

Table S3. Oligonucleotide primers used for cloning, strain construction and real-time quantitative RT-PCR (qRT-PCR) in this study. Restriction enzyme sites used for cloning are underlined. Start and stop codons in primers used for construction of in-frame deletions are indicated in bold.

Name	Purpose	Sequence (5'-3')
dPY1F1	Upstream $\Delta phoY1$	GATTAATTAACGCACGCCGACATTGAC
dPY1R1	Upstream $\Delta phoY1$	GACGCATGCCGTCCG CAT GGTGTACG
dPY1F2	Downstream $\Delta phoY1$	GACGCATGCTCCACTTACT GAG AGGGTCTCG
dPY1R2	Downstream $\Delta phoY1$	<u>TCGGCGCGCCGTCAGCGGATCGT</u> CGAACTC
dPY2F1	Upstream $\Delta phoY2$	GATTAATTAACGCATCAAACGCCAGCAG
dPY2R1	Upstream $\Delta phoY2$	GACGCATGCCGTCCG CAT GTGCTAAAGCCT
dPY2F2	Downstream $\Delta phoY2$	GACGCATGCT AG GCCGAGCAAACATCCAC
dPY2R2	Downstream $\Delta phoY2$	<u>TCGGCGCGCCGTTGGACCTCAC</u> GGACG
Y1F3	Check $\Delta phoY1$	CATCCTGGGCACTGTCAACG
Y1R3	Check $\Delta phoY1$	GGCTGACCATGTTGGCAACG
Y1seqF	Check $\Delta phoY1$	CCGAGGTGCTCTCCAG
Y1R4	Check $\Delta phoY1$	CGATCCTCTGGCCGCAAC
Y2F3	Check $\Delta phoY2$	GCCAGGTCACCACCGAGAG
dPTF2	Check $\Delta phoY2$	GACGCATGCTTCGGCTAGGCCCGATG
PTF4	Check $\Delta phoY2$	GGTCTCGGCCAGATGTTGAC
Y2R4	Check $\Delta phoY2$	CGCTTACGGCATTTCCTCAAGG
Y1-261F	Complement $\Delta phoY1$	TTTCTAGAGACGACGTTTCGGCGGACAT
Y1-261R	Complement $\Delta phoY1$	TTAAGCTTAACGATCCTCTGGCCGCAAC
Y2-261F	Complement $\Delta phoY2$	TTTCTAGACCACCGTCAGCGTGACAGATAAG
Y2-261R	Complement $\Delta phoY2$	TTAAGCTTCGGGTGGATGTTTGCTCG
QY1F1	Check complement $\Delta phoY1$	GCCGGGATAGCGATGAAAC
QY1R1	Check complement $\Delta phoY1$	CAGCGGCGCCAATGTC
QY2F1	Check complement $\Delta phoY2$	CGAGCCCAAGTCGAAAAGG
QY2R1	Check complement $\Delta phoY2$	CGGCCACCGGATGTTG
Y1PF	<i>phoY1</i> Southern	CGATGCGACTGCGGACCAG
Y1PR	<i>phoY1</i> Southern	GAGGGTCTCGTGTGGCGTTG
TY2PF	<i>phoY2</i> Southern	GGCTACTCGCAGGTGGTGTGTC
TY2PR	<i>phoY2</i> Southern	GACGGACACCTTGTTCAACCTC
sigAF5	qRT-PCR <i>sigA</i> forward	CTCAAACAGATCGGCAAGGT
sigAR5	qRT-PCR <i>sigA</i> reverse	CGCTAAGCTCGGTCATCAG
QY1F1	qRT-PCR <i>phoY1</i> forward	GCCGGGATAGCGATGAAAC
QY1R1	qRT-PCR <i>phoY1</i> reverse	CAGCGGCGCCAATGTC
QY2F1	qRT-PCR <i>phoY2</i> forward	CGAGCCCAAGTCGAAAAGG
QY2R1	qRT-PCR <i>phoY2</i> reverse	CGGCCACCGGATGTTG
QRXF1	qRT-PCR <i>regX3</i> forward	CAGCGTTCGGGTGATCATG
QRXR1	qRT-PCR <i>regX3</i> reverse	CAGGCCGACCACCTTGTC
Q0322F1	qRT-PCR <i>udgA</i> forward	TCAACCCCGACCGTATCGT
Q0322R1	qRT-PCR <i>udgA</i> reverse	CTCGCGGACGGCTACCT
Q0557F1	qRT-PCR <i>mgtA</i> forward	GCGGTCTACCAAACCGATGT
Q0557R1	qRT-PCR <i>mgtA</i> reverse	CGTGCTGTCATCGGAATGC
Q0784F2	qRT-PCR <i>rv0784</i> forward	CGATGTCGACGCGTTCTG
Q0784R2	qRT-PCR <i>rv0784</i> reverse	GAGCCACCAGCAACGATACC
ppk1-2 For	qRT-PCR <i>ppk1</i> forward	ATCGAAAACAGTCCCGTCAC
ppk1-2 Rev	qRT-PCR <i>ppk1</i> reverse	GCCGAGTCGTCTGGATACC

ppk2_For	qRT-PCR <i>ppk2</i> forward	CGTCTGGTGGTCATCTTCG
ppk2_Rev	qRT-PCR <i>ppk2</i> reverse	GGTTGAGGTA CTCCGGTGATCC
ppx1_For	qRT-PCR <i>ppx1</i> forward	ACGGTTGACCCGAGAGTG
ppx1_Rev	qRT-PCR <i>ppx1</i> reverse	TCCAGGACGGTCACACTG
ppx2_For	qRT-PCR <i>ppx2</i> forward	ACGTTGCAGGAGGTGTCC
ppx2_Rev	qRT-PCR <i>ppx2</i> reverse	CGGACAGTGTGGTCATCG