

Primer/probe Name	Sequence (5' to 3')	Function
RD1	GAATCTGAGTTTTAACCCAGTCTTC	PCR tiling of RD2 (note that this primer flanks RD2)
RD2	CAGGTGCTAGACATACTTATGG	PCR tiling of RD2
RD3	CCCAATATCTACTCCGTT	PCR tiling of RD2
RD4	GGTCAAGTTTGAATTTGTGAG	PCR tiling of RD2
RD5	GGATCTGCTACATCATTAGC	PCR tiling of RD2
RD6	CATGCTAAGGATAATCTTAGTGCCA	PCR tiling of RD2
RD7	GATTATCGAAAACACCTTGTCTGC	PCR tiling of RD2
RD8	GGATAAAGAAAGATGCCTCGTCTAC	PCR tiling of RD2
RD9	CTGATGACTGCATCAGAATCC	PCR tiling of RD2
RD10	CTGGTTAGTGTAGAACAAGAAGAGG	PCR tiling of RD2
RD11	CTTGCTTCGGTAAACTTTGAC	PCR tiling of RD2
RD12	ATCCGATTATCTCAATCTAAGGC	PCR tiling of RD2
RD13	GAATCAACCAGCGAATAGTACGTTT	PCR tiling of RD2
RD14	CAGGTGACTTGTGTGGTATTTTC	PCR tiling of RD2
RD15	CAGAGCGTTTAAATTTGGAAGC	PCR tiling of RD2
RD16	CAAGGTAGTCTTAAAGGCTTCTC	PCR tiling of RD2
RD17	TGTATAGATCACTGGTGTGTAGAG	PCR tiling of RD2
RD18	CTAACCTAACAGCAGATATCAAGC	PCR tiling of RD2
RD19	GTTTCTTCTGTTCTCACTGCTACAG	PCR tiling of RD2
RD20	TCATGCTCGCTTGATGAAT	PCR tiling of RD2
RD21	GACACGACTTTCAAGTAAAG	PCR tiling of RD2
RD22	AGGGTTGGATATGAGTACAGCAGT	PCR tiling of RD2
RD23	CTGTACCATCAGAATATCAATACGTG	PCR tiling of RD2
RD24	CAACTCCATTCTTAAATGTTGCAGC	PCR tiling of RD2
RD25	GGTGAAAAGTTTAGTGACATTTTAGG	PCR tiling of RD2
RD26	GCCAGAGGCTAAGCATAGGA	PCR tiling of RD2
RD27	ATACGTTGAATTTGATGGCAA	PCR tiling of RD2
RD28	GGTTTCGAGATGCTTTTTAAAGAATC	PCR tiling of RD2
RD29	CGTAGCAATGCTATTGATCCTTTAC	PCR tiling of RD2
RD30	ATGTTGCGGGCACCACCTGAATG	PCR tiling of RD2 (note that this primer flanks RD2)
proS.TMF	TACCACTGGCAATCGTACC	Taqman primer for <i>proS</i>
proS.TMR	CATTTCACAGCACCAGTCT	Taqman primer for <i>proS</i>
proS.TMP	CACGCATGATGGTCTTGAATTTCTCA	Taqman probe for <i>proS</i>
endoS.TMF	CGCAAGGACGAGGACAAAGC	Taqman primer for <i>endoS</i>
endoS.TMR	CCCACCTGCTTAGGTTGCCA	Taqman primer for <i>endoS</i>
endoS.TMP	TGCATACCGTTCGGCACCGTCCAGT	Taqman probe for <i>endoS</i>
1329.TMF	TCATAGCTGCTTATGATGAAT	Taqman primer for <i>M28.1329</i>
1329.TMR	TCATAGACCATGAGCCAAATT	Taqman primer for <i>M28.1329</i>
1329.TMP	AAACATCAATGCCCTATCAACAAGCG	Taqman probe for <i>M28.1329</i>
1330.TMF	ATTATTCAAACTAGTCAAAAATATTGC	Taqman primer for <i>M28.1330</i>
1330.TMR	TTCGATAAATACTGTAGAAGC	Taqman primer for <i>M28.1330</i>
1330.TMP	ATTATGCTGGATTCTACTACCTCTCCC	Taqman probe for <i>M28.1330</i>
R28.TMF	ATAGTTGAATTTGATGGCAA	Taqman primer for <i>r28</i>
R28.TMR	CCGAGAGCTAAGCATAGGA	Taqman primer for <i>r28</i>
R28.TMP	TGCATCTAATCCGGCTGTTCTCA	Taqman probe for <i>r28</i>
UNR391	CTATTTAAATAACAGATTAAAAAAATATAAcaatcagttggtttatctgttctaaag	Used with UNR395 to amplify a 1 kb region flanking the <i>r28</i> gene for use in replacing this gene with a spectinomycin resistance cassette (aka strain M28ΔR28)
