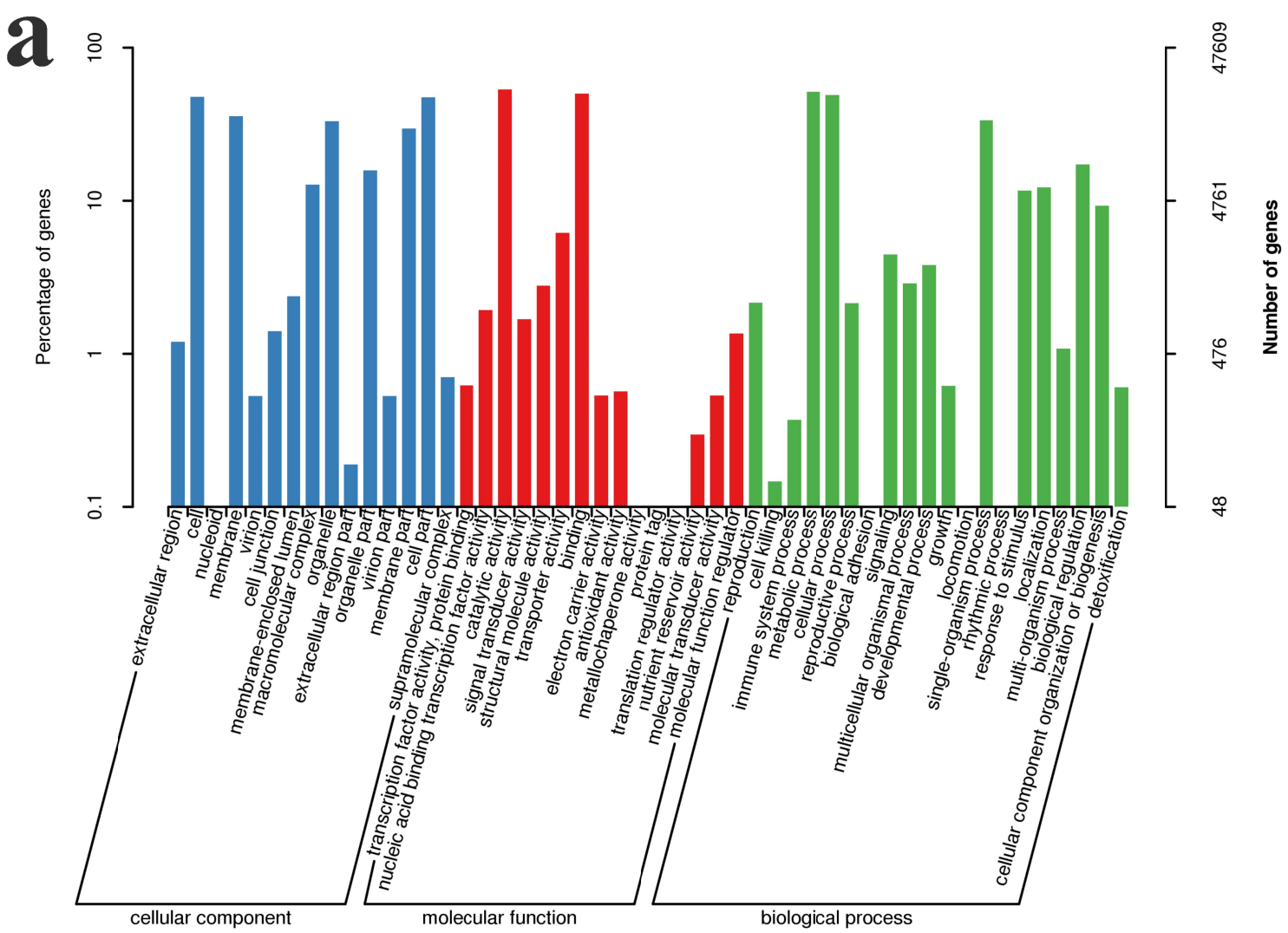
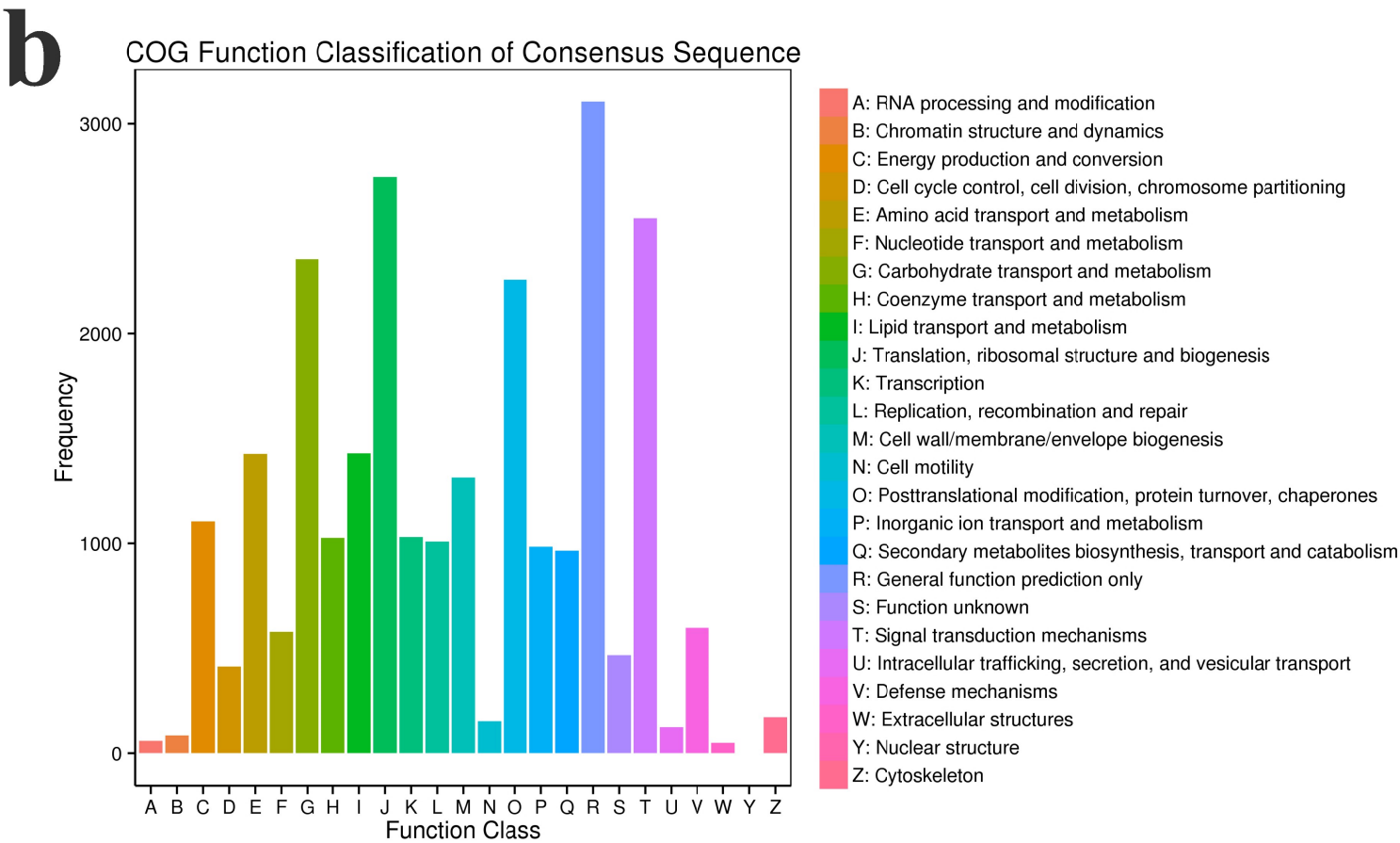

a
Percentage of genes
100
10
1
0.1
Number of genes
47609
4761
476
48
extracellular region
cell
nucleoid
membrane
virion
cell junction
membrane-enclosed lumen
macromolecular complex
extracellular region part
organelle
organelle part
virion part
membrane part
cell part
supramolecular complex
transcription factor activity, protein binding
nucleic acid binding transcription factor activity
catalytic activity
signal transducer activity
structural molecule activity
transporter activity
binding
electron carrier activity
antioxidant activity
metallochaperone activity
protein tag
translation regulator activity
nutrient reservoir activity
molecular transducer activity
molecular function regulator
reproduction
cell killing
immune system process
metabolic process
cellular process
reproductive process
biological adhesion
signaling
multicellular organismal process
developmental process
growth
locomotion
single-organism process
rhythmic process
response to stimulus
localization
multi-organism process
biological regulation
cellular component organization or biogenesis
detoxification
cellular component
molecular function
biological process


b
COG Function Classification of Consensus Sequence
Frequency
3000
2000
1000
0
A B C D E F G H I J K L M N O P Q R S T U V W Y Z
Function Class
A: RNA processing and modification
B: Chromatin structure and dynamics
C: Energy production and conversion
D: Cell cycle control, cell division, chromosome partitioning
E: Amino acid transport and metabolism
F: Nucleotide transport and metabolism
G: Carbohydrate transport and metabolism
H: Coenzyme transport and metabolism
I: Lipid transport and metabolism
J: Translation, ribosomal structure and biogenesis
K: Transcription
L: Replication, recombination and repair
M: Cell wall/membrane/envelope biogenesis
N: Cell motility
O: Posttranslational modification, protein turnover, chaperones
P: Inorganic ion transport and metabolism
Q: Secondary metabolites biosynthesis, transport and catabolism
R: General function prediction only
S: Function unknown
T: Signal transduction mechanisms
U: Intracellular trafficking, secretion, and vesicular transport
V: Defense mechanisms
W: Extracellular structures
Y: Nuclear structure
Z: Cytoskeleton