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| **Supplementary File 6. Strains and plasmids used in this study** | | |
| Strain | Strain.ID | Description | Source |
| *P. aeruginosa* |  |  |  |
| PA14WT | DH122 | Laboratory reference strain | (1) |
| PA14 *∆lasR* | DH164 | PA14 WT (DH122) with in-frame deletion of *lasR* (PA14\_45960*)* | (2) |
| PAO-MW1qsc102 | DH161 | AHL-sensing bioreporter; PAO1 *lasIrhlI* mutant with Tn5-B22, which contains promoterless *lacZ* located within PA1896 (hypothetical protein) at chromosomal location of 2,067,716. Responsive to 3OC12-HSL but not C4-HSL. | (3, 4) |
| PAO-MW1qsc131 | DH162 | AHL-sensing bioreporter; PAO1 *lasIrhlI* mutant with Tn5-B22, which contains promoterless *lacZ,* under *phzC* promoter control. Responsive to either 3OC12-HSL or C4-HSL but requires both for full activation. | (3, 4) |
| PA14WT *att::lacZ* | DH22 | PA14 WT with constitutive expression of *lacZ* | Roberto Kolter (5, 6) |
| PA14 WT | DH2455 | PA14 WT (strain background of kinase clean deletion mutants; parent of DH2456 - DH2518) | (7) |
| PA14 ∆*cheA* | DH2456 | PA14 WT (DH2455) with in-frame deletion in *cheA* (PA14\_02250) | (7) |
| PA14 ∆*chpA* | DH2457 | PA14 WT (DH2455) with in-frame deletion in *chpA* (PA14\_05390) | (7) |
| PA14 ∆*creC* | DH2458 | PA14 WT (DH2455) with in-frame deletion in *creC* (PA14\_06070) | (7) |
| PA14 ∆*uhpB* | DH2459 | PA14 WT (DH2455) with in-frame deletion in *uhpB* (PA14\_07820) | (7) |
| PA14 ∆*bfiS* | DH2460 | PA14 WT (DH2455) with in-frame deletion in *bfiS* (PA14\_09680) | (7) |
| PA14 ∆*bphP* | DH2461 | PA14 WT (DH2455) with in-frame deletion in *bphP* (PA14\_10700) | (7) |
| PA14 ∆PA14\_10770 | DH2462 | PA14 WT (DH2455) with in-frame deletion in PA14\_10770 | (7) |
| PA14 ∆PA14\_11630 | DH2463 | PA14 WT (DH2455) with in-frame deletion in PA14\_11630 | (7) |
| PA14 ∆*rocS1* | DH2464 | PA14 WT (DH2455) with in-frame deletion in *rocS1* (PA14\_12820) | (7) |
| PA14 ∆*narX* | DH2465 | PA14 WT (DH2455) with in-frame deletion in *narX* (PA14\_13740) | (7) |
| PA14 ∆*wspE* | DH2466 | PA14 WT (DH2455) with in-frame deletion in *wspE* (PA14\_16470) | (7) |
| PA14 ∆PA14\_19340 | DH2467 | PA14 WT (DH2455) with in-frame deletion in PA14\_19340 | (7) |
| PA14 ∆*mxtR* | DH2468 | PA14 WT (DH2455) with in-frame deletion in *mxtR* (PA14\_21700) | (7) |
| PA14 ∆*cpxS* | DH2469 | PA14 WT (DH2455) with in-frame deletion in *cpxS* (PA14\_22730) | (7) |
| PA14 ∆*gtrS* | DH2470 | PA14 WT (DH2455) with in-frame deletion in *gtrS* (PA14\_22960) | (7) |
| PA14 ∆PA14\_24340 | DH2471 | PA14 WT (DH2455) with in-frame deletion in PA14\_24340 | (7) |
