TABLE S1. Bacteria used for *in silico* PCR.

Gram Negative

Escherichia fergusonii ATCC 35469
Escherichia fergusonii ECD-227
Escherichia blattae DSM 4481
Escherichia coli 0127:H6 E2348/69
Escherichia coli 042
Escherichia coli 536
Escherichia coli 55989
Escherichia coli ABU 83972
Escherichia coli APEC O1
Escherichia coli ATCC 8739
Escherichia coli B str. REL606
Escherichia coli BL21(DE3)
Escherichia coli BL21(DE3)
Escherichia coli BL21-Gold(DE3)pLysS AG
Escherichia coli BW2952
Escherichia coli CFT073
Escherichia coli DH1
Escherichia coli DH1
Escherichia coli E24377A
Escherichia coli ED1a
Escherichia coli ETEC H10407
Escherichia coli HS
Escherichia coli IAI1
Escherichia coli IAI39
Escherichia coli IHE3034
Escherichia coli K-12 substr. W3110
Escherichia coli KO11FL
Escherichia coli KO11FL
Escherichia coli LF82
Escherichia coli NA114
Escherichia coli O103:H2 str. 12009
Escherichia coli O111:H- str. 11128
Escherichia coli O157:H7
Escherichia coli O157:H7 EDL933
Escherichia coli O157:H7 str. EC4115
Escherichia coli O157:H7 str. TW14359
Escherichia coli O26:H11 str. 11368
Escherichia coli O55:H7 str. CB9615
Escherichia coli O55:H7 str. RM12579
Escherichia coli O7:K1 str. CE10
Escherichia coli O83:H1 str. NRG 857C
Escherichia coli P12b
Escherichia coli S88
Escherichia coli SE11
Escherichia coli SE15
Escherichia coli SMS-3-5
Escherichia coli UM146
Escherichia coli UMN026
Escherichia coli UMNK88
Escherichia coli UTI89
Escherichia coli Xuzhou21
Escherichia coli str. K-12 substr. DH10B
Escherichia coli str. K-12 substr. MG1655
Escherichia coli str. K-12 substr. W3110
Escherichia coli str. clone D i14
Escherichia coli str. clone D i2
Acinetobacter baumannii 1656-2 chromosome
Acinetobacter baumannii AB0057
Acinetobacter baumannii AB307-0294
Acinetobacter baumannii ACICU
Acinetobacter baumannii ATCC 17978
Acinetobacter baumannii AYE
Acinetobacter baumannii MDR-TJ
Acinetobacter baumannii MDR-ZJ06
Acinetobacter baumannii SDF
Acinetobacter baumannii TCDC-AB0715
Acinetobacter calcoaceticus PHEA-2
Acinetobacter sp. ADP1
Acinetobacter sp. DR1
Aeromonas hydrophila ATCC 7966
Aeromonas salmonicida A449
Aeromonas veronii B565
Burkholderia ambifaria MC40-6 chromosome 1
Burkholderia cenocepacia AU 1054
Burkholderia cenocepacia HI2424
Burkholderia cenocepacia J2315
Burkholderia cenocepacia MC0-3 chromosome 1
Burkholderia cepacia AMMD chromosome 1
Burkholderia cepacia GG4
Burkholderia gladioli BSR3
Burkholderia glumae BGR1
Burkholderia mallei ATCC 23344
Burkholderia mallei NCTC 10229
Burkholderia mallei NCTC 10247
Burkholderia mallei SAVP1
Burkholderia multivorans ATCC 17616 JGI
Burkholderia multivorans ATCC 17616 Tohoku
Burkholderia phymatum STM815
Burkholderia phytofirmans PsJN
Burkholderia pseudomallei 1026b
Burkholderia pseudomallei 1106a
Burkholderia pseudomallei 1710b
Burkholderia pseudomallei 668
Burkholderia pseudomallei K96243
Burkholderia pseudomallei MSHR346 chromosome I
