Genomic and transcriptomic survey of an endophytic fungus *Calcarisporium arbuscula* NRRL 3705 and potential overview of its secondary metabolites Jin-Tao Cheng^{1,2}, Fei Cao^{1,2}, Xin-Ai Chen^{1,2}, Yong-Quan Li^{1,2}*, Xu-Ming Mao^{1,2}*

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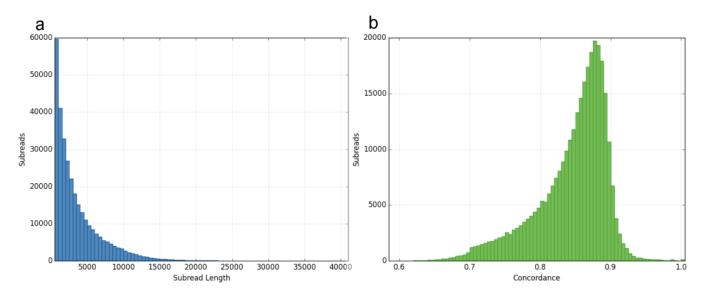


Fig. S1 Statistics analysis for subread of C. arbuscula clean data

a Sequencing read length of clean data. The left vertical and the right vertical represent the Subread length, number of Subread at specified length.

b Mass distribution of clean data. The abscissa indicates the quality of the sequencing, the column bar corresponds to the left ordinate, and the left ordinate indicates the number of reads corresponding to the sequencing quality.

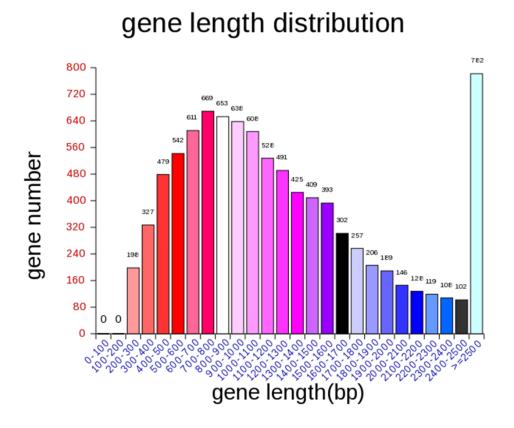


Fig. S2 Statistics analysis for gene length distribution of C. arbuscula clean data

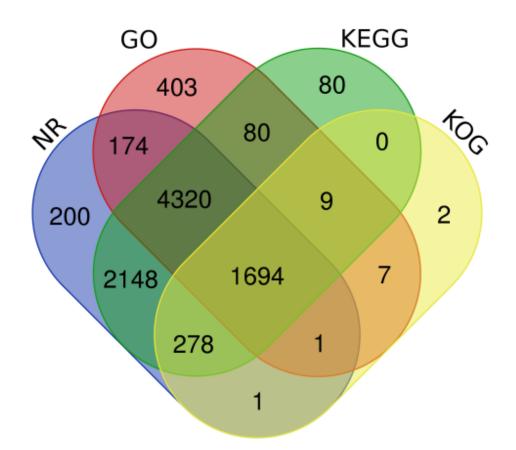
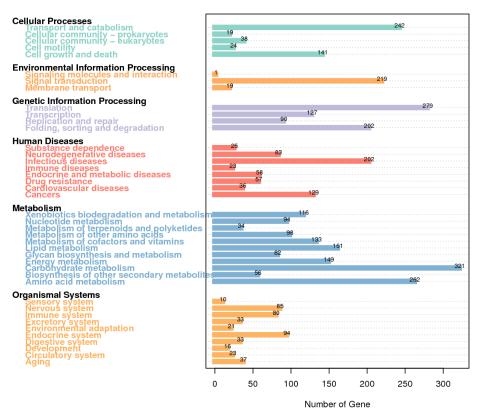


Fig. S3 Venn-plot distribution of coding genes by four databases.



