

**Supplementary table 1. The list of Strains, Plasmids and Primers**

Construct Plasmid	Relevant genotype	Ori	Source of Reference
pBOMB4-Tet::L2	<i>bla P<sub>tet</sub>::mCherry P<sub>Nmen</sub>::gfp</i>	pUC19	1
pBOMBL::L2	<i>bla P<sub>tet</sub>::mCherry (weakened RBS) P<sub>Nmen</sub>::gfp</i>	pUC19	This study
pBOMBL-Sa_dCas9vaa::L2	<i>bla P<sub>tet</sub>::Sa_dCas9_VAA P<sub>Nmen</sub>::gfp</i>	pUC19	This study
pBOMBLCRia::L2 (incA IGR)	<i>bla P<sub>tet</sub>::Sa_dCas9_VAA P<sub>dnaKmu</sub>::Sa_gRNA P<sub>Nmen</sub>::gfp</i>	pUC19	This study
pBOMBLCRia-incA_FLAG::L2 (incA IGR)	<i>bla P<sub>tet</sub>::Sa_dCas9_VAA-incA_FLAG P<sub>dnaKmu</sub>::Sa_gRNA P<sub>Nmen</sub>::gfp</i>	pUC19	This study
pBOMBL-As_dCas12vaa::L2	<i>bla P<sub>tet</sub>::As_dCas12_VAA P<sub>Nmen</sub>::gfp</i>	pUC19	This study
pBOMBL12CRia::L2 (incA IGR)	<i>bla P<sub>tet</sub>::As_dCas12_VAA P<sub>dnaKmu</sub>::As_crRNA P<sub>Nmen</sub>::gfp</i>	pUC19	This study

Strain	Relevant genotype	Source of Reference
<i>dam-/dcm-</i>	<i>ara-14 leuB6 fhuA31 lacY1 tsx78 glnV44 galK2 galT22 mcrA dcm-6 hisG4 rfbD1 R(zgb210::Tn10) Tet<sup>S</sup> endA1 rpsL136 (Str<sup>R</sup>) dam13::Tn9 (Cam<sup>R</sup>) xylA-5 mtl-1 thi-1 mcrB1 hsdR2</i>	New England Biolabs
NEB10β	<i>araD139 Δ(ara-leu)7697 fhuA lacX74 galK (φ80 Δ(lacZ)M15) mcrA galU recA1 endA1 nupG rpsL (Str<sup>R</sup>) Δ(mrr-hsdRMS-mcrBC)</i>	New England Biolabs

Primer name	Sequence	Features	Usage
Ptet+tetR/(pBOMB)/5'LIC	ttaattatatcacggatccgacgtCTTAA GACCCACTTTCACATTAAAG	lower case for plasmid overlap construction	To insert weakened RBS in <i>AatII/PstI</i> -digested pBOMB
Ptet+tetR/(pBOMB)/3'LIC	tagtactttcctgtgtgaAGATCTTGAA TTCTTTCTCTATC	lower case for plasmid overlap construction	To insert weakened RBS in <i>AatII/PstI</i> -digested pBOMB
mCherry/(pBOMB)/3'LIC	tttgaatggtcgaccgg tacctgcaGTTAT TTGTACAGCTCATCCATGC	lower case for plasmid overlap construction	To insert weakened RBS in <i>AatII/PstI</i> -digested pBOMB
mCherry/(pBOMB)L/5'LIC	attcaaaaagatcttacacaggacatctgc GGCCCGATGGTCTCTAAG	lower case for plasmid overlap construction	To insert weakened RBS in <i>AatII/PstI</i> -