Burkholderia rhizoxinica HKI 454
Burkholderia sp. 383 chromosome 1
Burkholderia sp. CCGE1001

Burkholderia sp. CCGE1002
Burkholderia sp. CCGE1003
Burkholderia sp. KJ006
Burkholderia sp. YI23
Burkholderia thailandensis E264
Burkholderia vietnamiensis G4
Burkholderia xenovorans LB400 chromosome 1
Citrobacter koseri ATCC BAA-895
Citrobacter rodentium ICC168
Enterobacter aerogenes KCTC 2190
Enterobacter asburiae LF7a
Enterobacter cloacae EcWSU1
Enterobacter cloacae SCF1
Enterobacter cloacae subsp. Cloacae ATCC 13047
Enterobacter cloacae subsp. Dissolvens SDM
Enterobacter sakazakii ATCC BAA-894
Enterobacter sp. 638
Haemophilus ducreyi 35000HP
Haemophilus influenzae 10810
Haemophilus influenzae 86-028NP
Haemophilus influenzae F3031
Haemophilus influenzae F3047
Haemophilus influenzae PittEE
Haemophilus influenzae PittGG
Haemophilus influenzae R2846
Haemophilus influenzae R2866
Haemophilus influenzae Rd
Haemophilus parainfluenzae T3T1
Haemophilus parasuis SH0165
Haemophilus somnus 129PT
Haemophilus somnus 2336
Klebsiella oxytoca E718
Klebsiella oxytoca KCTC 1686
Klebsiella pneumoniae 342
Klebsiella pneumoniae KCTC 2242
Klebsiella pneumoniae NTUH-K2044
Klebsiella pneumoniae HS11286
Klebsiella pneumoniae MGH 78578
Klebsiella variicola At-22
Legionella longbeachae NSW150
Legionella pneumophila 2300/99 Alcoy
Legionella pneumophila str. Corby
Legionella pneumophila str. Lens
Legionella pneumophila str. Paris
Legionella pneumophila ATCC 43290
Legionella pneumophila NC_018139
Legionella pneumophila NC_018140
Legionella pneumophila str. Philadelphia 1
Moraxella catarrhalis RH4
Neisseria gonorrhoeae FA 1090
Neisseria gonorrhoeae NCCP11945
Neisseria gonorrhoeae TCDC-NG08107
Neisseria lactamica 020-06
Neisseria meningitidis 053442
Neisseria meningitidis 8013
Neisseria meningitidis FAM18
Neisseria meningitidis G2136
Neisseria meningitidis H44/76
Neisseria meningitidis M01-240149
Neisseria meningitidis M01-240355
Neisseria meningitidis M04-240196
Neisseria meningitidis NZ-05/33
Neisseria meningitidis WUE 2594
Neisseria meningitidis alpha14
Neisseria meningitidis alpha710
Neisseria meningitidis serogroup A strain Z2491
Neisseria meningitidis serogroup B strain MC58
Pantoea ananatis AJ13355
Pantoea ananatis LMG 20103
Pantoea ananatis LMG 5342
Pantoea ananatis PA13
Pantoea sp. At-9b
Pantoea vagans C9-1
Pasteurella multocida
Pasteurella multocida 36950
Pasteurella multocida subsp. Multocida str. 3480
Pasteurella multocida subsp. Multocida str. HN06
Photorhabdus asymbiotica
Photorhabdus luminescens
Proteus mirabilis HI4320
Providencia stuartii MRSN 2154
Pseudomonas aeruginosa
Pseudomonas aeruginosa DK2
Pseudomonas aeruginosa LESB58
Pseudomonas aeruginosa M18
Pseudomonas aeruginosa NCGM2.S1
Pseudomonas aeruginosa PA7
Pseudomonas aeruginosa UCBPP-PA14
Pseudomonas brassicacearum NFM421
Pseudomonas entomophila L48
Pseudomonas fluorescens A506
Pseudomonas fluorescens F113
