

**Supplementary Table 1.** Bacterial strains and plasmids used in this study

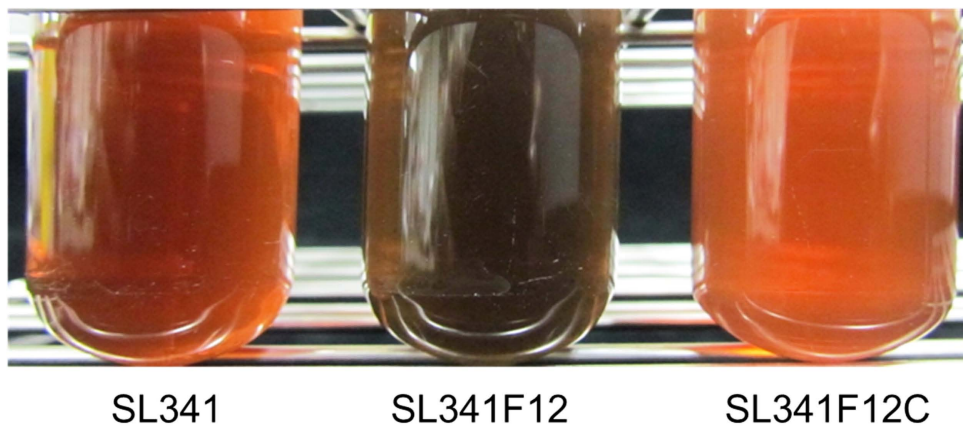
Bacterial strains and plasmids	Characteristics	Reference
<i>Ralstonia solanacearum</i>		
SL341	Wild-type, isolated from tomato plants, Race 1, Biovar 4	Jeong et al. (2007)
SL341F12	<i>mur1</i> (RSc1956):: Tn5; Kan <sup>r</sup>	This study
SL341F12C	Transconjugant of SL341F12 carrying pRKM, complementation of SL341F12; Kan <sup>r</sup> , Tc <sup>r</sup>	This study
<i>Escherichia coli</i>		
DH5α	F <sup>-</sup> φ80 <i>lacZDM15 D(lacZYA-argF)U 169 deoR recA1 endA1 hsdR17 (rk<sup>-</sup>, mk<sup>+</sup>) phoA supE44λ- thi-1 gyrA96 relA1</i>	Bethesda Research Laboratories (1986)
HB101	F- <i>thi-1 hsdS20 (rB<sup>-</sup>, mB<sup>-</sup>) supE44 recA13 ara-14 leuB6 proA2 lacY1 galK2 rpsL20 (str<sup>r</sup>) xyl-5 mtl-1</i>	Boyer and Roulland-Dussoix (1969)
Plasmid		
pUC119	Ap <sup>r</sup> ; cloning vector	Yanisch-Perron et al. (1985)
pGEM-T Easy	Ap <sup>r</sup> ; T/A cloning vector	Promega
pGEMM	Ap <sup>r</sup> ; pGEM-T Easy carrying 956 bp fragment of <i>mur1</i> gene of <i>R. solanacearum</i> SL341	This study
pRK415	Tc <sup>r</sup> ; PK2-derived broad host range cloning vector	Keen et al. (1988)
pRKM	Tc <sup>r</sup> ; pRK415 carrying 907 bp <i>Bam</i> HI fragment of pGEMM containing <i>mur1</i> gene of <i>R. solanacearum</i> SL341	This study
pRK2013	Km <sup>r</sup> ; mobilization helper plasmid for triparental mating	Figurski and Helinski (1979)

## References

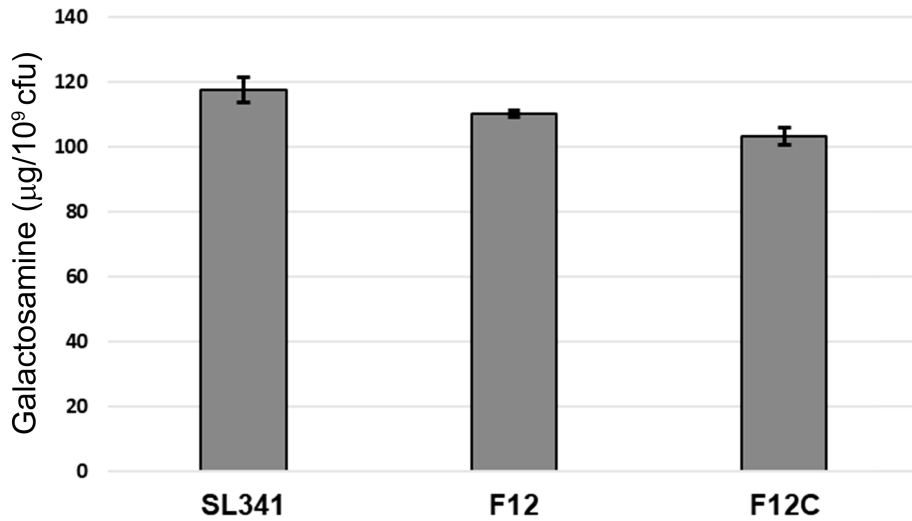
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- Boyer, H. W. and Roulland-Dussoix, D. 1969. A complementation analysis of the restriction and modification of DNA in *Escherichia coli*. *J. Mol. Biol.* 41:459-472.
- Figurski, D. H. and Helinski, D. R. 1979. Replication of an origin-containing derivative of plasmid RK2 dependent on a plasmid function provided in trans. *Proc. Natl. Acad. Sci. U. S. A.* 76:1648-1652.
- Jeong, Y., Kim, J., Kang, Y., Lee, S. and Hwang, I. 2007. Genetic diversity and distribution of Korean isolates of *Ralstonia solanacearum*. *Plant Dis.* 91:1277-1287.
- Keen, N. T., Tamaki, S., Kobayashi, D. and Trollinger, D. 1988. Improved broad-host-range plasmids for DNA cloning in gram-negative bacteria. *Gene* 70:191-197.
- Yanisch-Perron, C., Vieira, J. and Messing, J. 1985. Improved M13 phage cloning vectors and host strains: nucleotide sequences of the M13mp18 and pUC19 vectors. *Gene* 33:103-119.

