

Table S6. Oligonucleotides used in this study.

Name ^a	Oligonucleotide sequence ^b
Tn-seq primers	
1TN	CTGACCCGGTTCGAC
1GG	CAGACGTGTGCTCTCCGATCggggggggggg
2TNA	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTCCGATCTTCGAGATGTGTATAAGAGACAG
2TNB	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTCCGATCTATCGAGATGTGTATAAGAGACAG
2TNC	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTCCGATCTGATCGAGATGTGTATAAGAGACAG
2BAR1	CAAGCAGAAGACGGCATAACGAGATCGTGATGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC
2BAR2	CAAGCAGAAGACGGCATAACGAGATACATCGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC
2BAR3	CAAGCAGAAGACGGCATAACGAGATGCCTAAGTACTGGAGTTCAGACGTGTGCTCTTCCGATC
2BAR4	CAAGCAGAAGACGGCATAACGAGATATTGGCGTACTGGAGTTCAGACGTGTGCTCTTCCGATC
2BAR5	CAAGCAGAAGACGGCATAACGAGATCACTGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC
2BAR6	CAAGCAGAAGACGGCATAACGAGATGACTCTGGTACTGGAGTTCAGACGTGTGCTCTTCCGATC
2BAR7	CAAGCAGAAGACGGCATAACGAGATTGGTCAAGTACTGGAGTTCAGACGTGTGCTCTTCCGATC
2BAR8	CAAGCAGAAGACGGCATAACGAGATCTGATCGTACTGGAGTTCAGACGTGTGCTCTTCCGATC
smc01335 -amiC Disruption	
01335F	5'- cccgaattcAAGTGAAGCCGGTGGAGG
01335R	5'- gggaaagctAACGTGTGGCGTGAACCG
01335C	5'- ATCGTGTAGACCGTGGCGCC
smc00074 Disruption	
00074F	5'- cccgaattcTCGCAGCCGGTCTCGTGAT
00074R	5'- gggaaagctGGTATCGCCTGATCCCGT
00074C	5'- CGTTCATCGTTCGAGCG
smc02050 -tig Disruption	
02050F	5'- cccgaattcTCGACGGCGAAGCCTTCG
02050R	5'- gggaaagctAGGCGCTCGGGTGTATCG
02050C	5'- CGGTGTTGATCTGGCGCC
smc00129 -feuQ Disruption	
00129F	5'- cccgaattcTATCGACCGCTTCACGCG
00129R	5'- gggaaagctTGGCGCGGCTGAGATAGG
00129C	5'- GAACCGACCCGCGCTGGG
smc00776 -cbrA Disruption	
00776F	5'- cccgaattcGGCAGTGGGAAAGATGCC
00776R	5'- gggaaagctTCCATTGCCGACGACGG
00776C	5'- GCTGCTCATGGCTGCACC
smc03808 -ftsK Disruption:	
03808F	5'- gacgaattcGGCACATTGAACGAGCCGG
03808R	5'- gggaaagctACATGGATGATCTCGCCC
03808C	5'- GCCGGTTCAGCTCATAG
smc01359 -aidB Disruption	
01359F	5'- cccgaattcTACCTCCACGGCCGAACG
01359R	5'- gggaaagctTATCGAAGGCTTCGGCCAGG
01359C	5'- TCGCGACCCGGCTCATGAT
smc00575 Disruption	
00575F	5'- cccgaattcGCCGCTGGAGGCGAACAAGAA
00575R	5'- gggaaagctGCAGCGGTCTATCTGCTT
00575C	5'- CTCCCAGATCTGCTGCAC
smc00618 ppk Disruption	
00618F	5'- cccgaattcAGGAACTCGGCGTTCCTCG
00618R	5'- gggaaagctCGGATATTTGCCCTCCTCG
00618C	5'- CCGAAAACACCTGCACG
smc00775 -fbpB Disruption	
00775F	5'- cccgaattcTCACGCTCGTTGCCATGG
00775R	5'- gggaaagctCAGGAACTGGTTCGAGGCC
00775C	5'- GACACCAGGATGCTGTGC
smc02677 -proC Disruption	
02677F	5'- cccgaattcTCTTCCTCGCGGTCAAGC
02677R	5'- gggaaagctTAGGTCCGCTCGAGTCC
02677C	5'- GGTTCCTCCGAGCAAGACG
smc02495 -tal Disruption	
02495F	5'- cccgaattcCGACATCGTCGAGGTTACCA
02495R	5'- gggaaagctGGCTTCCTTACGTGGTTGA
02495C	5'- CCTTCCACTCCATGCCATT
smc02268 -kpsF3 Disruption	
02268F	5'- cccgaattcATGATCACCGCTCAGGATGC
02268R	5'- gggaaagctGTGATGACGCCGATCAGCTT
02268C	5'- CGGTGAGACTCAGCCAAGA
smc04023 -exoN2	

