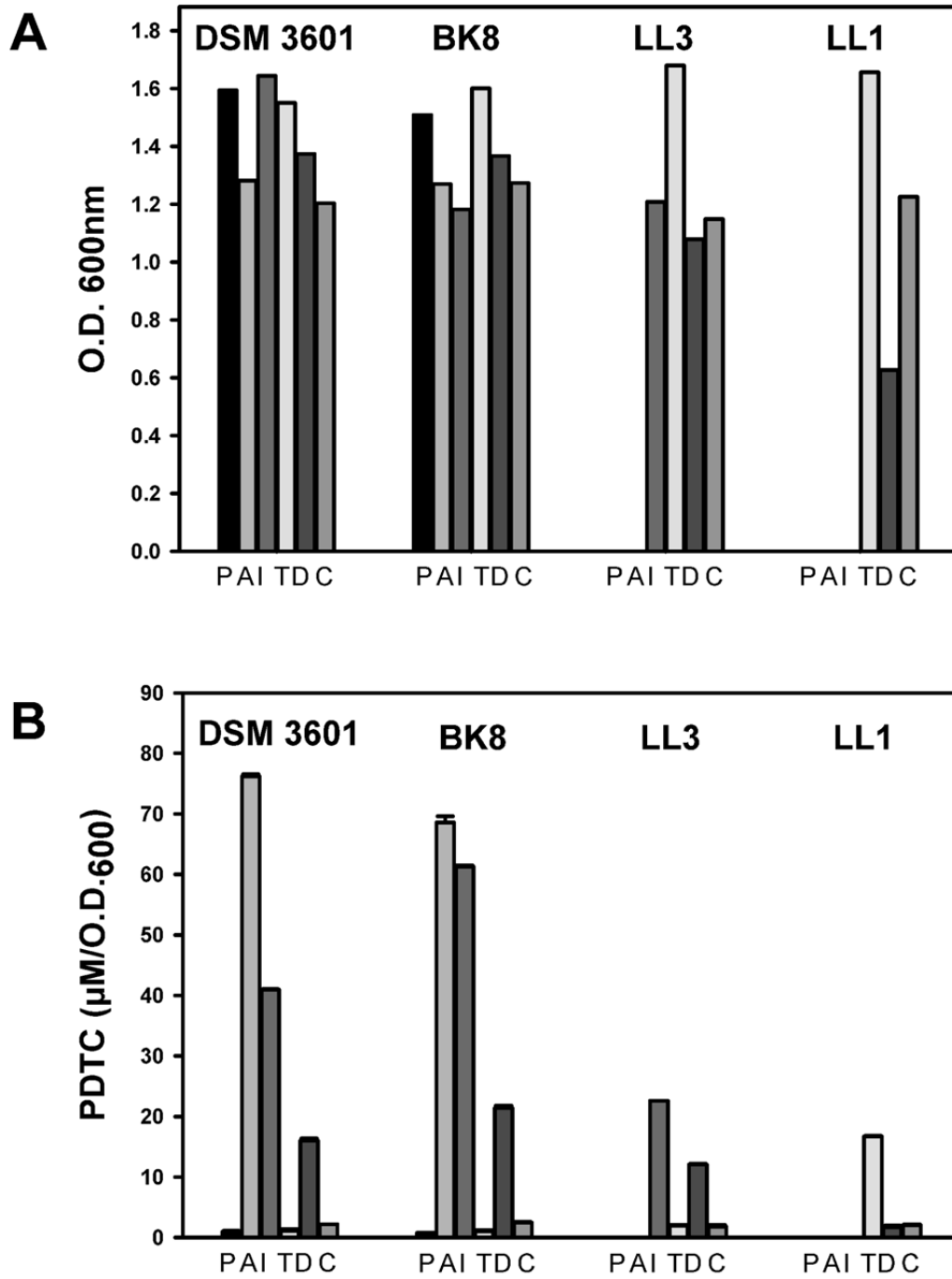


1 **Supplementary Material**

2 **Figure S1**

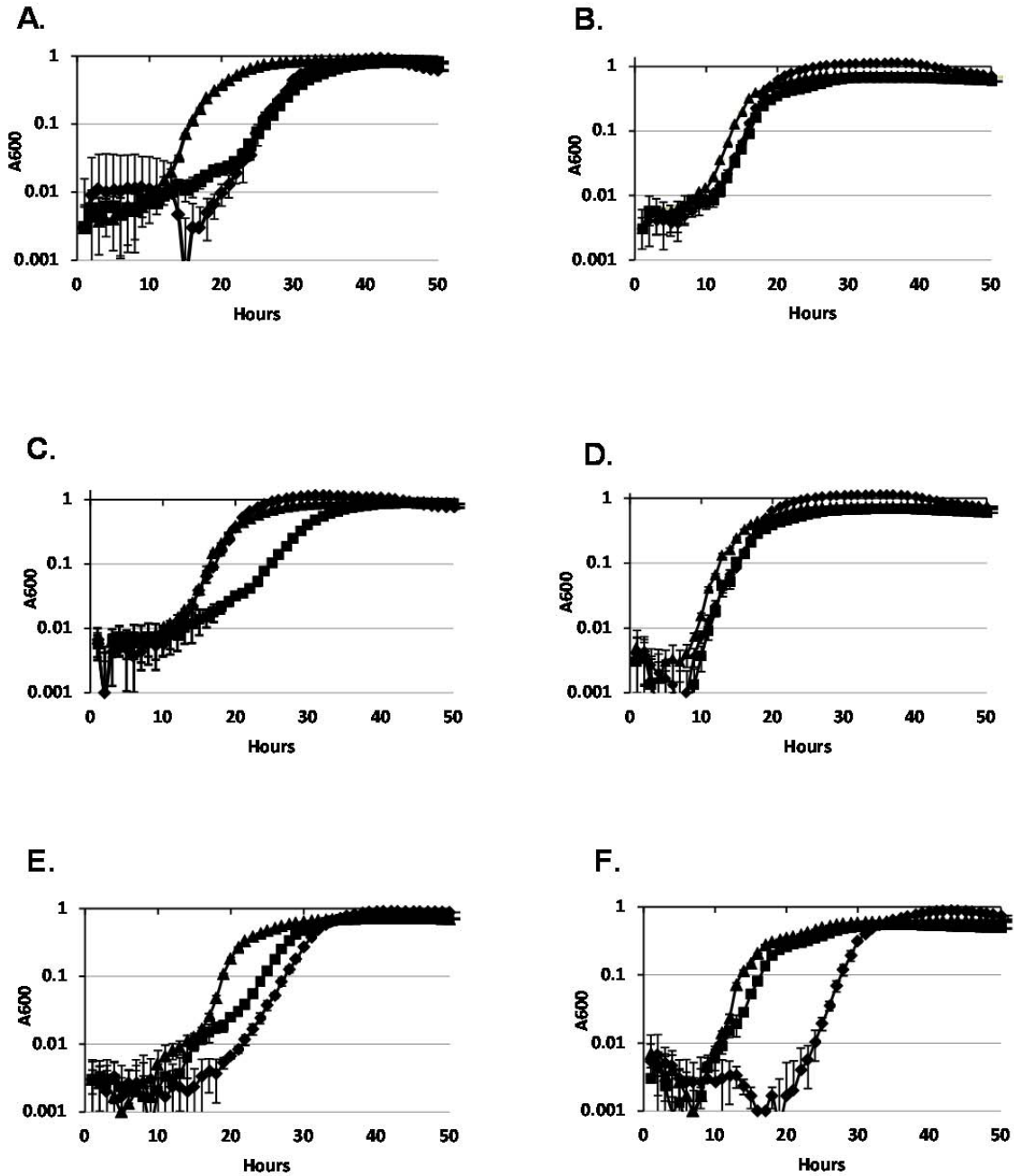
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4

1 **Figure S1.** Growth and PDTC production by wild type and Cys mutants; effect of sulfur
2 source. A, growth; B, PDTC production. Letters below bars indicate sulfur sources
3 (1mM): P, PIPES; A, sulfate; I, sulfite; T, thiosulfate; D, sulfide; C, cysteine. Data are
4 grouped by strains, as listed above bars. Strains used were DSM 3601 (wt), BK8 (*pfrI*
5 parental strain), LL3 (*pfrI cysNC*), and LL1 (*pfrI cobA2*). Error bars in B are standard
6 deviations of triplicate parallel experiments. For reasons we have not yet explained, no
7 growth was seen for the *cysNC* mutant with 1mM PIPES, but growth is observed at high
8 (100mM) PIPES concentrations (as in the CAS screening medium).

1 Figure S2
2



3

4 **Figure S2.** Arabinose-inducible *P. aeruginosa fprA* restores cysteine prototrophy to a *P.*

5 *putida finR* mutant, and *E. coli cysJI* has a toxic effect on *P. putida* grown on minimal

1 medium. A, C, E, *finR* mutant SO3B9. (A), pJN105 (vector control); (C),
2 pJN105::*fprA*_{PA}; (E), pJN105::*cysJI*_{Ec}. B, D, F, WT strain DSM3601. (B), pJN105 ; (D),
3 pJN105::*fprA*_{PA}, (F), pJN105::*cysJI*_{Ec}. Cultures were grown in M9 succinate medium
4 with the following sulfur sources/inducer: ▲, 0.5mM cystine; ■, 1mM sulfate; ◆ 1mM
5 sulfate/0.5% arabinose. Data are means of triplicate cultures. Error bars represent
6 standard deviations.
7