UNR392	cttagaacaacagataaacaaccatggtttATAATTTTTTAATCTGTTATTAAATAG	Used with UNR394 to amplify a spectinomycin resistance cassette for use in replacing <i>r28</i> to create strain M28ΔR28
UNR393	CGTTATTAGTTATAGTTATTATAAATCATGTTAcaaacgtttatttagacctcaaac	Used with UNR397 to amplify a 1 kb region flanking the <i>r28</i> gene for use in replacing this gene with a spectinomycin resistance cassette (aka strain M28ΔR28)
UNR394	gtttagaagcttaaaaataacagttgATACATGTTATAATAAATCAATAAATTAACG	Used with UNR392 to amplify a spectinomycin resistance cassette for use in replacing <i>r28</i> to create strain M28ΔR28
UNR395	CGCATTTACACTTCTGGATCACTAG	Used with UNR391 to amplify a 1 kb region flanking the <i>r28</i> gene for use in replacing this gene with a spectinomycin resistance cassette (aka strain M28ΔR28)
UNR396	CTGTACCATCAGAAATATCAATACGTG	Used with UNR398 to check that <i>r28</i> has been replaced with a spectinomycin resistance cassette in strain M28ΔR28
UNR397	GTTTCGATATCAAGCTCGTCTGGATG	Used with UNR393 to amplify a 1 kb region flanking the <i>r28</i> gene for use in replacing this gene with a spectinomycin resistance cassette (aka strain M28ΔR28)
UNR398	CAACTTGTGAGTATAGATAAAGATAGC	Used with UNR396 to check that <i>r28</i> has been replaced with a spectinomycin resistance cassette in strain M28ΔR28
UNR400	gatttgatcacgacagatcagCTAATAGAATTAACATAGTAAAGTATC	Used with UNR270 to amplify a 1 kb flank of RD2 for use in replacing most of RD2 with a kanamycin resistance cassette (i.e. making strain M28ΔRD2-Kn)
UNR401	GTAATCGCAATCCGCAATAAAATCACTgctatcttctatactcaacaag	Used with UNR269 to amplify a 1 kb flank of RD2 for use in replacing most of RD2 with a kanamycin resistance cassette (i.e. making strain M28ΔRD2-Kn)
UNR399	GATACTACTATGTTAATCTATTAGCagatgctgctgctgataaac	Used with UNR402 to amplify a kanamycin resistance cassette for use in creating strain M28ΔRD2-Kn
UNR402	cttgtagatagaataagatgacAGATTAAATGCGGATGTTGCGATTAC	Used with UNR399 to amplify a kanamycin resistance cassette for use in creating strain M28ΔRD2-Kn
UNR211	ATGTTGCGGGCACCAACCTGAATG	Used with UNR266 to check that most of RD2 has been replaced with a kanamycin resistance cassette in strain M28ΔRD2-Kn
UNR269	CACCTGAAGCTGCTAATCTAATG	Used with UNR401 to amplify a 1 kb flank of RD2 for use in replacing most of RD2 with a kanamycin resistance cassette (i.e. making strain M28ΔRD2-Kn)
UNR270	CAATTAATAACTTATAGTATTATAAAGAAGG	Used with UNR400 to amplify a 1 kb flank of RD2 for use in replacing most of RD2 with a kanamycin resistance cassette (i.e. making strain M28ΔRD2-Kn)
UNR286	CTTCTCTTCTGAAATCATCTTTACC	Used with UNR211 to check that most of RD2 has been replaced with a kanamycin resistance cassette in strain M28ΔRD2-Kn
