**Supplementary Table S1. List of Plasmids, Strains, and Primers**

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| **Construct Plasmid** | **Relevant genotype** | **Ori** | **Source of Reference** |
| pBOMBL12CRia::L2 | *bla* PNm::*gfp* Ptet::As\_dCas12vaa | pUC19 | (Ouellette et al., 2021) |
| pBOMBL12CRia(NT)::L2 | *bla* PNm::*gfp* Ptet::As\_dCas12vaa  P*dnaKmut*::As\_crRNA\_NT | pUC19 | (Reuter et al., 2023) |
| pBOMBL12CRia(*ahpC*)::L2 | *bla* PNm::*gfp* Ptet::As\_dCas12vaa  P*dnaKmut*::As\_crRNA\_*ahpC* | pUC19 | This study |
| pBOMBL12CRia(*ahpC)*- *ahpC*::L2 | *bla* PNm::*gfp* Ptet::As\_dCas12vaa- *ahpC*  P*dnaKmut*::As\_crRNA\_*ahpC* | pUC19 | This study |
| pBOMB-G::L2 | *bla* P*tet*::mCherry | pUC19 | (Wood et al., 2020) |
| pBOMBDC::L2 | *bla* P*tet*::mCherry PhctB\_mKate Peuo\_nGreen | pUC19 | This study |
| pBOMBDC-*ahpC*::L2 | *bla* P*tet*::*ahpC* PhctB\_mKate Peuo\_nGreen | pUC19 | This study |
| pBOMBL12CRia::L2 (spec) | *aadA* PNm::*gfp* Ptet::As\_dCas12vaa | pUC19 | (Shen et al., 2024) |
| pBOMBL12CRia(*ahpC*)::L2 (spec) | *aadA* PNm::*gfp* Ptet::As\_dCas12vaa  P*dnaKmut*::As\_crRNA\_*ahpC* | pUC19 | This study |

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| ***E. coli* Strain** | **Relevant genotype** | **Source of Reference** |
| NEB10-beta | *Δ(ara-leu) 7697 araD139 fhuA ΔlacX74 galK16 galE15 ϕ80dlacZΔM15 (e14-) recA1 relA1 endA1 nupG rpsL (*StrR*) rph spoT1 Δ(mrr-hsdRMS-mcrBC)* | New England BioLabs |

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| **Primer name** | **Sequence** | **Features** | **Usage** |
| PhctB\_mK/(pB-G)/5’LIC | ctggccttttgctcacatggaattgTGTTAAAAACTAACCATTTTTTATTAAAG | Insert PhctB\_mKate into pBOMB-G; overlaps Peuo\_nGreen | Generate pBOMBDC::L2 |
| PhctB\_mK/(Peuo)/3’LIC | tttgttaaaaataCGTCTTAGGAGCTTTTTG | Insert PhctB\_mKate into pBOMB-G; overlaps Peuo\_nGreen | Generate pBOMBDC::L2 |
| Peuo\_nG/(mK)/5’LIC | agctcctaagacgTATTTTTAACAAACCACTTGATTAATAAG | Insert Peuo\_nGreen into pBOMB-G; overlaps PhctB\_mKate | Generate pBOMBDC::L2 |
| Peuo\_nG/(pB-G)3’LIC | ttgccagaaaaaacacctttaggcgCTAAGCTACTAAAGCGTAGTTTTC | Insert Peuo\_nGreen into pBOMB-G; overlaps PhctB\_mKate | Generate pBOMBDC::L2 |
| *ahpC*/(pBOMB)/5'LIC | gatctaaagaggagaaaggatctgcATGCCAGCTATGCGCCTTATTG | lower case for plasmid overlap construction | for amplification of *ahpC* into pBOMBDC |
| *ahpC*/(pBOMBDC)3’LIC | acatatttgaatggtcgaccggtacTTAATCCATCGTCTGGAAG | lower case for plasmid overlap construction | for amplification of *ahpC* into pBOMBDC |
| *ahpC*/(pBOMBL12CRia)/F | cgcaacgtagctgcttaagtaccggaggaatctgcATGGGATCATTAGTTGGAAG | lower case for plasmid overlap construction | For insertion of *ahpC* 3’ of *dCas12* in pL12CRia |
| *ahpC*(pBOMBL12CRia)/R | catgagcggatacatatttgaatggTTAATCCATCGTCTGGAAG | lower case for plasmid overlap construction | For insertion of *ahpC* 3’ of *dCas12* in pL12CRia |
| ct603 *ahpC* | TCCGTTGACGACATTGAGAC | Forward qPCR primer | For qPCR of *ahpC* |
| ct603 *ahpC* | AGGGTCTGCTAACAGAGGATA | Reverse qPCR primer | For qPCR of *ahpC* |
| ct443 *omcB* | CGGTAGGATCTCCCTATCCTATT | Forward qPCR primer | For qPCR of *omcB* |
| ct443 *omcB* | CGAACTCTGCTTCACATGGTA | Reverse qPCR primer | For qPCR of *omcB* |
| ct743 *hctA* | AAGCTAAAGCTGCTGCTAAGA | Forward qPCR primer | For qPCR of *hctA* |
| ct743 *hctA* | GTTGGTTTGACCTTTGCTTTAGT | Reverse qPCR primer | For qPCR of *hctA* |
| ct046 *hctB* | AACTGTAGCAGCTCGTAAGC | Forward qPCR primer | For qPCR of *hctB* |
| ct046 *hctB* | TTTGCGAGCTACAGTCTTCTT | Reverse qPCR primer | For qPCR of *hctB* |
| ct798 *glgA* | GAGCAGAAAGGTCCTCACTTTA | Forward qPCR primer | For qPCR of *glgA* |
| ct798 *glgA* | TCCCGTAGCAGGTACCTATAAT | Reverse qPCR primer | For qPCR of *glgA* |
| ct441 *tsp* | GTAGCCTTCGTGTAGGTGATATT | Forward qPCR primer | For qPCR of *tsp* |
| ct441 *tsp* | AGGATCCTGGAGAACCTCTT | Reverse qPCR primer | For qPCR of *tsp* |

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| **gBlock Name** | **Sequence** | **Features** | **Usage** |
| *ahpC\_*IGR crRNA | tgtgaaagtgggtcttaagacgtcggtactgcatgtgacgcacgtagatcatgca*TTCACCGGTGGAGACGGTTTTCTTATAATGACACC*TAATTTCTACTCTTGTAGAT**TAGGAGGAGTACTATGGGATC**CAAATAAAACGAAAGGCTCAGTCGAAAGACTGGGCCTTTCGTTTTATcaacagcggtctactgaatctgagctagtgcgtgatataattaaaattatattca | Lower case for plasmid overlap and spacer, *italicized* for PdnaKmut promoter sequence, underlined for crRNA scaffold, **bold** for *ahpC*\_IGR targeting sequence, Upper case for rrnB1 terminator | Insert into BamHI-digested pBOMBL12CRia::L2 plasmid |

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