**Table S1.** 100 genes chosen for analysis in this study.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ORF** | **Startd** | **End** | **Strand** | **Size (bp)** | **Name** | **Description** |
| HMPREF0351\_10005c | 4312 | 6258 | + | 1947 | *gyrB* | DNA topoisomerase subunit B |
| HMPREF0351\_10009b | 9872 | 10108 | + | 237 | *rpsR* | ribosomal protein S18 |
| HMPREF0351\_10017 | 20752 | 22482 | - | 1731 | *poxB* | pyruvate oxidase |
| HMPREF0351\_10054 | 58163 | 60250 | + | 2088 | *fusA* | protein-synthesizing GTPase |
| HMPREF0351\_10068a,b | 67123 | 67491 | + | 369 | *rplN*  | ribosomal protein L14 |
| HMPREF0351\_10078b | 71325 | 72620 | + | 1296 | *secY* | preprotein translocase subunit SecY |
| HMPREF0351\_10083b | 74767 | 75705 | + | 939 | *rpoA* | RNA polymerase subunit alpha |
| HMPREF0351\_10125b | 123688 | 123909 | + | 222 | *metG* | methionine--tRNA ligase |
| HMPREF0351\_10135 | 131070 | 133715 | + | 2646 | *mutS* | DNA mismatch repair protein MutS |
| HMPREF0351\_10137 | 135863 | 136423 | + | 561 | *maf* | septum formation protein Maf |
| HMPREF0351\_10164 | 162881 | 164251 | - | 1371 | *dinF* | MATE family protein |
| HMPREF0351\_10231b | 229498 | 229698 | + | 201 | *rpmI* | ribosomal protein L35 |
| HMPREF0351\_10244a,c | 240647 | 241726 | + | 1080 | *pepA* | M42 family glutamyl aminopeptidase |
| HMPREF0351\_10375 | 354375 | 355688 | + | 1314 | *yieG* | NCS2 family purine:cation symporter |
| HMPREF0351\_10389c | 374025 | 374741 | + | 717 | *glpF2* | MIP family channel protein |
| HMPREF0351\_10406 | 389976 | 390635 | + | 660 | *rcfA* | CRP/FNR transcriptional regulator |
| HMPREF0351\_10439 | 429479 | 430207 | + | 729 |  | integral membrane protein |
| HMPREF0351\_10460 | 453947 | 454675 | - | 729 | *agrA* | accessory gene regulator protein A |
| HMPREF0351\_10474b | 471998 | 472561 | + | 564 | *efp* | elongation factor P |
| HMPREF0351\_10476 | 473048 | 474307 | + | 1260 | *lysA* | diaminopimelate decarboxylase |
| HMPREF0351\_10493 | 491476 | 492381 | + | 906 |  | AraC family transcriptional regulator |
| HMPREF0351\_10496 | 493430 | 494326 | + | 897 |  | LysM family surface protein |
| HMPREF0351\_10540 | 536179 | 537375 | - | 1197 | *telA* | tellurite resistance protein |
| HMPREF0351\_10568 | 567155 | 568342 | + | 1188 | *ftsW* | cell division membrane protein  |
| HMPREF0351\_10578a | 575515 | 575985 | + | 471 | *iscU* |  Fe-S cluster formation protein  |
| HMPREF0351\_10611 | 612012 | 612923 | + | 912 | *ppiA* | peptidylprolyl isomerase |
| HMPREF0351\_10633 | 631143 | 631583 | + | 441 | *ntd* | nucleoside deoxyribosyltransferase |
| HMPREF0351\_10659 | 664118 | 664564 | - | 447 | *nrdI* | ribonucleotide reductase |
| HMPREF0351\_10683 | 684086 | 685021 | + | 936 | *murB* | N-acetylmuramate dehydrogenase |
| HMPREF0351\_10719 | 723392 | 725002 | + | 1611 | *pyrG* | CTP synthase |
| HMPREF0351\_10743b | 745909 | 746256 | + | 348 | *yabA* | regulator of replication initiation  |
| HMPREF0351\_10765b | 770338 | 770646 | + | 309 | *rplU* | ribosomal protein L21 |
| HMPREF0351\_10791 | 791519 | 793711 | + | 2193 | *pbpA* | penicillin-binding protein 1 |
