

**Title: Identification and developmental expression profiling of the putative alkaloid biosynthetic genes in *Corydalis yanhusuo* bulbs**

Dengqun Liao<sup>1#</sup>, Pengfei Wang<sup>1,2#</sup>, Chan Jia<sup>1</sup>, Peng Sun<sup>1</sup>, Jianjun Qi<sup>1</sup>, Lili Zhou<sup>1</sup>,  
Xian'en Li<sup>1\*</sup>

<sup>1</sup>Institute of Medicinal Plant Development, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100193, PR China

<sup>2</sup>China Pharmaceutical University, Nanjing 210009, China

\*Corresponding author:

*Xian'en Li*

*Tel.: +86-10-62810019*

*Email: xianenli@yeah.net*

<sup>#</sup>These authors contributed equally to this work.

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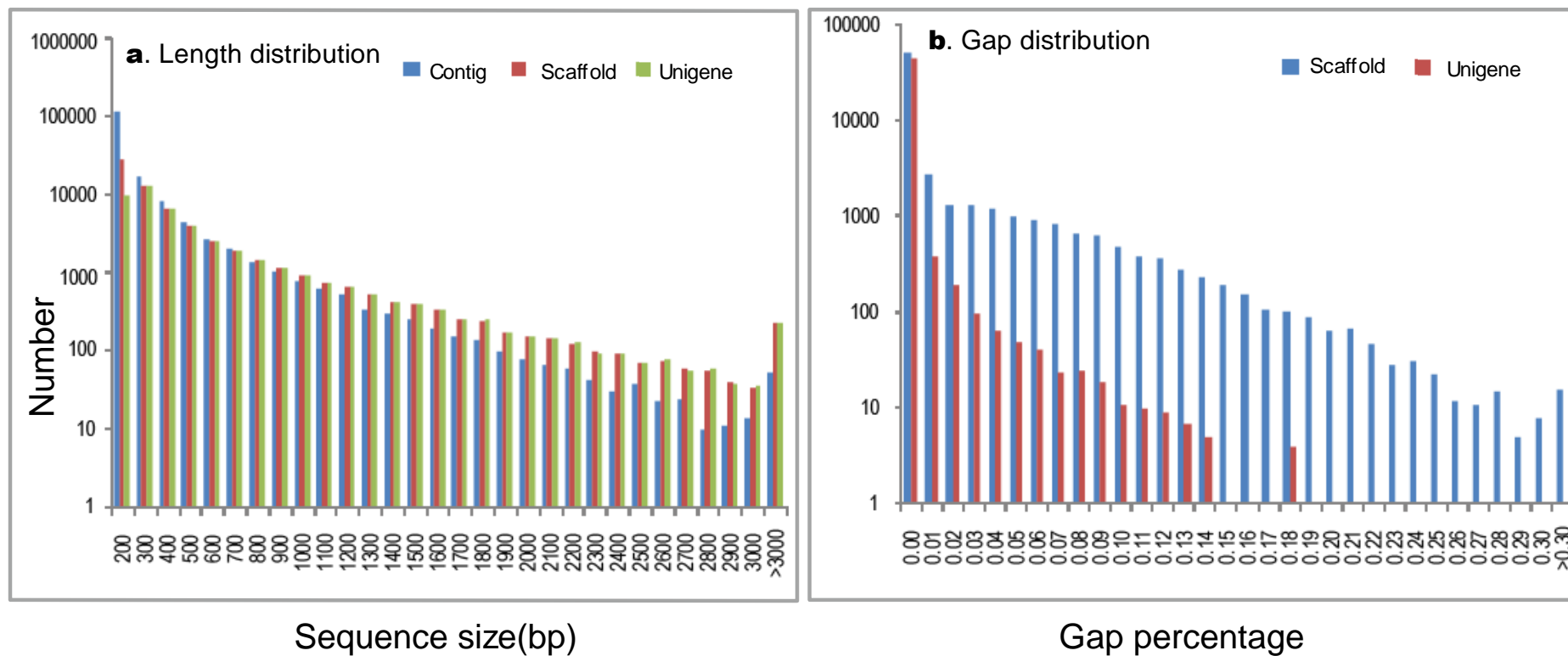
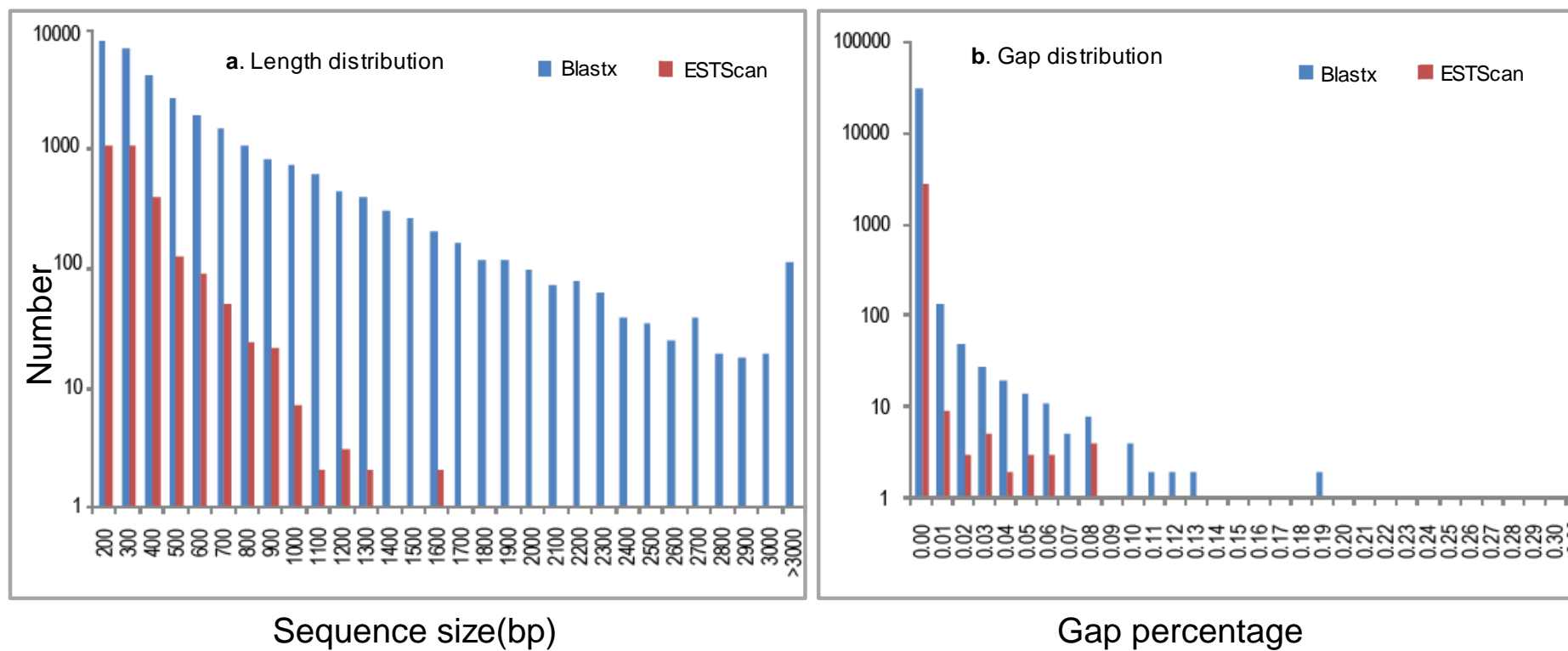
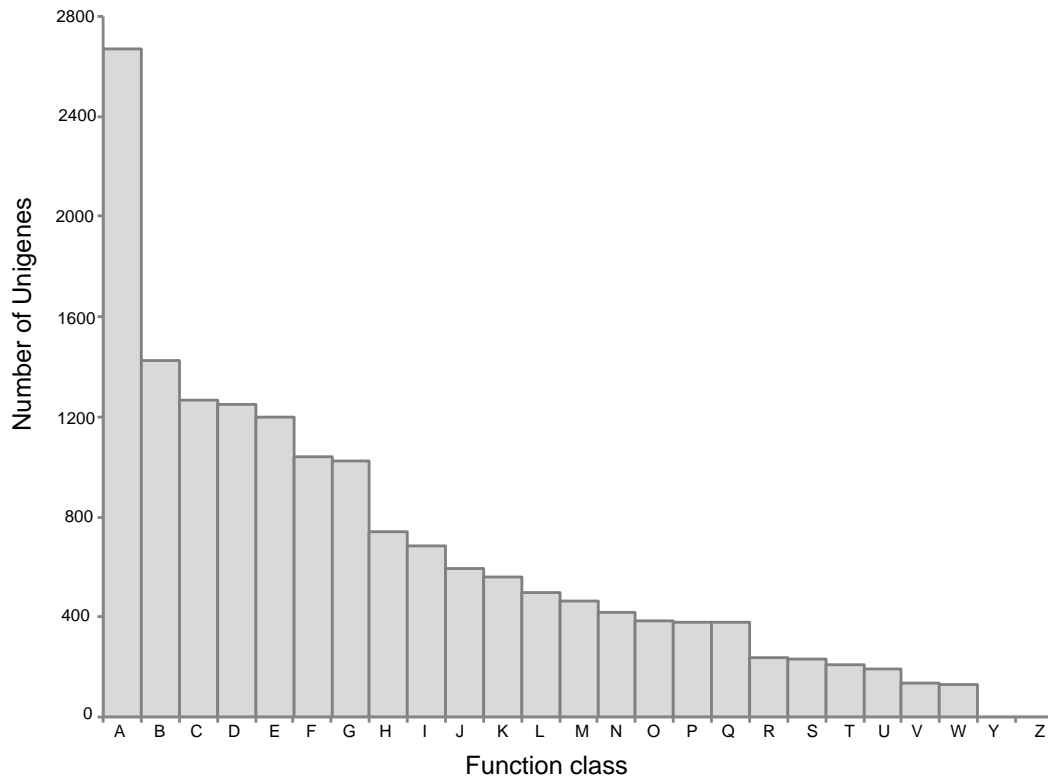


