

SUPPLEMENTAL MATERIAL

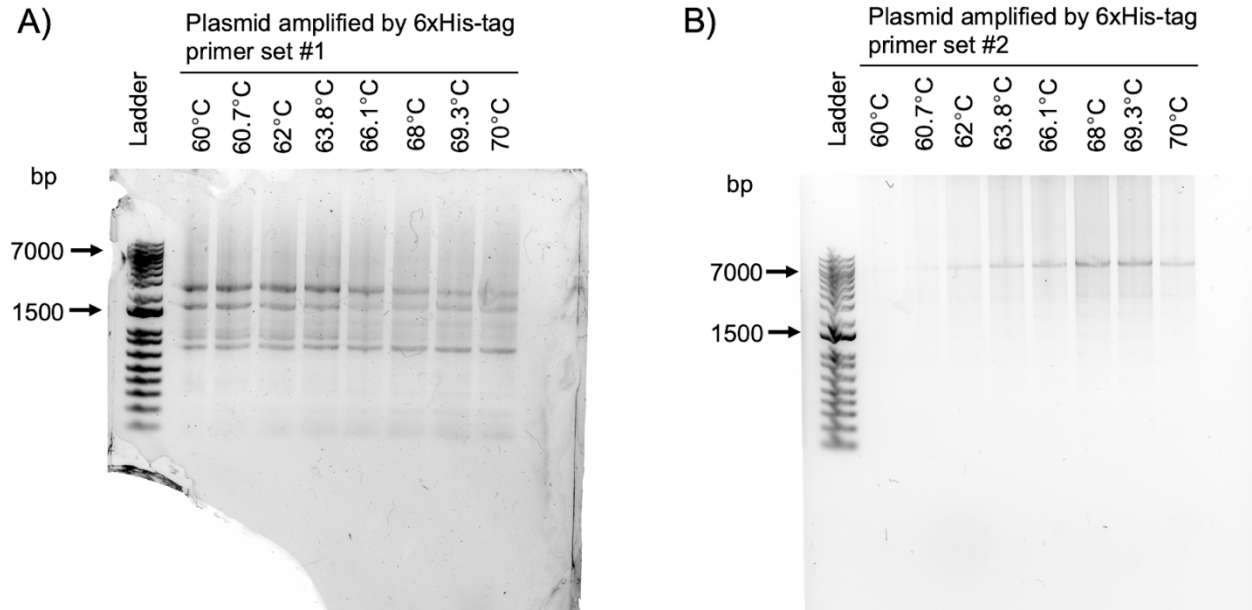


FIG. S1 1% agarose gel electrophoresis image of temperature (60 - 70°C) gradient PCR of *brkA*-containing pDO6935 using 6xHis-tagged containing two sets of primer designs. A) Multiple DNA bands were observed. Primer set 1 forward primer *liota_Fw1* 5'-atggtgatgCGCCGCCGCGGGCGCCA and reverse primer *liota_Rv1* 5'-caccatcacCAGGCGCCGCAGCCGCC. B) One band on target position was observed. Primer set 2 forward primer *liota_Fw2* 5'-gtgatggtgatggtgatgCGCCGCCGCGGGCGCCA and reverse primer *liota_Rv2backup* 5'-catcaccatcaccatcacCAGGCGCCGCAGCCGCC. A-B) Primer concentration was 200nM for primer set 1 and 25nM for primer set 2.

