

Table S2: Short Read Assemblers parameter setting.

Assembler	<i>S. aureus</i>	<i>H. acininychis</i>	<i>E. coli</i>
ABYSS	k=23	k=27	k=31 n=5
Edena	m=21	m=27	m=30
EULER-SR	k=21	k=27	k=28 CloneLength=215 CloneVar=40
SOAPdenovo	k =21	k=27	k=25 -R
SSAKE	default	default	m=17 o=4 r=0.7 t=1
SUTTA	k=21 $W_{mp}=150$ $W_{de}=10$ $W_{bb}=140$	k=27 $W_{mp}=150$ $W_{de}=30$ $W_{bb}=140$	k=29 $W_{mp}=150$ $W_{de}=20$ $W_{bb}=140$
Taipan	k=19 T=8	k=27 T=18	k=29 T=10
Velvet	k =21 cov_cutoff=7	k=27 cov_cutoff=8	k=29 ins_length=215 cov_cutoff=12 -exp_cov=24

NOTE: Long-read Assemblers have been ran with their default parameters.