Figure S1 Length and gap distribution of Contigs, Scaffolds and Unigenes assembled from Illumina paired-end reads

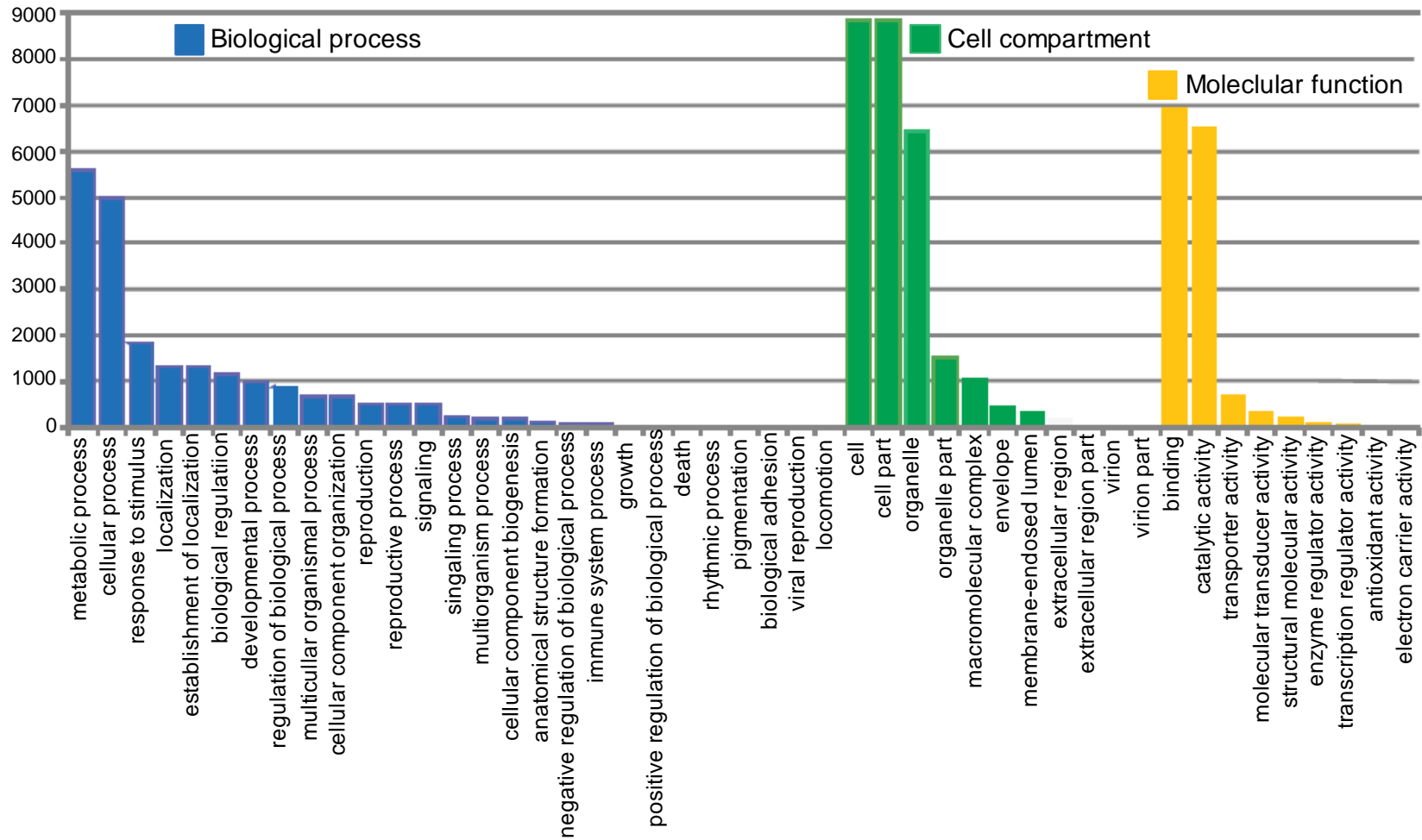


**Figure S2 Length and gap distribution of protein-coding Unigenes predicted by Blastx search and ESTScan**



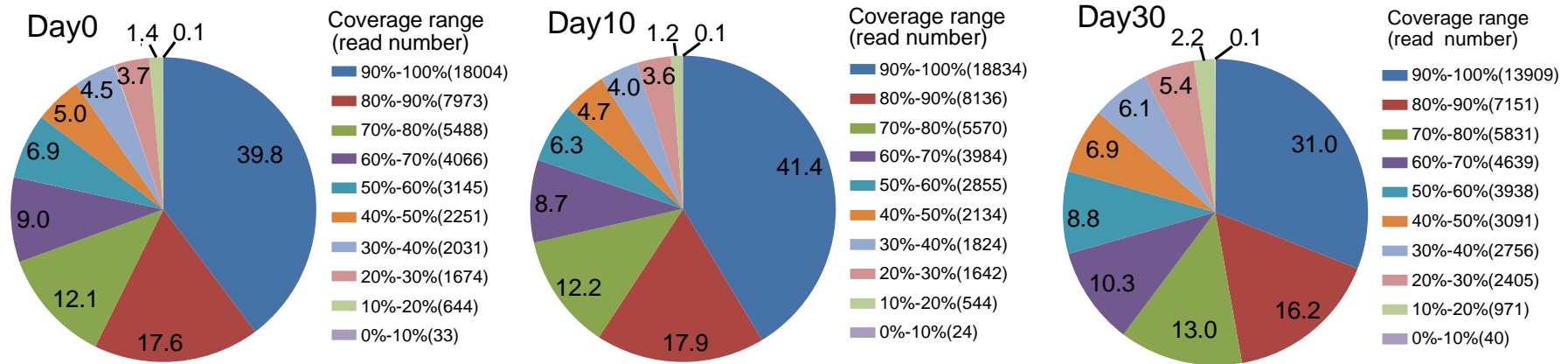
**Figure S3 COG classification of *C. yanhusuo* Unigenes**

A. General function prediction only; B. Transcription; C. Posttranslational modification, protein turnover, chaperones; D. Replication, recombination and repair ; E. Translation, ribosomal structure and biogenesis; F. Carbohydrate transport and metabolism; G. Signal transduction mechanisms; H. Amino acid transport and metabolism; I. Function unknown; J. Cell wall/membrane/envelope biogenesis; K. Energy production and conversion; L. Cell cycle control, cell division, chromosome partitioning; M. Inorganic ion transport and metabolism; N. Secondary metabolites biosynthesis, transport and catabolism; O. Intracellular trafficking, secretion, and vesicular transport; P. Coenzyme transport and metabolism; Q. Lipid transport and metabolism; R. Defense mechanisms; S. Cytoskeleton; T. Chromatin structure and dynamics; U. Nucleotide transport and metabolism; V. Cell motility; W. RNA processing and modification; Y. Extracellular structures; Z. Nuclear structure



