

Table S1 List of oligonucleotides used in this study

Names	Sequences (5'→3') ^a	Use
OCB706	<u>GAATTC</u> CATATGCGTGAAAAGACAGAGGC	pMLBAD-rsiC construction
OCB707	<u>CCCGGG</u> TCGACTCAAAGCGGCAGCCGGATCA	pMLBAD-rsiC construction
OCB984	<u>GAATTC</u> CATATGTATGACGGCATGTTTCGCAT	pMLBAD-rsiB1-strep construction
OCB985	<u>TCTAGAATTTTTCGAACTGCGGGTGGCTCCA</u> <u>CCCGGG</u> AAGCGGCAGCCGGATCAAC	pMLBAD-rsiB1-strep construction
OCB668	<u>GAATTC</u> CATATGACATTGTCCACCCGTATTG	pMLBAD-rsiB1-strep construction
OCB986	TCTAGAA <u>CCCGGG</u> GCGGCTGCCTTTGTCG	pMLBAD-rsiB1-strep construction
OCB1035	<u>GGATCCC</u> GATTGTTCTGGACGGTC	pMLBAD-rsiC-H318K construction
OCB1031	<u>ACGCGT</u> TTGTTGAGCTCCTTCAGCAACAG	pMLBAD-rsiC-H318K construction
OCB1032	<u>ACGCGT</u> CAAGAACACGCTTGCAATG	pMLBAD-rsiC-H318K construction
OCB684	<u>GAATTC</u> CATATGCCACTTTCACAAGG	pMLBAD-rsiB2-D191A construction
OCB938	<u>CAGCTG</u> GATAGCCGCAAG	pMLBAD-rsiB2-D191A construction
OCB680	<u>GGATCCT</u> GATTGATCCTGCAGCGC	<i>rsiC</i> upstream
OCB681	<u>GTCGAC</u> CAGCCTGAAGGACACCGAG	<i>rsiC</i> upstream
OCB716	ACCTATCGATCGTTCGCTGCG	<i>rsiC</i> downstream
OCB717	<u>CGGAGCTC</u> GACCGAGTATGAAGGGGAGC	<i>rsiC</i> downstream
OCB946	<u>GAGCTC</u> GCTCCGCTGCCACGCCAG	SMc00322 upstream
OCB947	<u>GGATCC</u> ATTTTACCGCTCTACCGATC	SMc00322 upstream
OCB958	<u>GTCGAC</u> CAGATAGTCGAGGAGCGAC	SMc00322 downstream
OCB959	<u>GGATCCC</u> AAGGATCATTCTCGCAG	SMc00322 downstream
OCB798	<u>GAGCTC</u> GCGTAGTAGTCTTGATCCACG	SMa1001 upstream
OCB799	<u>GGATCCC</u> TTCTTGCTTCCCTCTCGG	SMa1001 upstream
OCB800	<u>GGATCC</u> GCGCTCTCAAGTCGGTCGG	SMa1001 downstream
OCB801	<u>CTCGAG</u> GTCATCGCTGTAACCAGC	SMa1001 downstream
OCB802	<u>GTCGAC</u> CCAGCAATCGGTGAACAGTG	SMa2063 upstream
OCB803	<u>GGATCC</u> GAGCGATCACACCTCCGGG	SMa2063 upstream
OCB804	<u>GGATCC</u> GAGATTAGGGTATGGCTCC	SMa2063 downstream
OCB805	<u>GAGCTC</u> CTTGCTGGTGGAGCTGGTG	SMa2063 downstream
OCB516	CGGAAACGCTTGACATCAC	screening of Δ <i>rsiC</i> mutants
OCB714	TCATCGCAGCCGCTTTGCTG	screening of Δ <i>rsiC</i> mutants
OCB962	CAACCCGATCATCCTGCG	screening of Δ SMc00322 mutants
OCB963	GCACCGATCAGCTTGGTG	screening of Δ SMc00322 mutants
OCB857	CGCTTTTCAGATCGGCTTG	screening of Δ SMa1001 mutants
OCB858	CCTTCGGCTGCTCCGCTC	screening of Δ SMa1001 mutants
OCB859	GAATGGCTCTGCGTCAGTTC	screening of Δ SMa2063 mutants
OCB860	GTGCAGTGGCTGAAGCAG	screening of Δ SMa2063 mutants

^aRestriction sites are underlined. The strep-tag coding sequence is indicated in bold letters.

