**Supplementary Table S1. Genetic properties of reference strain genomes**

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| --- | --- | --- | --- |
| Strain | Genome size (Mb) | GC% | Replicons |
| Typhi str. CT18 | 5.13371 | 51.88 | chromosome:NC\_003198.1/AL513382.1plasmid pHCM1:NC\_003384.1/AL513383.1 plasmid pHCM2:NC\_003385.1/AL513384.1 |
| Typhi str. Ty2 | 4.79196 | 52.1 | chromosome:NC\_004631.1/AE014613.1 |
| Paratyphi A str. AKU\_12601 | 4.5818 | 52.2 | chromosome:NC\_011147.1/FM200053.1 |
| Paratyphi B str. SPB7 | 4.85889 | 52.1 | chromosome:NC\_010102.1/CP000886.1 |
| Paratyphi C str. RKS4594 | 4.88849 | 52.21 | chromosome:NC\_012125.1/CP000857.1 plasmid pSPCV:NC\_012124.1/CP000858.1 |
| Choleraesuis str. SC-B67 | 4.944 | 52.17 | chromosome:NC\_006905.1/AE017220.1 plasmid pSC138:NC\_006856.1/AY509004.1plasmid pSCV50:NC\_006855.1/AY509003.1 |
| Enteritidis str. P125109 | 4.68585 | 52.2 | chromosome:NC\_011294.1/AM933172.1 |
| Gallinarum str. 287/91 | 4.6587 | 52.2 | chromosome:NC\_011274.1/AM933173.1 |
| Newport str. SL254 | 5.00772 | 52.21 | chromosome:NC\_011080.1/CP001113.1 plasmid pSL254\_3:NC\_011079.1/CP001112.1plasmid pSN254:NC\_009140.1/CP000604.1 |
| Heidelberg str. 41578 | 4.95148 | 52.12 | chromosome: NC\_021810.1/CP004086.1plasmid pSEEH1578\_01:NC\_021811.1/CP004087.1plasmid pSEEH1578\_02:NC\_021841.1/CP004088.1plasmid pSEEH1578\_03:NC\_021869.1/CP004857.1 |
| Schwarzengrund str. CVM19633 | 4.82389 | 52.24 | chromosome:NC\_011094.1/CP001127.1 plasmid pCVM19633\_110:NC\_011092.1/CP001125.1plasmid pCVM19633\_4:NC\_011093.1/CP001126.1 |
| Agona str. SL483 | 4.83664 | 52.01 | chromosome:NC\_011149.1/CP001138.1 plasmid unnamed:NC\_011148.1/CP001137.1 |
| Dublin str. CT\_02021853 | 4.91746 | 52.15 | chromosome:NC\_011205.1/CP001144.1plasmid pCT02021853\_74:NC\_011204.1/CP001143.1 |
| Typhimurium str. 14028S | 4.9641 | 52.22 | chromosome:NC\_016856.1/CP001363.1 plasmid unnamed:NC\_016855.1/CP001362.1 |
| Typhimurium str. LT2 | 4.95142 | 52.22 | chromosome:NC\_003197.2/AE006468.2plasmid pSLT:NC\_003277.2/AE006471.2 |
| Tennessee str. TXSC\_TXSC08-19  | 4.86441 | 52.20 | chromosome:NZ\_CP007505.1/CP007505.1 |