04023F 5'- cccgaattcGGACAAGCCGGTCATCCAAT
 04023R 5'- ggggaagcttTCGACCATCCTGGTGATCCT
 04023C 5'- GCAGGATGTAGCGGCCATT
smc00712 -hypothetical
 00712F 5'- cccgaattcAGATCCAGAAGCGGCTGACT
 00712R 5'- ggggaagcttATGCTGAGTGCCGCGTCTA
 00712C 5'- ACTCTGCCTTGTCGCGCAA
smc03826 -argG
 03826F 5'- cccgaattcGCTCGGCATCAAGGAGATCT
 03826R 5'- ggggaagcttTGCGCATGTGCACGTATTC
 03826C 5'- CTTGTCTAGGTGCCGCTTC
smc01569 -carA
 01569F 5'- cccgaattcAGGACATCGAGGATCTGACG
 01569R 5'- ggggaagcttTCGAGAGCCACGACGTGATA
 01569C 5'- ATGACCGGCACGGCATATT
smc02567 -coaA
 02567F 5'- cccgaattcAACGATCCGGTTCGATCTCGA
 02567R 5'- ggggaagcttATAGGTCGGAGCCTTGACGT
 02567C 5'- AGACCATCGGCACGATCTT
smc01011 -KO1
 01011KO1F 5'- cccgaattcTCAGCCCGCTCATCACCGAT
 01011KO1R 5'- ggggaagcttCCATCCTCCTCACGTCCGA
smc01011 -KO2
 01011KO2F 5'- cccgaattcAAGATTCGCGTGCCCGAAGA
 01011KO2R 5'- ggggaagcttGAGGATCGACCAGGCGGTAT
smc01011 -ND
 01011NDF 5'- cccgaattcCCGAACAAGGACAAGATCT
 01011NDR 5'- ggggaagcttACGGCAATGTGCTGGACGA
 01011NDC 5'- GAGGAGCGCTCGGTCAACAT
smc03995 -KO1
 03995KO1F 5'- cccgaattcATCACGCCTTCAACGGCGC
 03995KO1R 5'- ggggaagcttTTCATCAGTTCGTCCGGCCCT
smc03995 -KO2
 03995KO2F 5'- cccgaattcATGCGCTGATCCTGATGGAG
 03995KO2R 5'- ggggaagcttGAGATGGGAGAGCCGGTTCT
smc03995 -ND
 03995NDF 5'- cccgaattcAAGTGGTACGTGCTCTCGCG
 03995NDR 5'- ggggaagcttTTGAAGACGGCCTGGACCAT
 03995NDC 5'- GTACTTCGCCGAAATCGCGT
smc00149 -fumC KO1
 00149KO1F 5'- cccgaattcCGGAACCCAGTCCGAACATGA
 00149KO1R 5'- ggggaagcttTTGATCGAGGAGGCGACCTG
smc00149 -fumC KO2
 00149KO2F 5'- cccgaattcACATCATCAAGATCGGCCGC
 00149KO2R 5'- ggggaagcttTTGACCTTGCCCGGCATGAT
smc00149 -fumC ND
 00149NDF 5'- cccgaattcATGCTGGTACTGCGCTTGC
 00149NDR 5'- ggggaagcttTCATCGTGGTCACGATCGGC
 00149NDC 5'- CTGCCTTGACCGGTTCCCTC
smc01407 -pdxJ KO1
 01407KO1F 5'- cccGTCGACTTCCGATCTCCAGCCGATCC
 01407KO1R 5'- gggCTCGAGTAGAGTTCTATGCGGTCCGG
smc01407 -pdxJ KO2
 01407KO2F 5'- cccGTCGACTCGCAAGAGCCATAACCTGC
 01407KO2R 5'- gggCTCGAGGGTCTCGCCATTCCGTATT
smc01407 -pdxJ ND
 01407NDF 5'- cccgaattcGAAGTCTCGATCGGACACGG
 01407NDR 5'- ggggaagcttGCAATTGCGAGATACAGCGC
 01407NDC 5'- TAAAGTTCGATGCCGAGCGCG
smc02138 -argD
 02138F 5'- cccgaattcTCTTACCAATTCGGGTGCG
 02138R 5'- ggggaagcttTTCATGGGCGAAGAGCTTGC
 02138C 5'- TTCGGCGGAGAACGACGTCTGA
smc04042
 04042F 5'- cccgaattcTGCATTCATCTCCGGCCTGC
 04042R 5'- ggggaagcttTGCTCGATCAGCGGAATGAG
 04042C 5'- CCTGCCAGTCCGGTGATGATT
smc01361
 01361F 5'- cccgaattcTGCACGATACGCTCGTGCTT
 01361R 5'- ggggaagcttTCGACGTCTCGGATCATG

01361C 5'- TCAAGGTCGATGACGGCGAT
smc04346 -itvC
 04346F 5'- cccgaattcACGGCCTCAACGTCCACTTC
 04346R 5'- ggggaagcttCGACGATCAGCTTCACTTCG
 04346C 5'- TGTCTTCGGTGATGATGCGC
smc00640 -serC
 00640F 5'- cccgaattcGACGTGGTCTTCACCTGGAA
 00640R 5'- ggggaagcttCCAGAGAAGCGCGTCGATAT
 00640C 5'- AGGTTGGCGATCCAGTCGTT
smb20960 -exoN
 20960F 5'- cgcggatecTTCCGAACTCGAGGCCATGT
 20960R 5'- gcgtctagaGCCATCGGTCAACTGGATCT
 20960C 5'- GAAGGCGACATTGGCTTCGA
 20960C 5'- ACGACGAATGCGGCCACAAG
pJG520 vector check primer
 VCpJG520 5'- CCGCAGTGGCTCTCTATACA
smc03003 -rhaK non-disruption control
 03003F 5'- cccgaattcCTGAACAGCACGGGAACGAG
 03003R 5'- ggggaagcttCATACAGCGCCATGCGTCTC
 03003C 5'- AACGCAGCCACAGGTTTC

^aPrimer names indicate whether the primer was used for insert amplification (F, R) or for confirming plasmid integration in *S. meliloti* (C).

^bNucleotides annealing to the template are in uppercase letters. Five prime extensions to facilitate cloning are in lowercase letters. Underlined nucleotides in the Tn-seq primers indicate locations of sequence variability in each series of primers.