

**Table S2. The annotation of unrecalled core genes at depth 100×.**

<i>S. enterica</i>	<i>E. coli</i>	<i>L. monocytogens</i>
Anaerobic dimethyl sulfoxide reductase chain B	Cellulose biosynthesis protein BcsG	IS3 family transposase ISLmo1
Anaerobic dimethyl sulfoxide reductase chain C	Cysteine--tRNA ligase	hypothetical protein
Biotin carboxylase	D-serine dehydratase	Internalin A
Glycine betaine uptake system ATP-binding protein YehX hypothetical protein	DNA translocase FtsK Heat shock protein HslJ	Iron-sulfur cluster carrier protein
Multidrug resistance protein MdtB	HTH-type transcriptional regulator CueR	
Multidrug resistance protein MdtC	Multidrug efflux pump subunit AcrB	
Oxaloacetate decarboxylase beta chain	Small toxic polypeptide LdrD	
putative cyclic di-GMP phosphodiesterase PdeC Ribonuclease G	tRNA (guanosine(18)-2'-O)-methyltransferase	
Ribosomal protein L11 methyltransferase		
tRNA (cytidine(34)-2'-O)-methyltransferase		