

Supporting information for Dalrymple *et al.* (2001) *Proc. Natl. Acad. Sci. USA* **98** (20), 11627–11632. (10.1073/pnas.191384398)

Table 4. Sources of sequences used in the derivation of the consensus sequence

PolC	<i>Thermotoga maritima</i> (gi:4981093), <i>Desulfitobacterium hafniense</i> , <i>Clostridium difficile</i> , <i>Bacillus halodurans</i> (gi:10175038), <i>Bacillus stearothermophilus</i> , <i>Bacillus subtilis</i> (gi:2634030), <i>Staphylococcus aureus</i> (gi:616644), <i>Staphylococcus epidermidis</i> , <i>Bacillus anthracis</i> , <i>Enterococcus faecalis</i> , <i>Lactococcus lactis</i> , <i>Streptococcus equi</i> , <i>Streptococcus pyogenes</i> , <i>Streptococcus thermophilus</i> , <i>Streptococcus mutans</i> , <i>Streptococcus pneumoniae</i> , <i>Ureaplasma urealyticum</i> (gi:6899360), <i>Mycoplasma pneumoniae</i> (gi:1673778), <i>Mycoplasma genitalium</i> (gi:3844641), <i>Mycoplasma pulmonis</i> (gi:1352299), <i>Clostridium acetobutylicum</i> , <i>Carboxydotherrmus hydrogenoformans</i> .
PolB	<i>Chlorobium tepidum</i> , <i>Anabaena</i> sp., <i>Burkholderia cepacia</i> , <i>Ralstonia eutropha</i> , <i>Pseudomonas aeruginosa</i> (gi:9947877), <i>Pseudomonas putida</i> , <i>Pseudomonas syringae</i> , <i>Pseudomonas fluorescens</i> , <i>Shewanella putrefaciens</i> , <i>Vibrio cholerae</i> (gi:9655692), <i>Escherichia coli</i> (gi:1786246), <i>Salmonella typhimurium</i> , <i>Klebsiella pneumoniae</i> , <i>Yersinia pestis</i> , <i>Geobacter sulfurreducens</i> .
DnaE1	<i>Aquifex aeolicus</i> (gi: 2983510), <i>Thermotoga maritima</i> (gi:4980970), <i>Thermus aquaticus</i> (gi:5531686), <i>Deinococcus radiodurans</i> (gi: 6458195), <i>Porphyromonas gingivalis</i> , <i>Cytophaga hutchinsonii</i> , <i>Chlorobium tepidum</i> , <i>Chlamydophila pneumoniae</i> (gi: 4376966), <i>Chlamydia trachomatis</i> (gi: 3328984), <i>Nostoc punctiforme</i> , <i>Synechocystis</i> sp. (gi:1653960), <i>Prochlorococcus marinus</i> , <i>Treponema pallidum</i> (gi:3322971), <i>Treponema denticola</i> , <i>Borrelia burgdorferi</i> (gi:2688500), <i>Magnetospirillum magnetotacticum</i> , <i>Rhodopseudomonas palustris</i> , <i>Caulobacter crescentus</i> , <i>Rhodobacter sphaeroides</i> ,