Pseudomonas fluorescens Pf-5
Pseudomonas fluorescens PfO-1
Pseudomonas fluorescens SBW25
Pseudomonas fulva 12-X
Pseudomonas mendocina NK-01
Pseudomonas mendocina ymp
Pseudomonas putida BIRD-1
Pseudomonas putida DOT-T1E

Pseudomonas putida F1
Pseudomonas putida GB-1
Pseudomonas putida KT2440
Pseudomonas putida ND6
Pseudomonas putida S16
Pseudomonas putida W619
Pseudomonas stutzeri A1501
Pseudomonas stutzeri ATCC 17588 = LMG 11199
Pseudomonas stutzeri CCUG 29243
Pseudomonas stutzeri DSM 10701
Pseudomonas stutzeri DSM 4166
Pseudomonas syringae
Pseudomonas syringae pv. Phaseolicola 1448A
Salmonella bongori NCTC 12419
Salmonella enterica subsp. *arizonae* ser.62:z4,z23
Salmonella enterica ser. Agona str. SL483
Salmonella enterica ser. Choleraesuis str. SC-B67
Salmonella enterica ser. Dublin str. CT_02021853
Salmonella enterica ser. Enteritidis str. P125109
Salmonella enterica ser. Gallinarum str. 287/91
Salmonella enterica ser. Gallinarum RKS5078
Salmonella enterica ser. Heidelberg str. B182
Salmonella enterica ser. Heidelberg str. SL476
Salmonella enterica ser. Newport str. SL254
Salmonella enterica ser. Paratyphi A str. AKU_12601
Salmonella enterica ser. Paratyphi A str. ATCC 9150
Salmonella enterica ser. Paratyphi B str. SPB7
Salmonella enterica ser. Paratyphi C strain RKS4594
Salmonella enterica ser. Schwarzengrund CVM19633
Salmonella enterica ser.Typhi
Salmonella enterica ser. Typhi Ty2
Salmonella enterica ser. Typhi str. P-stx-12
Salmonella enterica ser. Typhimurium LT2
Salmonella enterica ser. Typhimurium str. 14028S
Salmonella enterica ser. Typhimurium str. 798
Salmonella enterica ser. Typhimurium str. D23580
Salmonella enterica ser. Typhimurium str. SL1344
Salmonella enterica ser. Typhimurium str. ST4/74
Salmonella enterica ser. Typhimurium str. T000240
Salmonella enterica ser. Typhimurium str. UK-1
Serratia proteamaculans 568
Serratia sp. AS12
Serratia sp. AS13
Serratia sp. AS9
Serratia symbiotica str. 'Cinara cedri"
Shigella boydii CDC 3083-94
Shigella boydii Sb227
Shigella dysenteriae Sd197
Shigella flexneri 2002017
Shigella flexneri 2a str 301
Shigella flexneri 2a str. 2457T
Shigella flexneri 5 str. 8401
Shigella sonnei 53G
Shigella sonnei Ss046
Vibrio anguillarum 775
Vibrio cholerae
Vibrio cholerae IEC224
Vibrio cholerae LMA3984-4
Vibrio cholerae M66-2
Vibrio cholerae MJ-1236
Vibrio cholerae O1 str. 2010EL-1786
Vibrio cholerae O395
Vibrio cholerae O395 chromosome 1
Vibrio fischeri ES114
Vibrio fischeri MJ11
Vibrio furnissii NCTC 11218
Vibrio harveyi ATCC BAA-1116
Vibrio parahaemolyticus RIMD 2210633
Vibrio sp. EJY3
Vibrio sp. Ex25
Vibrio splendidus LGP32
Vibrio vulnificus CMCP6
Vibrio vulnificus MO6-24/O
Vibrio vulnificus YJ016
Pelobacter carbinolicus DSM 2380
Pelobacter propionicus DSM 2379
Shewanella amazonensis SB2B
Shewanella baltica BA175
Shewanella baltica OS117
Shewanella baltica OS155
Shewanella baltica OS185
Shewanella baltica OS195