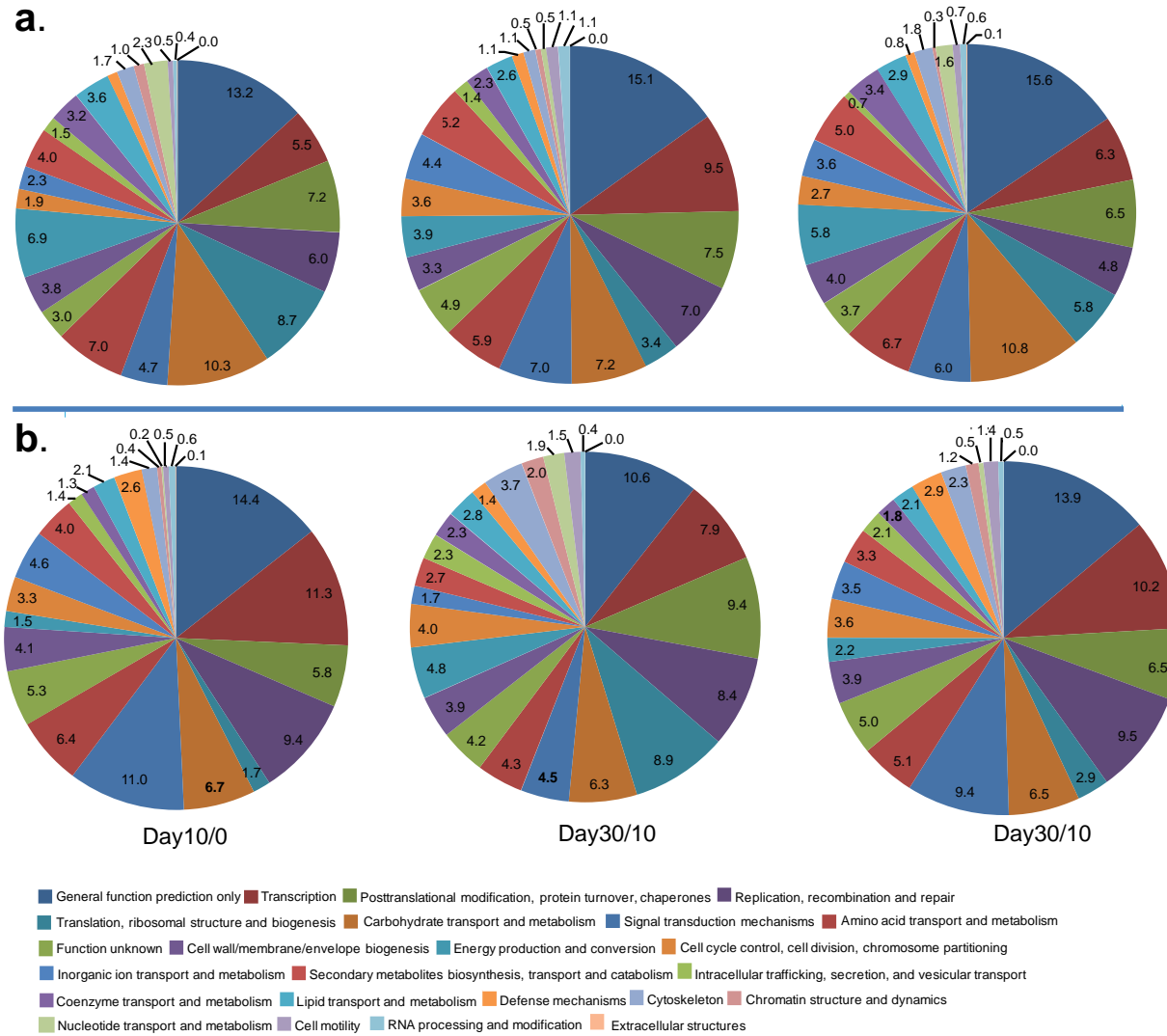
**Figure S4 GO classification of *C. yanhusuo* Unigenes**

X-axis shows Go category at level 2, Y-axis shows Number of Unigenes assigned to each category.