| PA14 ∆*rocS2* | DH2472 | PA14 WT (DH2455) with in-frame deletion in *rocS2* (PA14\_24720) | (7) |
| PA14 ∆PA14\_26810 | DH2473 | PA14 WT (DH2455) with in-frame deletion in PA14\_26810 | (7) |
| PA14 ∆*sagS* | DH2474 | PA14 WT (DH2455) with in-frame deletion in *sagS* (PA14\_27550) | (7) |
| PA14 ∆*copS* | DH2475 | PA14 WT (DH2455) with in-frame deletion in *copS* (PA14\_27800) | (7) |
| PA14 ∆*pfeS* | DH2476 | PA14 WT (DH2455) with in-frame deletion in *pfeS* (PA14\_29360) | (7) |
| PA14 ∆*bqsS* | DH2477 | PA14 WT (DH2455) with in-frame deletion in *bqsS* (PA14\_29740) | (7) |
| PA14 ∆PA14\_30700 | DH2478 | PA14 WT (DH2455) with in-frame deletion in PA14\_30700 | (7) |
| PA14 ∆PA14\_30840 | DH2479 | PA14 WT (DH2455) with in-frame deletion in PA14\_30840 | (7) |
| PA14 ∆*czcS* | DH2480 | PA14 WT (DH2455) with in-frame deletion in *czcS* (PA14\_31950) | (7) |
| PA14 ∆PA14\_32570 | DH2481 | PA14 WT (DH2455) with in-frame deletion in PA14\_32570 | (7) |
| PA14 ∆PA14\_36420 | DH2482 | PA14 WT (DH2455) with in-frame deletion in PA14\_36420 | (7) |
| PA14 ∆*ercS* | DH2483 | PA14 WT (DH2455) with in-frame deletion in *ercS* (PA14\_38740) | (7) |
| PA14 ∆e*xaD* | DH2484 | PA14 WT (DH2455) with in-frame deletion in *exaD* (PA14\_38910) | (7) |
| PA14 ∆*ercS’* | DH2485 | PA14 WT (DH2455) with in-frame deletion in *ercS’* (PA14\_38970) | (7) |
| PA14 ∆*parS* | DH2486 | PA14 WT (DH2455) with in-frame deletion in *parS* (PA14\_41270) | (7) |
| PA14 ∆*kdpD* | DH2487 | PA14 WT (DH2455) with in-frame deletion in *kdpD* (PA14\_43350) | (7) |
| PA14 ∆PA14\_43670 | DH2488 | PA14 WT (DH2455) with in-frame deletion in PA14\_43670 | (7) |
| PA14 ∆PA14\_45590 | DH2489 | PA14 WT (DH2455) with in-frame deletion in PA14\_45590 | (7) |
| PA14 ∆PA14\_45870 | DH2490 | PA14 WT (DH2455) with in-frame deletion in PA14\_45870 | (7) |
| PA14 ∆PA14\_46370 | DH2491 | PA14 WT (DH2455) with in-frame deletion in PA14\_46370 | (7) |
| PA14 ∆PA14\_46980 | DH2492 | PA14 WT (DH2455) with in-frame deletion in PA14\_46980 | (7) |
| PA14 ∆PA14\_48160 | DH2493 | PA14 WT (DH2455) with in-frame deletion in PA14\_48160 | (7) |
| PA14 ∆*phoQ* | DH2494 | PA14 WT (DH2455) with in-frame deletion in *phoQ* (PA14\_49170) | (7) |
| PA14 ∆PA14\_49420 | DH2495 | PA14 WT (DH2455) with in-frame deletion in PA14\_49420 | (7) |
| PA14 ∆*fleS* | DH2496 | PA14 WT (DH2455) with in-frame deletion in *fleS* (PA14\_50200) | (7) |
| PA14 ∆*pirS* | DH2497 | PA14 WT (DH2455) with in-frame deletion in *pirS* (PA14\_52240) | (7) |
| PA14 ∆*gacS* | DH2498 | PA14 WT (DH2455) with in-frame deletion in *gacS* (PA14\_52260) | (7) |