| HMPREF0351\_10798 | 801185 | 801862 | + | 678 | *alr2* | alanine racemase |
| HMPREF0351\_10801 | 803629 | 804336 | + | 708 | *divIVA* | cell division initiation protein DivIVA |
| HMPREF0351\_10810 | 813420 | 816122 | + | 2703 | *sigL* | RNA polymerase sigma subunit  |
| HMPREF0351\_10903a,c | 877677 | 878897 | + | 1221 | *tagH* | teichoic acid ABC superfamily  |
| HMPREF0351\_10938 | 914820 | 915452 | + | 633 |  | LuxR family response regulator |
| HMPREF0351\_10945 | 920237 | 920845 | + | 609 | *sodA* | superoxide dismutase |
| HMPREF0351\_10961b | 937960 | 938226 | + | 267 | *ptsH* | PTS family porter component HPr |
| HMPREF0351\_10976 | 950670 | 952049 | + | 1380 | *accC* | biotin carboxylase |
| HMPREF0351\_11002 | 982334 | 984118 | + | 1785 | *pyk* | pyruvate kinase |
| HMPREF0351\_11005b | 985868 | 986047 | + | 180 | *rpmF* | ribosomal protein L32 |
| HMPREF0351\_11081c | 1066164 | 1067351 | + | 1188 | *tufA2* | elongation factor EF1A |
| HMPREF0351\_11103 | 1091135 | 1091356 | - | 222 | *fer* | ferredoxin |
| HMPREF0351\_11142 | 1127033 | 1127824 | + | 792 | *codY* | CodY family transcriptional regulator |
| HMPREF0351\_11157 | 1143520 | 1144467 | + | 948 |  | LacI family transcriptional regulator |
| HMPREF0351\_11204 | 1187269 | 1188564 | + | 1296 | *purB* | adenylosuccinate lyase |
| HMPREF0351\_11221a | 1205721 | 1207247 | + | 1527 | *araG* | L-arabinose ABC superfamily  |
| HMPREF0351\_11245 | 1232977 | 1233516 | + | 540 | *comEB* | competence protein ComEB |
| HMPREF0351\_11282 | 1267078 | 1268121 | + | 1044 | *pheS2* | phenylalanine--tRNA ligase  |
| HMPREF0351\_11311 | 1296129 | 1298126 | + | 1998 | *tktA* | transketolase |
| HMPREF0351\_11315c | 1300562 | 1301008 | + | 447 | *fur2* | Fur family transcriptional regulator |
| HMPREF0351\_11316 | 1301281 | 1302633 | + | 1353 | *nox* | NADH dehydrogenase |
| HMPREF0351\_11335 | 1321937 | 1323286 | + | 1350 | *rhlB* | ATP-dependent RNA helicase |
| HMPREF0351\_11369a | 1356073 | 1356927 | + | 855 | *aroE* | shikimate dehydrogenase |
| HMPREF0351\_11548 | 1517751 | 1520360 | - | 2610 | *clpB* | S14 family endopeptidase Clp |
| HMPREF0351\_11556 | 1526794 | 1527720 | - | 927 | *dnaI* | primosomal protein DnaI |
| HMPREF0351\_11568 | 1538758 | 1540938 | - | 2181 | *tex* | S1 domain RNA-binding protein |
| HMPREF0351\_11610 | 1583663 | 1585222 | + | 1560 | *eriC* | CPA2 family cation:proton antiporter |
| HMPREF0351\_11619a,c | 1593185 | 1594474 | - | 1290 | *tig* | cell division trigger factor |
| HMPREF0351\_11642 | 1618069 | 1618800 | - | 732 | *racX* | aspartate racemase |
| HMPREF0351\_11679 | 1657393 | 1659102 | - | 1710 | *proS* | proline--tRNA ligase |
| HMPREF0351\_11694 | 1673135 | 1674364 | - | 1230 | *arcA* | arginine deiminase |
| HMPREF0351\_11718b | 1693974 | 1695869 | - | 1896 | *asnB* | asparagine synthase  |
| HMPREF0351\_11738 | 1712076 | 1713422 | - | 1347 | *pgi* | glucose-6-phosphate isomerase |
| HMPREF0351\_11759 | 1733232 | 1733942 | - | 711 | *alsD* | acetolactate decarboxylase |
| HMPREF0351\_11836b | 1805300 | 1805575 | - | 276 | *rpsP* | ribosomal protein S16 |
| HMPREF0351\_11857c | 1824675 | 1825649 | - | 975 | *cbh3* | choloylglycine hydrolase |