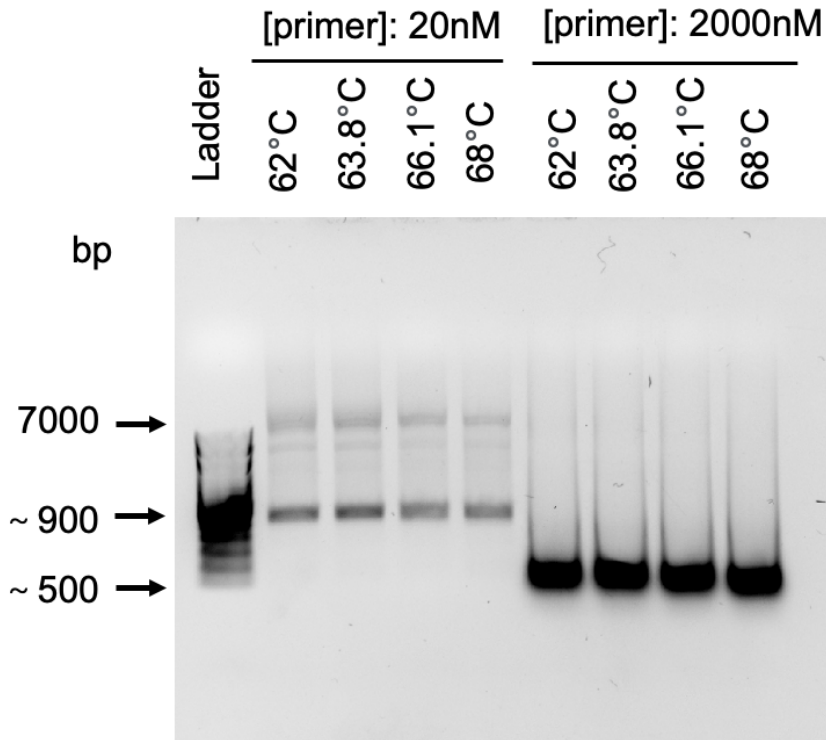


FIG. S2 1% agarose gel electrophoresis image of temperature (60 - 70°C) gradient PCR of *brkA*-containing pDO6935 using 6xHis-tag primer set #1 with concentration of 20nM and 2000nM. Multiple non-specific binding bands were observed for plasmids amplified by 20nM primer across temperatures, while one thick band was observed for plasmids amplified by 2000nM primer across temperatures.

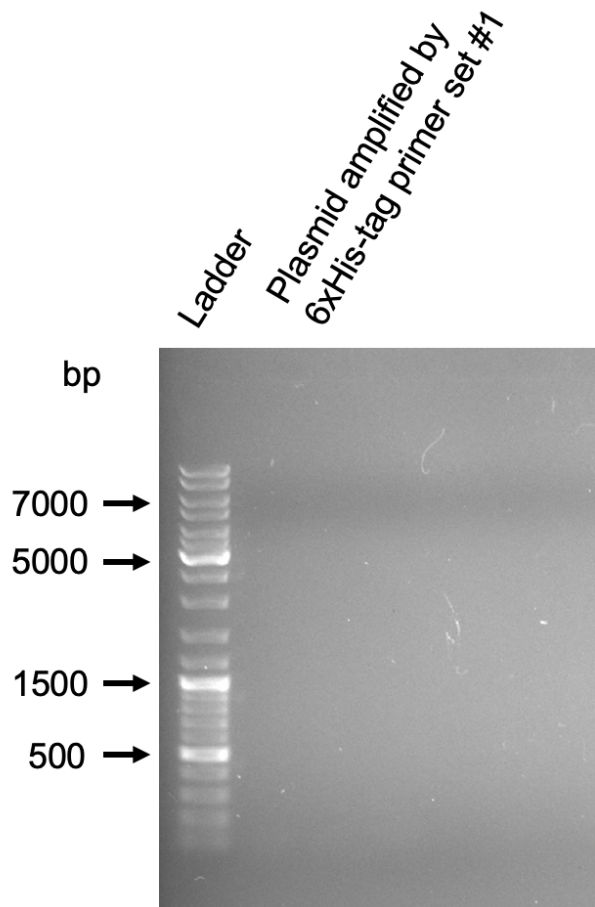


FIG. S3 1% agarose gel electrophoresis image of 6xHis-tag primer set #1 PCR amplified plasmid at 71°C. No bands were observed.