	<p><i>Rhodobacter capsulatus</i>, <i>Rickettsia prowazekii</i> (gi:3861305), <i>Rickettsia helvetica</i> (gi:5912334), <i>Nitrosomonas europaea</i>, <i>Neisseria meningitidis</i> (gi:7227081), <i>Bordetella pertusis</i>, <i>Burkholderia cepacia</i>, <i>Ralstonia eutropha</i>, <i>Acidithiobacillus ferrooxidans</i>, <i>Xylella fastidiosa</i> (gi:9105008), <i>Legionella pneumophila</i> (2), <i>Pseudomonas aeruginosa</i> (gi: 9949800), <i>Pseudomonas fluorescens</i> (gi:5531684), <i>Pseudomonas putida</i>, <i>Pseudomonas syringae</i>, <i>Shewanella putrefaciens</i>, <i>Vibrio cholerae</i> (gi:1706494), <i>Pasteurella multocida</i>, <i>Haemophilus influenzae</i> (gi:1573746), <i>Haemophilus ducreyi</i>, <i>Actinobacillus actinomycetemcomitans</i>, <i>Buchnera</i> sp. APS (gi:10038918), <i>Escherichia coli</i> (gi:1786381), <i>Salmonella typhimurium</i> (gi:154271), <i>Yersinia pestis</i>, <i>Desulfovibrio vulgaris</i>, <i>Geobacter sulfurreducens</i>, <i>Helicobacter pylori</i> 26695 (gi: 2314638), <i>Campylobacter jejuni</i> (gi:6968175), <i>Streptomyces coelicolor</i> (gi:4324655), <i>Saccharopolyspora erythraea</i> (gi:461952), <i>Thermomonospora fusca</i>, <i>Mycobacterium tuberculosis</i>, (gi:1403495), <i>Mycobacterium leprae</i> (gi:4539136), <i>Mycobacterium avium</i>, <i>Clostridium difficile</i>, <i>Dehalococcoides ethogenes</i>, <i>Bacillus halodurans</i> (gi:10175791), <i>Bacillus subtilis</i> (gi:2635388), <i>Staphylococcus aureus</i>, <i>Staphylococcus epidermidis</i>, <i>Bacillus anthracis</i>, <i>Enterococcus faecium</i>, <i>Enterococcus faecalis</i>, <i>Streptococcus pyogenes</i> (gi:9789551), <i>Streptococcus pneumoniae</i>, <i>Ureaplasma urealyticum</i> (gi:6899403), <i>Mycoplasma pneumoniae</i> (gi:1674148), <i>Mycoplasma genitalium</i> (gi:1045954), <i>Clostridium acetobutylicum</i>, <i>Carboxydotherrmus hydrogenoformans</i>, <i>Magnetococcus mc-1</i>.</p>
DinB1	<p><i>Cytophaga hutchinsonii</i>, <i>Treponema denticola</i>, <i>Magnetospirillum magnetotacticum</i> (2), <i>Methylobacterium extorquens</i>, <i>Rhodopseudomonas palustris</i>, <i>Sinorhizobium meliloti</i>, <i>Caulobacter crescentus</i>, <i>Rhodobacter sphaeroides</i>, <i>Rhodobacter capsulatus</i>, <i>Neisseria meningitidis</i> (gi: 6900413), <i>Nitrosomonas europaea</i>, <i>Bordetella pertusis</i>, <i>Burkholderia cepacia</i>, <i>Ralstonia eutropha</i>, <i>Acidithiobacillus ferrooxidans</i>, <i>Legionella pneumophila</i>, <i>Pseudomonas aeruginosa</i> (gi:9946826), <i>Pseudomonas putida</i>, <i>Pseudomonas fluorescens</i>, <i>Pseudomonas syringae</i>, <i>Shewanella putrefaciens</i>, <i>Vibrio cholerae</i> (gi:</p>