Shewanella baltica OS223
Shewanella baltica OS678
Shewanella denitrificans OS217
Shewanella frigidimarina NCIMB 400
Shewanella halifaxensis HAW-EB4
Shewanella loihica PV-4
Shewanella oneidensis MR-1
Shewanella pealeana ATCC 700345
Shewanella piezotolerans WP3
Shewanella putrefaciens 200
Shewanella putrefaciens CN-32
Shewanella sediminis HAW-EB3
Shewanella sp. ANA-3
Shewanella sp. MR-4
Shewanella sp. MR-7
Shewanella sp. W3-18-1
Shewanella violacea DSS12
Shewanella woodyi ATCC 51908

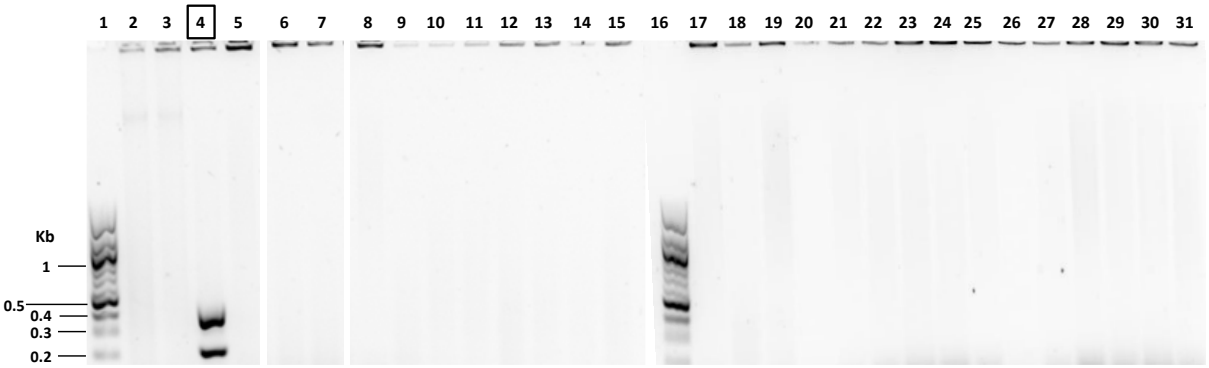
Gram Positive

Enterococcus faecalis 62
Enterococcus faecalis D32
Enterococcus faecalis OG1RF
Enterococcus faecalis V583
Enterococcus faecium Aus0004
Enterococcus faecium DO
Enterococcus hirae ATCC 9790
Lactobacillus acidophilus 30SC
Lactobacillus acidophilus NCFM
Lactobacillus amylovorus GRL 1112
Lactobacillus amylovorus GRL1118
Lactobacillus brevis ATCC 367
Lactobacillus buchneri NRRL B-30929
Lactobacillus casei ATCC 334
Lactobacillus casei BD-II
Lactobacillus casei BL23
Lactobacillus casei LC2W
Lactobacillus casei str. Zhang
Lactobacillus crispatus ST1
Lactobacillus delbrueckii subsp. bulgaricus 2038
Lactobacillus delbrueckii ATCC 11842
Lactobacillus delbrueckii ATCC BAA-365
Lactobacillus delbrueckii subsp. bulgaricus ND02
Lactobacillus fermentum CECT 5716
Lactobacillus fermentum IFO 3956
Lactobacillus gasseri ATCC 33323
Lactobacillus helveticus DPC 4571
Lactobacillus helveticus H10
Lactobacillus johnsonii DPC 6026
Lactobacillus johnsonii FI9785
Lactobacillus johnsonii NCC 533
Lactobacillus kefiranofaciens ZW3
Lactobacillus plantarum JDM1
Lactobacillus plantarum WCFS1
Lactobacillus plantarum subsp. plantarum ST-III
Lactobacillus reuteri DSM 20016
Lactobacillus reuteri F275 Kitasato
Lactobacillus reuteri SD2112
Lactobacillus rhamnosus ATCC 8530
Lactobacillus rhamnosus GG
Lactobacillus rhamnosus GG
Lactobacillus rhamnosus Lc 705
Lactobacillus ruminis ATCC 27782
Lactobacillus sakei subsp. sakei 23K
Lactobacillus salivarius CECT 5713
Lactobacillus salivarius subsp. salivarius UCC118
Lactobacillus sanfranciscensis TMW 1.1304
Leifsonia xyli subsp. xyli str. CTCB07
Listeria innocua Clip11262
Listeria ivanovii subsp. ivanovii PAM 55
Listeria monocytogenes 07PF0776
Listeria monocytogenes 08-5578
Listeria monocytogenes 08-5923
Listeria monocytogenes 10403S
Listeria monocytogenes Clip81459
Listeria monocytogenes FSL R2-561
Listeria monocytogenes Finland 199
Listeria monocytogenes HCC23
Listeria monocytogenes J0161
Listeria monocytogenes L99
Listeria monocytogenes M7
Listeria monocytogenes 4b F2365
Listeria monocytogenes EGD
Listeria seeligeri serovar 1/2b str. SLCC3954
Listeria welshimeri serovar 6b str. SLCC5334
Micrococcus luteus NCTC 2665
Staphylococcus aureus 04-02981
Staphylococcus aureus RF122
Staphylococcus aureus Mu50
Staphylococcus aureus 11819-97
Staphylococcus aureus 71193
Staphylococcus aureus COL
Staphylococcus aureus ECT-R 2