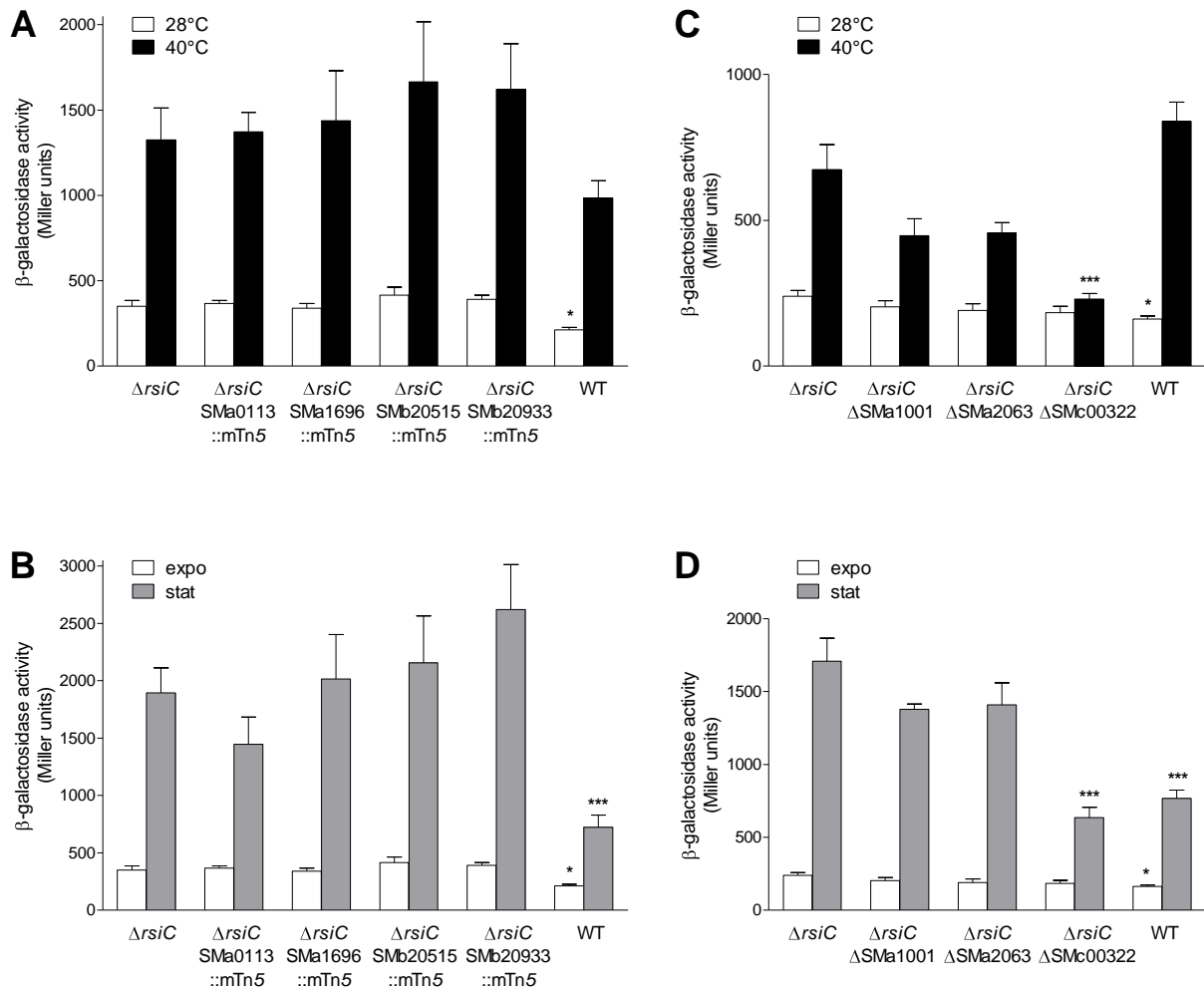


FIG S1 SMc00322 is the main H_W -type kinase contributing to RpoE2 activation in the absence of RsiC. The transcription level of the $P_{SMc00885}$ -*lacZ* fusion carried on plasmid pMP220-885, used as a reporter of RpoE2 activity, was measured in the following *S. meliloti* strains: (A, B) Rm2011 background: CBT1710 ($\Delta rsiC$), CBT1702 ($\Delta rsiC$ SMa0113::mTn5), CBT1706 ($\Delta rsiC$ SMa1696::mTn5), CBT1704 ($\Delta rsiC$ SMb20515::mTn5), CBT1708 ($\Delta rsiC$ SMb20933::mTn5) and GMI11495 (WT); (C, D) Rm1021 background: CBT785 ($\Delta rsiC$), CBT862 ($\Delta rsiC$ Δ SMa1001), CBT866 ($\Delta rsiC$ Δ SMa2063), CBT1169 ($\Delta rsiC$ Δ SMc00322), Rm1021 (WT). β -galactosidase activity was measured on aliquots of cultures grown to exponential phase at 28°C (white bars), after 1h at 40°C (black bars), or grown for 48 h in stationary phase (gray bars). β -galactosidase activities are means and standard errors from at least three independent experiments. Statistical analyses were performed on Log-transformed data using a one way ANOVA ($P < 0.0001$). The Bonferroni post-test was used to compare each strain to its isogenic $\Delta rsiC$ mutant grown under identical culture conditions (*, $P < 0.05$; ***, $P < 0.001$).