**Supplementary Table 2.** List of primers used in PCR reaction

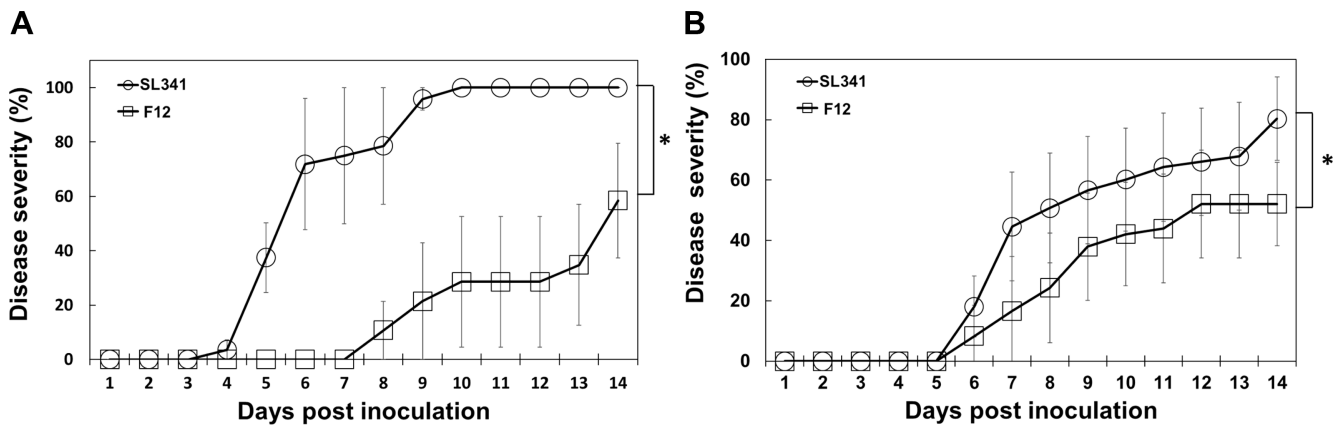
Gene	Primer (5'-3')	Annealing Temperature (°C)	Product size (bp)
PCR primer for complementation			
murI	<b>F: ATTATAGGATCCATCGGCAAGATCCCGGTCG</b> <b>F: ATTATAGGATCCATCGGCAAGATCCCGGTCG</b> <b>R: ATAACGGGATCCGGCCCCGTTTTATTGCGGAT</b>	60	907
Primer for RT-qPCR			
murI	<b>F: CGTGCTGGCGACGGAAA</b> <b>R: TGTCGATCAGCGTGAGGC</b>	60	281
flgC	<b>F: ATGAAGCGCATGCACCA</b> <b>R: GCGGAAATCATGTTGACCATC</b>	6	104
flgE	<b>F: ACAAGAACGGCTACATCATCTC</b> <b>R: GGATCTGCAGGTTGGTCAG</b>	6	96
fliM	<b>F: CCCACGCTGGAAATCATCA</b> <b>R: GCTGTACTTCTGGACCTCAC</b>	6	117
V3 region of 16S rRNA	<b>F: ACTCCTACGGRAGGCAGCAG</b> <b>R: ATTACCGCGGCTGCTGG</b>	60	190



**Supplementary Fig. 1.** Cultural phenotype of SL341, SL341F12, and SL341F12C incubated for 48 h at 30°C in MG broth supplemented with tyrosine (50 µg/ml).



**Supplementary Fig. 2.** Quantification of EPS in SL341, SL341F12 and SL341F12C incubated for 48 h at 30°C in casamino acid-peptone-glucose broth containing appropriate antibiotics.



**Supplementary Fig. 3.** Evaluation of bacterial wilt occurrence on a susceptible (A) and a resistant (B) tomato cultivars inoculated by *Ralstonia solanacearum* strain SL341 and SL341F12 using petiole injection. Disease severity was scored through 2 weeks after inoculation of 3-week-old tomato cultivars grown at 28°C, in a day/night regime (14 h light/10 h dark). Control was treated with distilled water. All experiments were performed in triplicate (each replicate include 10 plants). Vertical bars represent standard deviations ( $n = 30$ ). Significant difference was noticed by repeated measures ANOVA ( $*P < 0.05$ ).