KEGG pathway annotation

Fig. S4 Histogram of KEGG distribution of predicted proteins of C. arbuscula

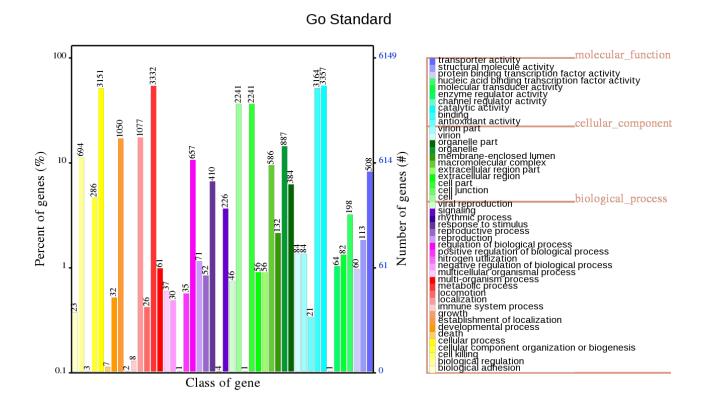


Fig. S5 Histogram of GO distribution of predicted proteins of C. arbuscula

KOG function classification

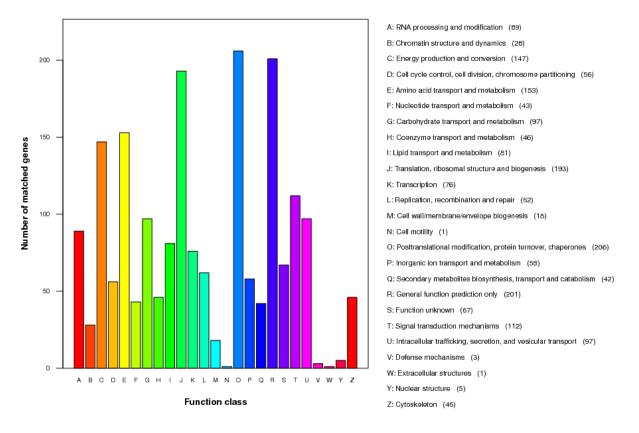


Fig. S6 Histogram of KOG distribution of predicted proteins of C. arbuscula

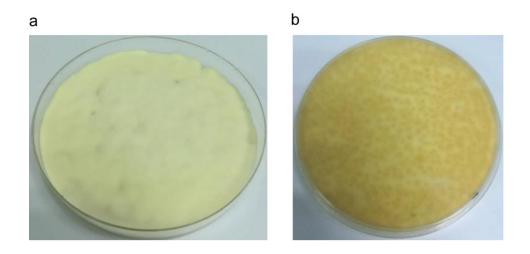


Fig. S7 Sporulated mycelium of *C. arbuscula* on PDA plate after 5-day-culture at 25 ℃.

a Spore mycelium of *C. arbuscula* on PDA plate after 5-day-culture at 25 $\,^{\circ}$ C from the front of the plate.

b Spore mycelium of *C. arbuscula* on PDA plate after 5-day-culture at 25 $\,^{\circ}$ C from the reverse side of the plate.