| PA14 ∆*tctE* | DH2499 | PA14 WT (DH2455) with in-frame deletion in *tctE* (PA14\_54500) | (7) |
| PA14 ∆*pprA* | DH2500 | PA14 WT (DH2455) with in-frame deletion in *pprA* (PA14\_55780) | (7) |
| PA14 ∆*colS* | DH2501 | PA14 WT (DH2455) with in-frame deletion in *colS* (PA14\_56940) | (7) |
| PA14 ∆PA14\_57170 | DH2502 | PA14 WT (DH2455) with in-frame deletion in PA14\_57170 | (7) |
| PA14 ∆*roxS* | DH2503 | PA14 WT (DH2455) with in-frame deletion in *roxS* (PA14\_58320) | (7) |
| PA14 ∆*rcsC* | DH2504 | PA14 WT (DH2455) with in-frame deletion in *rcsC* (PA14\_59780) | (7) |
| PA14 ∆*pvrS* | DH2505 | PA14 WT (DH2455) with in-frame deletion in *pvrS* (PA14\_59800) | (7) |
| PA14 ∆*pilS* | DH2506 | PA14 WT (DH2455) with in-frame deletion in *pilS* (PA14\_60250) | (7) |
| PA14 ∆*cbrA* | DH2507 | PA14 WT (DH2455) with in-frame deletion in *cbrA* (PA14\_62530) | (7) |
| PA14 ∆*pmrB* | DH2508 | PA14 WT (DH2455) with in-frame deletion in *pmrB* (PA14\_63160) | (7) |
| PA14 ∆*retS* | DH2509 | PA14 WT (DH2455) with in-frame deletion in *retS* (PA14\_64230) | (7) |
| PA14 ∆PA14\_64580 | DH2510 | PA14 WT (DH2455) with in-frame deletion in PA14\_64580 | (7) |
| PA14 ∆*aruS* | DH2511 | PA14 WT (DH2455) with in-frame deletion in *aruS* (PA14\_65860) | (7) |
| PA14 ∆*ntrB* | DH2512 | PA14 WT (DH2455) with in-frame deletion in *ntrB* (PA14\_67670 | (7) |
| PA14 ∆PA14\_68230 | DH2513 | PA14 WT (DH2455) with in-frame deletion in PA14\_68230 | (7) |
| PA14 ∆*amgS* | DH2514 | PA14 WT (DH2455) with in-frame deletion in *amgS/envZ* (PA14\_68680) | (7) |
| PA14 ∆*algZ* | DH2515 | PA14 WT (DH2455) with in-frame deletion in *algZ* (PA14\_69480) | (7) |
| PA14 ∆*phoR* | DH2516 | PA14 WT (DH2455) with in-frame deletion in *phoR* (PA14\_70760) | (7) |
| PA14 ∆*kinB* | DH2517 | PA14 WT (DH2455) with in-frame deletion in *kinB* (PA14\_72390) | (7) |
| PA14 ∆PA14\_72740 | DH2518 | PA14 WT (DH2455) with in-frame deletion in PA14\_72740 | (7) |
| PA14 ∆*rhlR* | DH2742 | PA14 WT (DH122) with in-frame deletion of *rhlR* | (8) |
| PA14 *∆anr* | DH2855 | PA14 WT (DH122) with in-frame deletion of *anr* (PA14\_44490) | (9) |
| PA14 ∆*cbrB* | DH3920 | PA14 WT (DH122) with in-frame deletion of *cbrB* (PA14\_62540) | This study |
| PA14 *cbrB*::Tn*M* | DH3921 | *cbrB MAR2xT7* transposon insertion mutant | (10, 11) |
| NC-AMT0101-1-2 | DH2417 | Chronic CF lung infection isolate with functional LasR allele | (12) |
| NC-AMT0101-1-2 ∆*cbrB* | DH3922 | CF clinical isolate (DH2417) with in-frame deletion of *cbrB* (PA14\_62540) | This study |
| PA14 ∆*crc* | DH3737 | PA14 WT (DH122) with in-frame deletion of *crc* (PA14\_70390) | This study |
