Table S1. Primers used in this study

Primer	Oligo sequence (5′ to 3′)[a]	Purpose[b]
RT-PCR		
KM1309	gatgaccgagcttagcgagc	*sigA* internal; For
KM1310	cgtaggtggagaacttgtacc	*sigA* internal; Rev
JY380	cccgcggcgctaagactctc	*csm3* internal; For
JY381	gcgatggcgttgaagtcctc	*csm3* internal; Rev
JY425	ttggctgctcgccgaggcgg	*cas6* internal (P1); For
JY426	ttgacctggatttcaccaac	*cas6* internal (P2); For
JY427	atgacggaacacttgtcgcg	*cas6* internal (P3); For
JY428	actgtacgggttcaccggc	*cas6* internal (P4); Rev
KM1229	ggatcctatgcgcgtcctgtccattc	*serC*-Rv0885 inergenic; For
KM1230	ggatcctggtcggccatgccatca	*serC*-Rv0885 inergenic; Rev
Promoter construction		
JY392	tttggatccctgggcggcatcgcttggg	Putative *cas6* promoter (annotated); For
JY393	tttggatccgccgcctcggcgagcagccaa	Putative *cas6* promoter (annotated); Rev
JY432	tttggatccattggcggcgccatcctccg	Putative *cas6* promoter (identified); For
JY433	tttggatcccgcgacaagtgttccgtcat	Putative *cas6* promoter (identified); Rev
5' RACE		
JY532	ggccacgcgtcgactagtacgggiigggiigggiig	Abridged anchor primer
JY533	ggccacgcgtcgactagtac	Abridged universal amplification primer
JY534	cgtgacctgtgtcgctatcc	*cas6* gene specific primer
JY535	ctcgcacggagccgaaaacc	*cas6* nest PCR primer
Deletion of Rv1357c		
JY007	gatatcccgacacgcggccgcatagg	Rv1357c upstream homolog; For
JY008	aagcttccaagggctgcatcaggattc	Rv1357c upstream homolog; Rev
JY009	tctagagtcgcgtgggtgtagatcg	Rv1357c downstream homolog; For
JY010	ggtaccccacccggacttcacttcc	Rv1357c downstream homolog; Rev
JY011	cacgcactctcgttgatcg	Verify Rv1357c upstream crossover
JY002	tcgacgacctgcaggcatgc	Verify Rv1357c upstream crossover; Rev
JY003	actggcgcagttcctctggg	Verify Rv1357c downstream crossover; For
JY012	gggacatgcttagcggtagg	Verify Rv1357c downstream crossover; Rev
JY013	cgtctaccagccaatcatcc	Rv1357c internal; For
JY014	gacgttgacgctgacaaacg	Rv1357c internal; Rev
Northern blot probe		
JY524	gtttccgtcccctctcggggttttgggtctga	CRISPR repeats specific oligo
JY525	cgacacccaggatcacaacctggtgctctacc	His-tRNA probe
KM887	tgaaagaggtttacaacccg	16S rRNA probe
Expression of *orn* in mycobacteria		
JY388	tttggtaccagtgccaatgaaaacaacctg	*orn* ORF; For
JY389	tttggtaccgaccaggaaaaattttacag	*orn* ORF; Rev
Overexpression of *orn* in *E. coli*		
JY518	tttcatatgatgagtgccaatgaaaacaac	*orn* ORF; For
JY519	tttaagcttcgtgaccaggaaaaatttta	*orn* ORF; Rev

[a] The restriction site is underlined if presents in an oligo.

[b] For, forward primer; Rev, reverse primer.