Staphylococcus aureus ED133
Staphylococcus aureus ED98
Staphylococcus aureus HO 5096 0412
Staphylococcus aureus JH1
Staphylococcus aureus JH9
Staphylococcus aureus JKD6159
Staphylococcus aureus LGA251
Staphylococcus aureus M013
Staphylococcus aureus MRSA252
Staphylococcus aureus MSHR1132
Staphylococcus aureus MSSA476
Staphylococcus aureus MW2
Staphylococcus aureus Mu3
Staphylococcus aureus N315
Staphylococcus aureus NCTC 8325
Staphylococcus aureus S0385
Staphylococcus aureus T0131
Staphylococcus aureus TCH60
Staphylococcus aureus TW20
Staphylococcus aureus USA300_FPR3757
Staphylococcus aureus USA300_TCH1516
Staphylococcus aureus VC40
Staphylococcus aureus JKD6008
Staphylococcus aureus Newman
Staphylococcus carnosus TM300

Staphylococcus epidermidis ATCC_12228
Staphylococcus epidermidis RP62A
Staphylococcus haemolyticus JCSC1435
Staphylococcus lugdunensis HKU09-01
Staphylococcus lugdunensis N920143
Staphylococcus pseudintermedius ED99
Staphylococcus pseudintermedius HKU10-03
Staphylococcus saprophyticus subsp. Saprophyticus
Streptococcus agalactiae 2603V/R
Streptococcus agalactiae A909
Streptococcus agalactiae NEM316
Streptococcus dysgalactiae ATCC 12394
Streptococcus dysgalactiae GGS_124 chromosome 1
Streptococcus equi subsp. equi 4047
Streptococcus equi subsp. zooepidemicus
Streptococcus equi ATCC 35246
Streptococcus equi MGCS10565
Streptococcus gallolyticus UCN34
Streptococcus gallolyticus ATCC 43143
Streptococcus gallolyticus ATCC BAA-2069
Streptococcus gordonii str. Challis substr. CH1
Streptococcus infantarius subsp. infantarius CJ18
Streptococcus intermedius JTH08
Streptococcus macedonicus ACA-DC 198
Streptococcus mitis B6
Streptococcus mutans GS-5
Streptococcus mutans LJ23
Streptococcus mutans NN2025
Streptococcus mutans UA159
Streptococcus oralis Uo5
Streptococcus parasanguinis ATCC 15912
Streptococcus parasanguinis FW213
Streptococcus parauberis KCTC 11537
Streptococcus pasteurianus ATCC 43144
Streptococcus pneumoniae 670-6B
Streptococcus pneumoniae 70585
Streptococcus pneumoniae AP200
Streptococcus pneumoniae ATCC 700669
Streptococcus pneumoniae CGSP14
Streptococcus pneumoniae D39
Streptococcus pneumoniae G54
Streptococcus pneumoniae Hungary19A-6
Streptococcus pneumoniae INV104
Streptococcus pneumoniae INV200
Streptococcus pneumoniae JJA
Streptococcus pneumoniae OXC141
Streptococcus pneumoniae P1031
Streptococcus pneumoniae R6
Streptococcus pneumoniae ST556
Streptococcus pneumoniae TCH8431/19A
Streptococcus pneumoniae TIGR4
Streptococcus pneumoniae Taiwan19F-14
Streptococcus pseudopneumoniae IS7493
Streptococcus pyogenes Alab49
Streptococcus pyogenes M1 GAS
Streptococcus pyogenes MGAS10270
Streptococcus pyogenes MGAS10394
Streptococcus pyogenes MGAS10750
Streptococcus pyogenes MGAS15252
Streptococcus pyogenes MGAS1882
Streptococcus pyogenes MGAS2096
Streptococcus pyogenes MGAS315
Streptococcus pyogenes MGAS5005
Streptococcus pyogenes MGAS6180