**Figure S5 Distribution of the coverage of the Unigenes in libraries Day0, Day10 and Day30**

The coverage of a Unigene meant the percentage of a Unigene covered by reads in each library and was calculated by the ratio of the base number in a Unigene covered by unique mapping reads to the total bases number of that Unigene.



**FigureS6 COG classification of *C. yanhusuo* Unigenes differentially expressed during the bulb development presented is percentage of up- (a.) and down- (b.) regulated Unigenes in each comparison to individual COG category.**



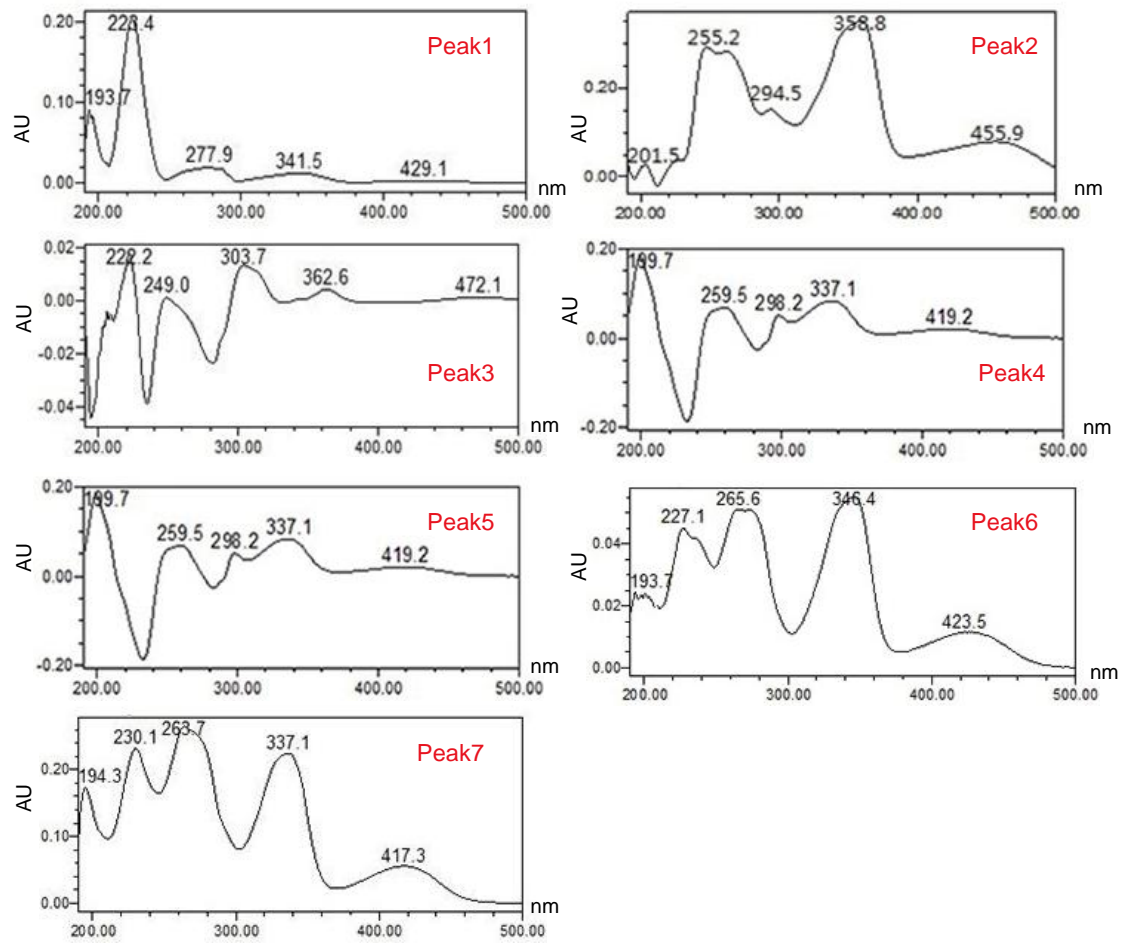


Figure S7 The UV-VIS spectra of *C.yanhusuo* peaks 1-7 detected at 470nm