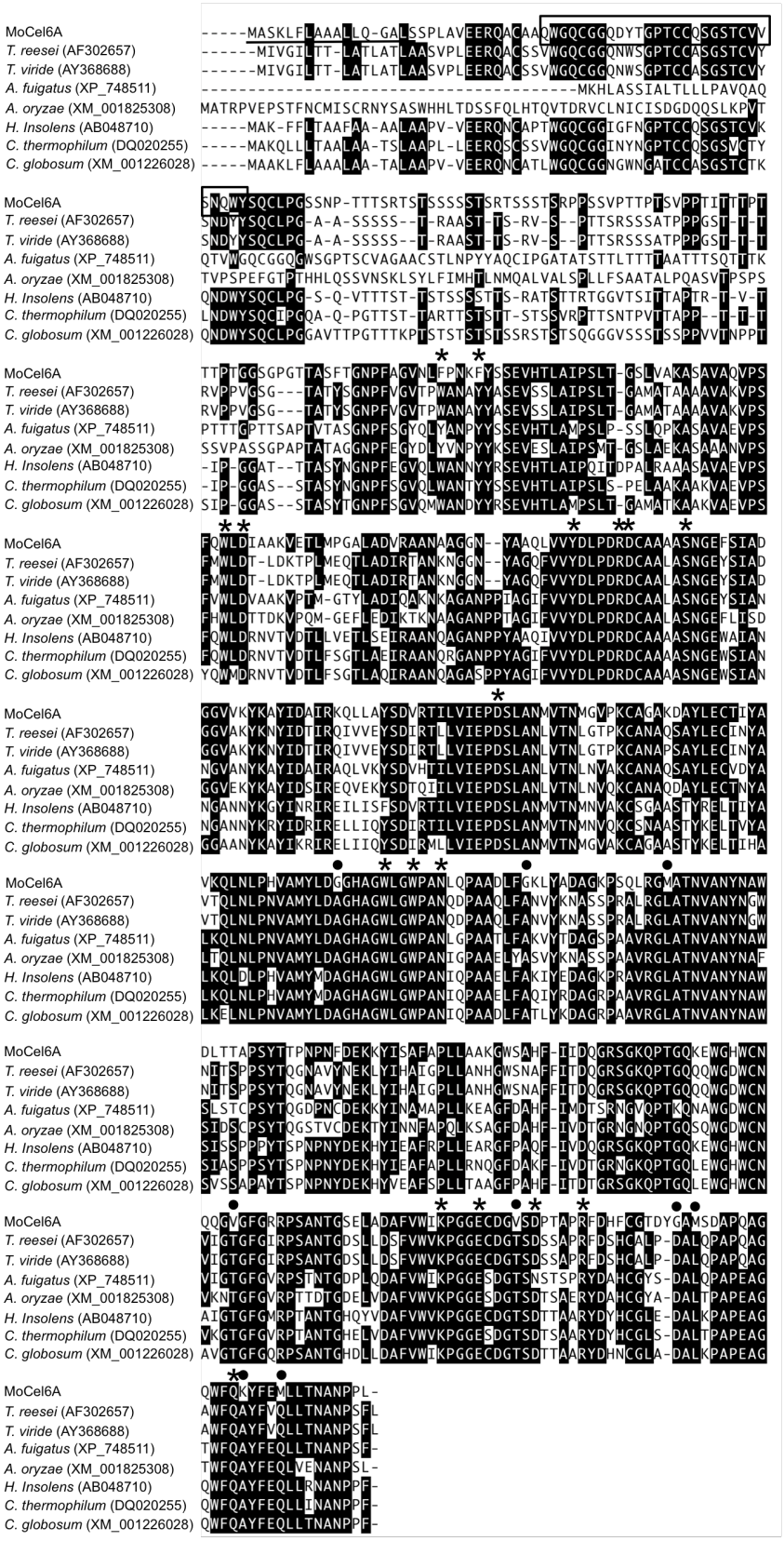
Fig. S3. Amino acid alignment of fungal GH-6 family cellobiohydrolases. Amino acid sequences of cellobiohydrolases from *M. oryzae* (MoCel6A, MoCel6B and MoCel6C), *T. reesei* (AF302657), *T. viride* (AY368688), *A.fumigatus* (XP_748511), *A. oryzae* (XM_001825308), *H. insolens* (AB048710), *C. thermophilum* (DQ020255) and *C. globosum* (XM_001226028) were aligned using Clustal W and standard conditions. A putative secretion signal sequence is underlined and a putative cellulose binding domain is in a box. Asterisks represent highly conserved amino acids that are proposed to be associated with substrate binding according to the previous reports (41-43). Closed circles represent highly conserved amino acids in fungal cellobiohydrolases that are absent in MoCel6A.

40 Fig. S1

41 Fig. S2



42 Fig. S3


MoCel6A
T. reesei (AF302657)
T. viride (AY368688)
A. fuigatus (XP_748511)
A. oryzae (XM_001825308)
H. Insolens (AB048710)
C. thermophilum (DQ020255)
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