	<p>9656851), <i>Pasteurella multocida</i>, <i>Haemophilus influenzae</i> (gi:3212232), <i>Actinobacillus actinomycetemcomitans</i>, <i>Escherichia coli</i> (gi:2501652), <i>Yersinia pestis</i>, <i>Desulfovibrio vulgaris</i>, <i>Geobacter sulfurreducens</i> (2), <i>Streptomyces coelicolor</i> (gi:5531448), <i>Thermomonospora fusca</i>, <i>Mycobacterium tuberculosis</i> DinP (gi:1781157), <i>Mycobacterium tuberculosis</i> DinX (gi:1403505), <i>Mycobacterium avium</i> (DinX), <i>Mycobacterium smegmatis</i> (DinX), <i>Corynebacterium diphtheriae</i> (DinX), <i>Mycobacterium avium</i>, <i>Mycobacterium smegmatis</i>, <i>Desulfotobacterium hafniense</i>, <i>Clostridium difficile</i>, <i>Dehalococcoides ethogenes</i>, <i>Bacillus halodurans</i> (gi:10175362), <i>Bacillus subtilis</i> YqjW (gi:2634806), <i>Bacillus halodurans</i> (gi:10174089), <i>Bacillus stearothermophilus</i>, <i>Bacillus subtilis</i> YqjH (gi:1731071), <i>Staphylococcus aureus</i>, <i>Staphylococcus epidermidis</i>, <i>Bacillus anthracis</i>, <i>Enterococcus faecium</i>, <i>Enterococcus faecalis</i>, <i>Streptococcus equi</i>, <i>Streptococcus pyogenes</i> (gi:9789551), <i>Streptococcus mutans</i>, <i>Ureaplasma urealyticum</i> (gi:6899428), <i>Mycoplasma pneumoniae</i> (gi:2501651) <i>Mycoplasma genitalium</i> (gi:2501650), <i>Clostridium acetobutylicum</i>, <i>Carboxydotherrmus hydrogenoformans</i>, <i>Magnetococcus mc-1</i>.</p>
UmuC	<p><i>Porphyromonas gingivalis</i>, <i>Cytophaga hutchinsonii</i> (2), <i>Synechococcus</i> sp., <i>Prochlorococcus marinus</i>, <i>Methylobacteria extorquens</i>, <i>Acidithiobacillus ferrooxidans</i>, <i>Legionella pneumophila</i> (2), <i>Shewanella putrefaciens</i>, <i>Pseudomonas syringae</i> (RulB gi:1399356), <i>Escherichia coli</i> (UmuC gi:1787432, MucB gi:216828), <i>Salmonella typhi</i> (SamB gi:217089, R27 gi:7800378), <i>Shigella flexneri</i> (ImpB gi:4138834), <i>Providencia rettgeri</i> (RumB gi:862633), <i>Klebsiella pneumoniae</i>, <i>Desulfovibrio vulgaris</i>, <i>Magnetococcus mc-1</i></p>
MutS1	<p><i>Aquifex aeolicus</i> (gi:2983001), <i>Aquifex pyrophilus</i> (gi:1619907), <i>Thermotoga maritima</i> (gi:4982296), <i>Thermus aquaticus</i> (gi:1203807), <i>Thermus thermophilus</i> (gi:1871501), <i>Porphyromonas gingivalis</i>, <i>Cytophaga hutchinsonii</i>, <i>Chlorobium tepidum</i>, <i>Chlamydiophila pneumoniae</i> (gi:8979315), <i>Chlamydia trachomatis</i> (gi:3329257), <i>Nostoc punctiforme</i>, <i>Anabaena</i> sp., <i>Synechococcus</i> sp., <i>Synechocystis</i> sp. (gi:1652903), <i>Prochlorococcus marinus</i>, <i>Treponema pallidum</i> (gi:3322604),</p>

Treponema denticola, *Borrelia burgdorferi* (gi:2688751), *Magnetospirillum magnetotacticum* (2), *Rhodopseudomonas palustris*, *Sinorhizobium meliloti* (gi:8473172), *Caulobacter crescentus*, *Rhodobacter sphaeroides*, *Rickettsia prowazekii* (gi:3860859), *Neisseria meningitidis* (gi:7379009), *Nitrosomonas europaea*, *Bordetella bronchiseptica*, *Burkholderia cepacia*, *Ralstonia eutropha*, *Acidithiobacillus ferrooxidans*, *Xylella fastidiosa* (gi:9106782), *Legionella pneumophila*, *Pseudomonas aeruginosa* (gi:9949778), *Azotobacter vinelandii* (gi:142306), *Pseudomonas putida* (gi:7243293), *Pseudomonas fluorescens*, *Pseudomonas syringae*, *Shewanella putrefaciens*, *Vibrio cholerae* (gi: 9654962), *Vibrio parahaemolyticus* (gi:4929286), *Pasteurella multocida*, *Haemophilus influenzae* (gi:1573708), *Haemophilus ducreyi*, *Actinobacillus actinomycetemcomitans*, *Buchnera sp. APS* (gi:10039093), *Escherichia coli* (gi:1789089), *Salmonella typhimurium* (gi:417330), *Yersinia pestis*, *Clostridium difficile*, *Bacillus halodurans* (gi:10174989), *Bacillus stearothermophilus*, *Bacillus subtilis* (gi:2634076), *Staphylococcus aureus* (gi:7328295), *Staphylococcus epidermidis*, *Bacillus anthracis*, *Enterococcus faecium*, *Enterococcus faecalis*, *Streptococcus pyogenes* (gi:), *Streptococcus pneumoniae* (gi:153655), *Clostridium acetobutylicum*, *Carboxydotherrmus hydrogenoformans*, *Magnetococcus mc-1*,

For sequences deposited in GenBank, gi numbers are shown; other sequences are from incomplete genome sequences.