Streptococcus pyogenes MGAS9429
Streptococcus pyogenes NZ131
Streptococcus pyogenes SSI-1
Streptococcus pyogenes str. Manfredo
Streptococcus pyogenes strain MGAS8232
Streptococcus salivarius 57.I
Streptococcus salivarius CCHSS3
Streptococcus salivarius JIM8777
Streptococcus sanguinis SK36
Streptococcus suis 05ZYH33
Streptococcus suis 98HAH33
Streptococcus suis A7
Streptococcus suis BM407
Streptococcus suis D12
Streptococcus suis D9
Streptococcus suis GZ1
Streptococcus suis JS14
Streptococcus suis P1/7
Streptococcus suis SC84
Streptococcus suis SS12
Streptococcus suis ST1
Streptococcus suis ST3
Streptococcus thermophilus CNRZ1066
Streptococcus thermophilus JIM 8232
Streptococcus thermophilus LMD-9
Streptococcus thermophilus LMG 18311
Streptococcus thermophilus MN-ZLW-002
Streptococcus thermophilus ND03
Streptococcus uberis 0140J

FIGURE S1. Conventional duplex PCR using the Efer13 and EferYP primers performed on a variety of bacterial species. The 25µl final volume of the PCR mixture contained 0.4µM of dNTPs, 0.5 µM of each primer, 15µl of molecular grade water, 2.5µl of ThermoPol Buffer 10X and 0.5µl of Taq DNA polymerase and half a colony of the bacterial strain tested. The cycling conditions were 94°C for 5min, followed by 37 cycles of 94°C for 30 sec, 56.5°C for 30 sec, 72°C for 30 sec, and then a final extension of 30 sec and hold at 4°C. Universal U165 primers (targeting 16S rDNA) were used as a control for the template DNA. The cycling conditions for the U165 primers were 94°C for 3 min, followed by 32 cycles of 94°C for 30 sec, 50°C for 1 min, 72°C for 1 min, and then a hold at 4°C. The PCR products were separated on a 1.2% Tris-acetate-EDTA buffer agarose electrophoresis gel stained using Gelred. The bands were referenced to a 100 bp and 1 kb DNA ladder to size the amplicons. Lane 1: 1kb ladder; 2: *Pseudomonas aeruginosa* Pa01; 3: *Pseudomonas aeruginosa* ATCC 27853; 4: *Escherichia fergusonii* ECD-227; 5: *Escherichia coli* Chi7122; 6: *Salmonella typhimurium* st002; 7: *Salmonella typhimurium* st004; 8: *Klebsiella oxytoca* ATCC 43165; 9: *Proteus vulgaris* ATCC 13351; 10: *Proteus mirabilis* Pm002; 11: *Proteus mirabilis* Pm001; 12: *Proteus mirabilis* Pm003; 13: *Proteus mirabilis* ATCC 25933; 14: *Proteus mirabilis* Pm004; 15: *Proteus mirabilis* Pm005; 16: 1kb ladder; 17: *Enterobacter cloacae* ent002; 18: *Enterobacter cloacae* ent003; 19: *Enterobacter cloacae* ent004; 20: *Micrococcus luteus* ATCC 12698; 21: *Pasteurella multocida* Pm016; 22: *Escherichia coli* Ec001; 23: *Escherichia coli* Ec002; 24: *Escherichia coli* Ec039; 25: *Escherichia coli* Ec048; 26: *Klebsiella pneumoniae* Kp001; 27: *Klebsiella pneumoniae* Kp004; 28: *Klebsiella pneumoniae* Kp005; 29: *Klebsiella pneumoniae* Kp006; 30: *Klebsiella pneumoniae* Kp007; 31: *Micrococcus luteus* ATCC 9341.

FIGURE S1


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Kb
1
0.5
0.4
0.3
0.2