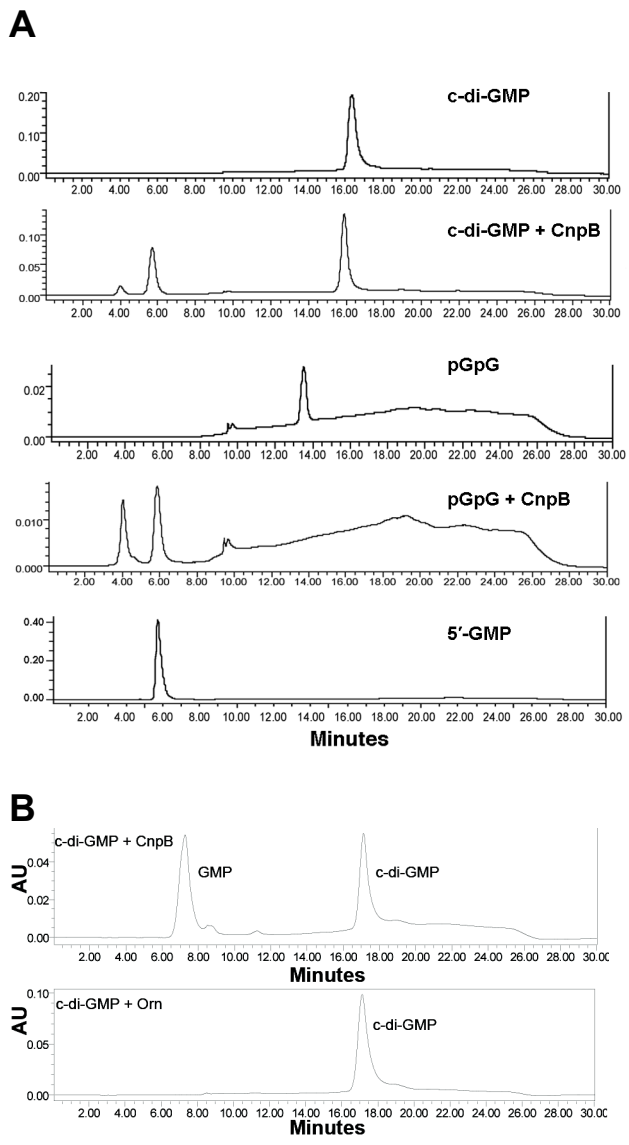

Fig. S1. Cleavage of c-di-AMP, c-di-GMP, pApA and pGpG by the same concentration of CnpB determined using HPLC. Purified c-di-AMP, c-di-GMP, pApA, pGpG, 5'-AMP, and 5'-GMP were used as standards. The result showed that CnpB also cleaves c-di-GMP and pGpG, which is much weakly compared to the cleavage of c-di-AMP (**A**). However, Orn did not hydrolyze c-di-GMP, similarly to c-di-AMP (**B**).

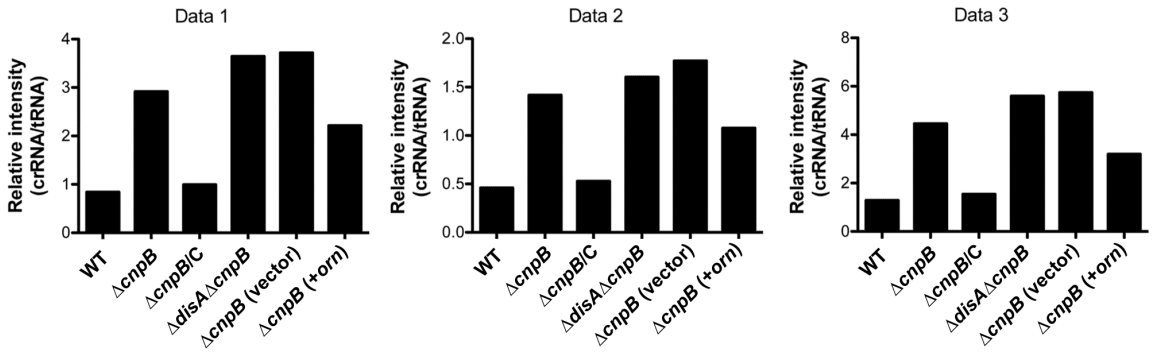

Fig. S2. Quantitation of Northern blot results as represented in Fig. 7. The intensity of the same area of crRNA bands in each sample was determined using ImageJ. Meanwhile, the intensity of the same area of the related tRNA band was examined. The relative intensity was calculated by normalizing the intensity of the crRNA bands with that of the related tRNA band.