			digested pBOMB
Sa_dCas9/(pBOMB L)/5'LIC	aaagatttcacacaggacatctgcATGAA CGGAACTACATCCTG	lower case for plasmid overlap construction	To insert Sa_dCas9vaa into <i>EagI/KpnI</i> -digested pBOMBL
Sa_dCas9vaa/(pBOM BL)/3'LIC	acatatttgaatggtcgaccggtaactTATG CTGCTACGCCCTTTG	lower case for plasmid overlap construction, adds VAA to 3' end of dCas9	To insert Sa_dCas9vaa into <i>EagI/KpnI</i> -digested pBOMBL
ddAsCpf1/(pBOM BL)/5'LIC	aaagatttcacacaggacatctgcATGAC ACAGTTCGAGGGCTTTAC	lower case for plasmid overlap construction	To insert As_dCas12va a into <i>EagI/KpnI</i> -digested pBOMBL
ddAsCpf1vaa/(pBOM BL)/3'LIC	acatatttgaatggtcgaccggtaacttaag cagctacGTTGCGCAGCTCCTGGATG	lower case for plasmid overlap construction, adds VAA to 3' end of dCas12	To insert As_dCas12va a into <i>EagI/KpnI</i> -digested pBOMBL
Sa_dCas9vaa/(incA )/3'LIC	tcatgcagattctcctcTTATGCTGCTACG CCCTTTTG	lower case for plasmid overlap construction with incA-FLAG	To insert Sa_dCas9vaa-incA_FLAG into <i>EagI/KpnI</i> -digested pBOMBL
incA/(dCas9vaa)/5' LIC	cgttagcagcataagaggagaatctgcATGA CAACGCCTACTCTAAC	lower case for plasmid overlap construction with Sa_dCas9vaa	To insert Sa_dCas9vaa-incA_FLAG into <i>EagI/KpnI</i> -digested pBOMBL
incA_FLAG/(pBOM BL)/3'LIC	acatatttgaatggtcgaccggtaacttact tatcgctgtcatccttgttagtcGGAGCTTT TTGTAGAGGG	lower case for plasmid overlap construction, adds FLAG to incA sequence	To insert Sa_dCas9vaa-incA_FLAG into <i>EagI/KpnI</i> -digested pBOMBL
ct119 incA F	TCTGATCGCTCCACAAATCAC	qPCR primer	for RT-qPCR of <i>incA</i>
ct119 incA R	CTTCTCTTGCAGATCCTGGTATA	qPCR primer	for RT-qPCR of <i>incA</i>
ct706 clpP2 F	GTTAGCGATTACGACACCATT	qPCR primer	for RT-qPCR of <i>clpP2</i>

ct706 clpP2 R	CCCTTGTCCTGCAGATAATA	qPCR primer	for RT-qPCR of <i>clpP2</i>
ct446 euo F	CGAAGACTACTCGTTGGGAAATA	qPCR primer	for RT-qPCR of <i>euo</i>
ct446 euo R	AACAGAAGCTCTCCTTGATAAGT	qPCR primer	for RT-qPCR of <i>euo</i>
ct443 omcB F	CGGTAGGATCTCCCTATCCTATT	qPCR primer	for RT-qPCR of <i>omcB</i>
ct443 omcB R	CGAACTCTGCTTCACATGGTA	qPCR primer	for RT-qPCR of <i>omcB</i>
ct110 groEL1 F	CGGCCGTCCTCTTCTTATTATAG	qPCR primer	for qPCR of <i>groEL1</i>
ct110 groEL1 R	GGAGCTTTAACTGCGCAAAC	qPCR primer	for qPCR of <i>groEL1</i>

gBlock name	Sequence	Features	Usage
incA_IGR-targeting gRNA gBlock cassette	tgtgaaagtgggtcttaagacgtcggtactgcgttgacgcac gtagatcatgca <u>TTCACCGGTGGAGACGGTT</u> <u>TCTTATAATGACACCAATT</u> <u>TTTATCATATA</u> <b>TAAAGCCC<u>GTTTAGTACTCTGGAAA</u></b> <u>CAGAACATCTACTAAAACAAGGCAAAT</u> <u>GCCGTGTTTATCTCGTCAACTTGTGG</u> <u>CGAGATTTTCAAATAAAACGAAAGG</u> CTCAGTCGAAAGACTGGGCCTTCGT TTTATcaacagcggtctactgaatctgagcttagtgcgtgat ataattaaaattatattca	Lower case for plasmid overlap and spacer, <i>italicized</i> for P <sub>dnaKmut</sub> promoter sequence, <b>bold</b> for incA_IGR targeting sequence, <u>underlined</u> for gRNA scaffold, Upper case for rrnB1 terminator	Insert into BamHI-digested pBOMBL-Sa_dCas9v aa::L2 plasmid with or without incA_FLA G complementation
incA_IGR-targeting crRNA gBlock cassette	tgtgaaagtgggtcttaagacgtcggtactgcgttgacgcac gtagatcatgca <u>TTCACCGGTGGAGACGGTT</u> <u>TCTTATAATGACACCAATT</u> <u>TTTACTCTT</u> <b>GTAGATTCA<u>TTAAAGTTCTCTGAAA</u></b> <u>CAAATAAAACGAAAGGCTCAGTCGAA</u> AGACTGGGCCTTCGT <u>TTTATcaacagcggtctactgaatctgagcttagtgcgtgatataattaaaattatattca</u>	Lower case for plasmid overlap and spacer, <i>italicized</i> for P <sub>dnaKmut</sub> promoter sequence, <u>underlined</u> for crRNA scaffold, <b>bold</b> for incA_IGR targeting sequence, Upper case for rrnB1 terminator	Insert into BamHI-digested pBOMBL-As_dCas1 2vaa::L2 plasmid

1 Bauer, L. D. & Hackstadt, T. Expression and targeting of secreted proteins from Chlamydia trachomatis. *J Bacteriol* **196**, 1325-1334, doi:10.1128/JB.01290-13 (2014).