| HMPREF0351\_11894 | 1855186 | 1856484 | - | 1299 | *asnS* | asparagine--tRNA ligase |
| HMPREF0351\_11904a | 1864309 | 1865616 | + | 1308 | *dacA* | S11 D-Ala-D-Ala carboxypeptidase |
| HMPREF0351\_11979c | 1928482 | 1929453 | - | 972 | *phoH* | phosphate starvation-inducible  |
| HMPREF0351\_12018c | 1972203 | 1972880 | - | 678 | *phoU* | phosphate regulatory protein |
| HMPREF0351\_12030 | 1984852 | 1985403 | - | 552 | *yfiA* | ribosome-associated inhibitor  |
| HMPREF0351\_12057 | 2005959 | 2006195 | - | 237 | *secG* | Sec family Type I secretory protein  |
| HMPREF0351\_12066 | 2013386 | 2014576 | - | 1191 | *pgk* | phosphoglycerate kinase |
| HMPREF0351\_12075c | 2021207 | 2021827 | - | 621 | *rpoE2* | RNA polymerase subunit delta |
| HMPREF0351\_12120 | 2067231 | 2068871 | + | 1641 | *sfcA* | malate dehydrogenase  |
| HMPREF0351\_12172 | 2114033 | 2114770 | - | 738 | *glpQ2* | glycerophosphodiesterase  |
| HMPREF0351\_12186 | 2126586 | 2129231 | - | 2646 | *valS* | valine--tRNA ligase |
| HMPREF0351\_12209 | 2155856 | 2156365 | + | 510 | *pgpA* | phosphatidylglycerophosphatase |
| HMPREF0351\_12250 | 2197932 | 2199041 | + | 1110 | *msmK* | maltose ABC superfamily  |
| HMPREF0351\_12258c | 2205177 | 2207186 | - | 2010 | *metG2* | methionine--tRNA ligase |
| HMPREF0351\_12275 | 2222997 | 2224433 | - | 1437 | *bglB2* | beta-glucosidase |
| HMPREF0351\_12305 | 2246582 | 2247934 | + | 1353 | *murE* | UDP- ligase |
| HMPREF0351\_12332 | 2275213 | 2276637 | - | 1425 | *araA* | L-arabinose isomerase |
| HMPREF0351\_12354c | 2300216 | 2300500 | - | 285 | *groES* | chaperone GroES |
| HMPREF0351\_12371 | 2316689 | 2317333 | - | 645 |  | GntR family transcriptional regulator |
| HMPREF0351\_12412 | 2352668 | 2353534 | - | 867 | *rrmA* | 23S rRNA methyltransferase A |
| HMPREF0351\_12423 | 2364403 | 2365056 | - | 654 | *mecA* | competence negative regulator MecA |
| HMPREF0351\_12437 | 2384535 | 2385794 | - | 1260 | *cypX* | cytochrome P450 |
| HMPREF0351\_12458 | 2401433 | 2402482 | - | 1050 | *comGB* | competence protein ComGB |
| HMPREF0351\_12497 | 2452371 | 2453228 | - | 858 | *cscK3* | fructokinase |
| HMPREF0351\_12540 | 2508096 | 2509289 | - | 1194 | *metK* | methionine adenosyltransferase |
| HMPREF0351\_12545 | 2520662 | 2522773 | - | 2112 | *ftsH* | M41 family endopeptidase FtsH |
| HMPREF0351\_12572 | 2552543 | 2553157 | - | 615 | *gmk* | guanylate kinase |
| HMPREF0351\_12605c | 2587423 | 2588580 | - | 1158 |  | PilT domain protein |
| HMPREF0351\_12650 | 2625999 | 2626466 | - | 468 | *dps* | DNA-binding protein Dps |
| HMPREF0351\_12682 | 2667041 | 2668387 | - | 1347 | *gor2* | glutathione-disulfide reductase |
| HMPREF0351\_12694 | 2688720 | 2689610 | - | 891 | *spo0J* | stage 0 DNA-binding protein spoOJ |

a Genes left out of the individual gene analysis (i.e. genes that did not show clade distinctions)

b Genes that do not have non-synonomous changes in their encoded protein

c Genes that have non-synonomous changes in their encoded protein, but are not clade specific

d Refers to the nucleotide start and end sites on the DO chromosome (manuscript in preparation)

e An empty cell indicates a KEGG number was not identified