| PA14 ∆*crc* + *crc* | DH3738 | PA14 ∆*crc* (DH3737) with complementation of *crc* (PA14\_70390)at the native locus | This study |
| PA14 *∆lasR + lasR* | DH3549 | PA14 ∆*lasR* (DH164) with complementation of *lasR* (PA14\_45960) at the native locus | (13) |
| PA14 ∆*cbrB* + pMQ70 *cbrB* | DH3923 | PA14 ∆*cbrB* (DH3920) expressing arabinose inducible pMQ70 *cbrB* expression vector | This study |
| PA14 *∆lasR*∆*cbrB* | DH3924 | PA14 ∆*lasR* (DH164) with in-frame deletion of *cbrB* (PA14\_62540) | This study |
| PA14 *∆lasR*∆*cbrB* + *cbrB* | DH3925 | PA14 ∆*lasR*∆*cbrB* (DH3924) with complementation of *cbrB* (PA14\_62540)at the native locus | This study |
| PA14 *∆lasR*∆*cbrB∆crc* | DH3926 | PA14 ∆*lasR*∆*cbrB* (DH3924) with in-frame deletion of *crc* (PA14\_70390) | This study |
| PA14 *∆lasR∆crc* | DH3927 | PA14 ∆*lasR* (DH164) with in-frame deletion of *crc* (PA14\_70390) | This study |
| PA14 *∆lasR∆crc* + *crc* | DH3928 | PA14 ∆*lasR*∆*crc* (DH3927) with complementation of *crc* (PA14\_70390)at the native locus | This study |
| PA14 + pMQ72 EV | DH3929 | PA14 WT (DH122) expressing pMQ72 empty vector | This study |
| PA14 + pMQ70 *cbrB* | DH3930 | PA14 WT (DH122) expressing arabinose inducible pMQ70 *cbrB* expression vector | This study |
| PA14 + pMQ72 *crcZ* | DH3932 | PA14 WT (DH122) expressing arabinose inducible pMQ72 *crcZ* expression vector | This study |
| *E. coli* |  |  |  |
| S17 λpir | DH71 | Used as a conjugation partner for introducing pMQ30 plasmids. |  |
| DH5a | DH51 | Used to store/replicate plasmids. | Invitrogen |
| Plasmids |  |  |  |
| pMQ30 EV | DH962 | Allelic replacement vector, GmR | (14) |
| pMQ72 EV | DH3773 | Arabinose inducible expression vector, GmR | (14) |
| pMQ70 EV | DH1682 | Arabinose inducible expression vector, AmpR | (14) |
| pMQ30*\_rhlR\_*KO | DH2943 | *rhlR* (PA14\_19120) in-frame deletion construct; GmR | This study |
| pMQ30*\_cbrB\_*KO | DH3512 | *cbrB* (PA14\_62540)in-frame deletion construct; GmR | This study |
| pMQ30*\_crc\_*KO | DH3692 | *crc* (PA14\_70390) in-frame deletion construct; GmR | This study |
| pMQ30*\_cbrB\_*KON | DH3467 | *cbrB* (PA14\_62540)native locus complementation construct; GmR | This study |
| pMQ30*\_crc\_*KON | DH3511 | *crc* (PA14\_70390) native locus complementation construct; GmR | This study |
| pMQ72*\_crcZ* | DH3931 | Vector for arabinose-inducible gene expression of *crcZ*; GmR | This study |
| pMQ70*\_cbrB* | DH3691 | Vector for arabinose-inducible gene expression of *cbrB* (PA14\_62540); CarbR | This study |
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