**Supplementary file 4.** Plasmids.

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| **Plasmid** | **Genotype** | **Source** |
| pRLG770 | In vitro transcription vector, AmpR | *Ross et al., 1990* |
| pRLG13065 | pRLG770 with *rrnB* P1 (−88 to +50) | *Ross et al.,2016* |
| pRLG13098 | pRLG770 with *argI* (−45 to +32) | *Barker et al.,2001* |
| pRLG13099 | pRLG770 with *hisG* (−60 to +1) | *Paul et al.,2005* |
| pRLG14658 | pRLG770 with *rpsT* P2 (−89 to +50) | *Lemke et al., 2011* |
| pRLG15142 | pET28a-His10-SUMO *traR*, KanR | Present study |
| pRLG15276 | pRLG770 with *thrABC* (-72 to +16) | *Barker et al.,2001* |
| pIA331 | pT7 αββ'(Δ943-1130) (∆Si3 RNAP) | *Artsimovitch et al., 2003* |
| pRLG15299 | *rpoB* Δ225–343ΩGG (∆Si1 RNAP) | *Gopalkrishnan et al., 2017* |
| pRLG14844 | pET28a-His6 P43A *traR*, KanR | *Gopalkrishnan et al., 2017* |
| pRLG14846 | pET28a- His6 P45A *traR*, KanR | *Gopalkrishnan et al., 2017* |
| pRLG14847 | pET28a-His6 E46A *traR*, KanR | *Gopalkrishnan et al., 2017* |
| pRLG15278 | pET28a-His10-SUMO R49A *traR*, KanR | Present study |
| pRLG15279 | pET28a-His10-SUMO K50A *traR*, KanR | Present study |
| pEcrpoABC(-XH)Z | Encodes *Eco* RNAP RpoA, B, C-PPX-His10, Z, AmpR | *Twist et al., 2011* |
| pACYCDuet-1\_Ec\_rpoZ | Encodes *Eco* RNAP rpoZ, CamR | *Twist et al., 2011* |
| pSAD1403 | pET28a-His10-SUMO*rpoD*, KanR | *Chen et al., 2017* |
| pSAD1406 | pET28a-His10-SUMO *rpoD (*∆1-93*) (*∆1.1 σ70), KanR | *Chen et al., 2017* |