

1 **Supplementary materials**

2 Suppl. Fig. 1. A. Colonies of MSR-1_SU4, left panel and, MSR-1_SU12, right panel.

3 Before excision by *Cre* recombinase, colonies are blue, due to β -glucuronidase gene (*gusA*)

4 expression harbored on the inserted pKmob*GII* vector. After excision of the genomic

5 fragment colonies that lost the inserted vector appear whitish.

6 B. Amplification of the PCR product bridging the deletion region with flanking primer pairs

7 mamAB_SUfw and mamAB_SUrw (right lane). M: 1 kb-DNA ladder marker.

8 C. Southern blot analysis of HincII digested genomic DNA from parental strains and deletants

9 hybridized with α -P³²dATP labeled probe SondemamABfw + SondemamABrw is

10 homologous to 981 bp at positions *mgr4088* to *mgr4089* (Fig. 2). Lane 1: Two bands of 4.188

11 kb and 1.543 kb can be detected in the WT (MSR-1), whereas the control MSR-1B (lane 2)

12 lacking a 40 kb regions including the *mamAB* operon yields no signal. Lane 3: Δ *mamAB*#K7

13 yields a single band at 1.543 kb plus homologous region as result of the insertion of pSU12,

14 indicating proper deletion.

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16 Suppl. Table 1. Primers and probes used in this study

Primer ^a	Nucleotide sequence
5'mamABfw_SU	GAATTCATGCCGGACCAGGCTCGTAA
5'mamABrw_SUloxP	ATAACTTCGTATAGCATAATTATACGAAGTTATCCCGTCACAATTCACCT
3'mamABfw_SUloxP	ATAACTTCGTATAGCATAATTATACGAAGTTATTAACGCCGCCATGGCCATG
3'mamABrw_SU	GAATTCATCAGGGCCGATAAATGTT
mamAB_SUfw	GAAAGAGAGCATGGCATCCTG
mamAB_SUrw	TGACCGATCAGGCTGCCTGA
SondemamABfw	GGTGTCTAATTCCTCCAGACA
SondemamABrw	GTCGTCCTGAAATCACCGG
5'MGR4058SUfw	GGATCCAGAAGACCGAGAATAAGCGC
5'MGR4058SUrw	TCTAGACATTTCCGCCGGATCGCAAC

SU127_f	CAGTGCATTATCTGCCGGT
SU132_r	GCGAGCATCCTCAGTGCGTA
3'MGR4146SUfw	GTCGACTGATATCGCCACCTTATGGG
3'MGR4146SUrw	AAGCTTACCAGCGACCCGCGCTTGCAATTGGC

17 ^a Sequence 5' to 3'.