UNR83	GATTTTTTATAGATGCGCACCCAGGAATCGAACCTCGGAACGAGCATTACCATTGC	Used with UNR288 to amplify a 1 kb flank next to RD2 for use in creating strain M28ΔRD2
UNR84	CGATTCTCGGTGGTGCATCTATAAAAAATCTGCTCTCAATAAG	Used with UNR85 to amplify a 1 kb flank next to RD2 for use in creating strain M28ΔRD2
UNR85	CTGGGCACGATCTGACACGCGCATGG	Used with UNR84 to amplify a 1 kb flank next to RD2 for use in creating strain M28ΔRD2
UNR176	CCATGCGCTGCTCAAGTGTCTGCCAGaaactagagctgaglaaaaittg	Used with UNR290 to amplify pBBL740 for use in making strain M28ΔRD2
UNR288	CTCTTGTCGCATGTTAATTAACACTGTAGCCTCATTTTGTATGATAAACAAATTAAGG	Used with UNR83 to amplify a 1 kb flank next to RD2 for use in creating strain M28ΔRD2
UNR290	CAITTTGAAGAAGATGATGGCTTATTGGgtacgctagcaallgaca	Used with UNR176 to amplify pBBL740 for use in making strain M28ΔRD2
UNR246	cgttatgattatgattataacatgattGTTGAGCAAAAACTAAAATCTGCTACTC	Used with UNR250 to amplify a 1 kb flank containing M28_1329 for use in creating strain M28.RD2 <sup>SPEC</sup>
UNR247	CTATTTAAATAACAGATTAAAAAAATATAAatcatcaattttataagaaactagctag	Used with UNR248 to amplify a 1 kb flank containing M28_1330 for use in creating strain M28.RD2 <sup>SPEC</sup>
UNR248	GATTTTGAATATGATGGAATG	Used with UNR247 to amplify a 1 kb flank containing M28_1330 for use in creating strain M28.RD2 <sup>SPEC</sup>
UNR249	CATACCTTTTCAGTACACAAGC	Used with UNR251 to check that a spectinomycin resistance cassette has been inserted between M28_1329/1330 in strain M28.RD2 <sup>SPEC</sup>
UNR250	AGTGCATCACTCAATGATGCTCC	Used with UNR246 to amplify a 1 kb flank containing M28_1329 for use in creating strain M28.RD2 <sup>SPEC</sup>
UNR251	CCTAAATTAACCGTTGGTGG	Used with UNR249 to check that a spectinomycin resistance cassette has been inserted between M28_1329/1330 in strain M28.RD2 <sup>SPEC</sup>
UNR254	GAGTAGCAGTTTAGTTTTTGTCTCAACaatacatgtataaactataactaataag	Used with UNR255 to amplify a spectinomycin resistance cassette for use in creating strain M28.RD2 <sup>SPEC</sup>
UNR255	ctcctagttttactataaaaattgatcaTTATAATTTTTTAACTGTTATTAAATAG	Used with UNR254 to amplify a spectinomycin resistance cassette for use in creating strain M28.RD2 <sup>SPEC</sup>
UNR263	CTGATGACTGCATCAAGATCC	Used with UNR264 to amplify part of the <i>r28</i> gene as a marker for the presence of RD2
UNR264	GGATAAAGAAGATGCTCTGCTAC	Used with UNR263 to amplify part of the <i>r28</i> gene as a marker for the presence of RD2
UNR481	CAACATATTGACAAATCCCGAATCG	Used with UNR484 to amplify part of the <i>ropB</i> gene for use as a control in the PCR analysis of figure 2A
UNR484	GGAGTCACTAGAGACTGTG	Used with UNR481 to amplify part of the <i>ropB</i> gene for use as a control in the PCR analysis of figure 2A

Table S2  
Primers and probes used in this study.