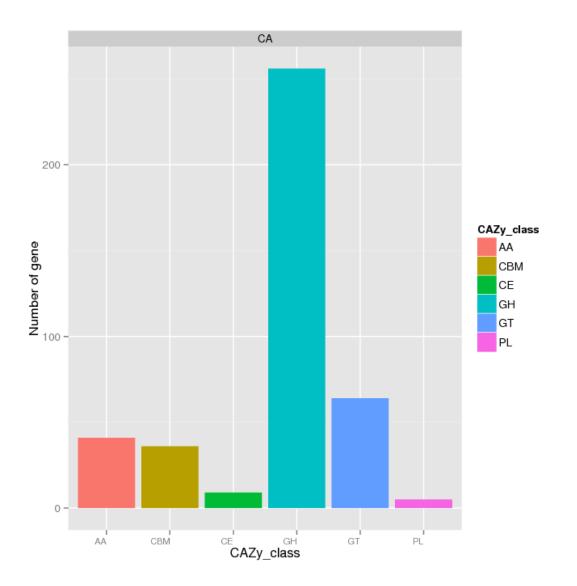


Fig. S8 Histogram of CAZymes distribution of predicted proteins of C. arbuscula

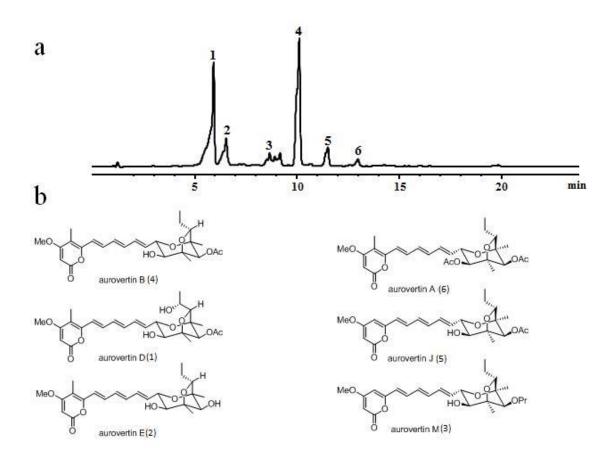


Fig. S9 HPLC analysis of aurovertins from metabolites of *C. arbuscula*.

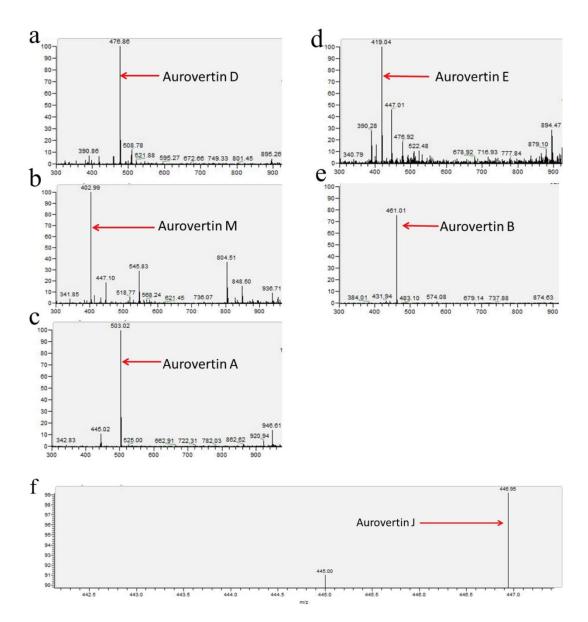


Fig. S10 LC-MS analysis of aurovertins in positive ion mode from metabolites of

C. arbuscula.

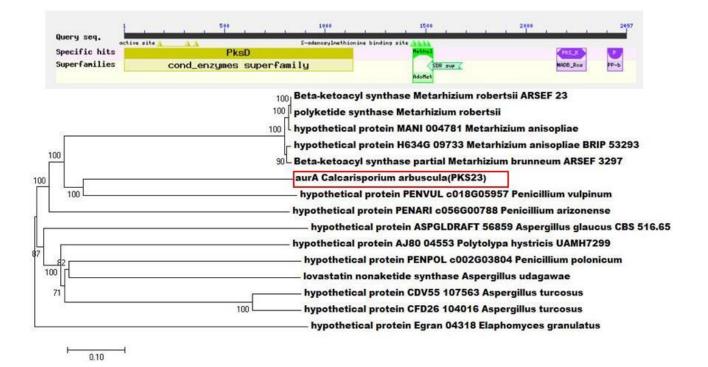


Fig. S11. Conserved domain (CD-Search) and Distance tree results obtained fromNCBI BlastP analysis of predicted PKS of *C. arbuscula* NRRL 3705 putatively involved in aurovertin biosynthesis (Neighbour-Joining, maximum distance >0.5; grisham mode) Comparison between conserved domains of *C. arbuscula* NRRL 3705 SM Cluster 23 (PKS23) prediction and other known fungal genome assemblies– representation obtained with AntiSMASH software.