

**Figure S1. Nucleotide sequence of the *bla*<sub>GES</sub> used to design the GES-LAMP (A) and Carba-GES-LAMP (B) primer sets.** The sequences used for the LAMP primers are indicated by arrows. (A) and (B) in the figure are the sequences of *Pseudomonas aeruginosa*  $\beta$ -lactamase GES-1 (GenBank accession number, AF355189.1) and GES-5 (GenBank accession number, EF190326.1) genes, respectively.

(A)

No	211	280
Sequence	GCCGCGCTGG TCTTTGAAAG AATTGACTCA GGCACCGAGC GGGGGGATCG AAAACTTTCA TATGGGCCGG	
No	281	350
Sequence	ACATGATCGT CGAATGGTCT CCTGCCACGG AGCGGTTTCT AGCATCGGGA CACATGACGG TTCTCGAGGC	
Primer	-----F3----->	-----F2-----> <-----LF-----
No	351	420
Sequence	AGCGCAAGCT GCGGTGCAGC TTAGCGACAA TGGGGCTACT AACCTCTTAC TGAGAGAAAT TGGCGGACCT	
Primer	---  <-----F1-----	-----B1-----
No	421	490
Sequence	GCTGCAATGA CGCAGTATTT TCGTAAAATT GCGGACTCTG TGAGTCGGCT AGACCGGAAA GAGCCGGAGA	
Primer	---->  -----LB----->	<-----B2-----  <-----
No	491	560
Sequence	TGGGCGACAA CACACCTGGC GACCTCAGAG ATACAACCTAC GCCTATTGCT ATGGCACGTA CTGTGGCTAA	
Primer	----B3-----	
No	561	630
Sequence	AGTCCTCTAT GCGGGCGCAC TGACGTCCAC CTCGACCCAC ACCATTGAGA GGTGGCTGAT CGGAAACCAA	

(B)

No 211 280  
Sequence GCCGCGCTGG TCTTTGAAAG AATTGACTCA GGCACCGAGC GGGGGGATCG AAAACTTTCA TATGGGCCGG

No 281 350  
Sequence ACATGATCGT CGAATGGTCT CCTGCCACGG AGCGGTTTCT AGCATCGGGA CACATGACGG TTCTCGAGGC

No 351 420  
Sequence AGCGCAAGCT GCGGTGCAGC TTAGCGACAA TGGGGCTACT AACCTCTTAC TGAGAGAAAT TGGCGGACCT  
Primer |-----F3-----> |-----F2-----

No 421 490  
Sequence GCTGCAATGA CGCAGTATTT TCGTAAAATT GCGGACTCTG TGAGTCGGCT AGACCGGAAA GAGCCGGAGA  
Primer ><-----LF-----| <-----F1-----|

No 491 560  
Sequence TGAGCGACAA CACACCTGGC GACCTGAGAG ATACAACACTAC GCCTATTGCT ATGGCACGTA CTGTGGCTAA  
Primer |-----B1----->|-----LB-----><-----B2-----|<-----

No 561 630  
Sequence AGTCCTCTAT GCGGCGCAC TGACGTCCAC CTCGACCCAC ACCATTGAGA GGTGGCTGAT CGGAAACCAA  
Primer <-----B3-----|