

Table S1 PCR primers used in this study

Name	Sequence (5' to 3')*	Restriction enzyme
Ku80-up-F	<u>GGGGTACCCCGTTTAATCGATTACCCATTGG</u>	<i>KpnI</i>
Ku80-up-R	<u>CGAGCTCGATGATGATGTTAATGTTTGG</u>	<i>SacI</i>
Ku80-down-F	<u>GACTAGTCCAGATCACGCACAGTCTCGG</u>	<i>SpeI</i>
Ku80-down-R	<u>CCCTCGAGGGGTTTCGCAAGCCTAGTGGTCCG</u>	<i>XhoI</i>
Ku80-i-R	ACTCACCATCTGTTCTGAGA	–
Ku80-i2-R	TCTTTTCGATGATACCTTCG	–
Ku80-V-F	AGTCCTCCGTGGTCCTG	
hph-R1	GTCCCTCGTTCCTGTCTGC	
hph-F	CGCGTCTGCTGCTCCATAACAAG	–
hph-R2	TTCGATGTAGGAGGGCGTGGAT	–
Trpc-neo- <i>BamHI</i>	<u>CGGGATCCC</u> GGGAGGTCAACACATCAATGCT	<i>BamHI</i>
Trpc-neo- <i>XbaI</i>	<u>GCTCTAGAG</u> GCTCAGAAGAAGCTCGTCAAGAAG	<i>XbaI</i>
brlA-up-F	<u>GGGGTACCC</u> CCCCTCGGGATTCTATGCT	<i>KpnI</i>
brlA-up-R	<u>CGGGATCCC</u> G GCTCCTGCCGGTCCATGTG	<i>BamHI</i>
brlA-down-F	<u>GCTCTAGAT</u> GAGCTGAGCGTTGATGGC	<i>XbaI</i>
brlA-down-R	<u>CCCAAGCTT</u> GCCCCGATTTGTTCCACATTTGAT	<i>HindIII</i>
mpkA-up-F	<u>GGGGTACCC</u> CAACCGACAAGATAGGGC	<i>KpnI</i>
mpkA-up-R	<u>CGGGATCCT</u> TGGGACTGGTCAGCACAT	<i>BamHI</i>
mpkA-down-F	<u>GCTCTAGAC</u> AACAGGGTCTTGAAGA	<i>XbaI</i>
mpkA-down-R	<u>CCCAAGCTT</u> CTATCTGGTGGCCGTCAGG	<i>HindIII</i>
brlA-i-F	TTGTCTCGTCCGATCTTTAC	–
brlA-i-R	TGCTGTGGGTCTTGGTGT	–
brlA-V-F	ATGAACATGCCCTGCGGT	–
brlA-V-R	GGGTGGGGTTCGTGCGACT	–
mpkA-i-F	GGTAGGTATCCCAGACAGCA	–
mpkA-i-R	AGCCAGGTCACATTCCAT	–
mpkA-V-F	CGAAAGAGGGAGGCAACGA	–
neo-R	ACCGGCTTCCATCCGAGTA	–

* Introduced restriction sites are underlined