

Additional file 3: This table summarized the number of unigenes that assigned in COG functional categories.

Code	Functional-Categories	Gene-Number
A	RNA processing and modification	276
B	Chromatin structure and dynamics	277
C	Energy production and conversion	882
D	Cell cycle control, cell division, chromosome partitioning	1908
E	Amino acid transport and metabolism	1217
F	Nucleotide transport and metabolism	334
G	Carbohydrate transport and metabolism	1943
H	Coenzyme transport and metabolism	534
I	Lipid transport and metabolism	839
J	Translation, ribosomal structure and biogenesis	2171
K	Transcription	3691
L	Replication, recombination and repair	3053
M	Cell wall/membrane/envelope biogenesis	1503
N	Cell motility	240
O	Posttranslational modification, protein turnover, chaperones	2614
P	Inorganic ion transport and metabolism	826
Q	Secondary metabolites biosynthesis, transport and catabolism	753
R	General function prediction only	4851
S	Function unknown	1863
T	Signal transduction mechanisms	2630
U	Intracellular trafficking, secretion, and vesicular transport	1018
V	Defense mechanisms	395
W	Extracellular structures	4
Y	Nuclear structure	12
Z	Cytoskeleton	600
Total		34434