

**Supplementary Table 1.** List of primers used in this study for the phylogenetic analysis of *Xanthomonas citri* pv. *glycines* type strains

Gene	Forward primer (5'-3')	Reverse primer (5'-3')	References
16S ribosomal ribonucleic acid (16S rRNA)	AGAGTTTGATCCTGGCTCAG	TACCTTGTTACGACTT	Frank et al. (2008)
Gyrase subunit B gene ( <i>gyrB</i> )	AAGCAGGGCAAGAGCGAGCTGTA	CAAGGTGCTGAAGATCTGGTC	Parkinson et al. (2007)
RNA polymerase beta subunit gene ( <i>rpoB</i> )	TCAAGGAGCGTCTGTGCAT	TCTGCCTCGTTGACCTTGA	Ferreira-Tonin et al. (2012)

## References

- Ferreira-Tonin, M., Rodrigues-Neto, J., Harakava, R. and Destéfano, S. A. L. 2012. Phylogenetic analysis of *Xanthomonas* based on partial *rpoB* gene sequences and species differentiation by PCR-RFLP. *Int. J. Syst. Evol.* 62:1419-1424.
- Frank, J. A., Reich, C. I., Sharma, S., Weisbaum, J. S., Wilson, B. A. and Olsen, G. J. 2008. Critical evaluation of two primers commonly used for amplification of bacterial 16S rRNA genes. *Appl. Environ. Microbiol.* 74:2461-2470.
- Parkinson, N., Aritua, V., Heeney, J., Cowie, C., Bew, J. and Stead, D. 2007. Phylogenetic analysis of *Xanthomonas* species by comparison of partial *gyrB* gene sequences. *Int. J. Syst. Evol. Microbiol.* 57:2881-2887.

**Supplementary Table 2.** List of *Xanthomonas citri* pv. *glycines* strains used in Southern blot analyses in this study

Strain name	No. of avrBs3 repeats	Banding pattern <sup>a</sup>	Origin
K1	7	7	Geosan-gun, Chungcheongbuk-do, isolated in 2017
K2	5	1	Danyang-gun, Chungcheongbuk-do, isolated in 2017
K3	6	2	Yeoncheon-gun, Gyeonggi-do, isolated in 2017
K4	6	2	Chungju-si, Chungcheongbuk-do, isolated in 2017
K5	5	1	Jecheon-si, Chungcheongbuk-do, isolated in 2017
K6	6	6	Muan-gun, Jeollanam-do, isolated in 2017
K7	5	1	Gochang-gun, Jeollabuk-do, isolated in 2017
K8	5	1	Gochang-gun, Jeollabuk-do, isolated in 2017
K9	6	2	Gochang-gun, Jeollabuk-do, isolated in 2017
K10	6	2	Taeon-gun, Chungcheongnam-do, isolated in 2017
K11	6	2	Taeon-gun, Chungcheongnam-do, isolated in 2017
K12	6	2	Sunchang-gun, Jeollabuk-do, isolated in 2017
K13	4	11	Jangheung-gun, Jeollanam-do, isolated in 2017
K14	6	2	Gongju-si, Chungcheongnam-do, isolated in 2016
K15	6	2	Gongju-si, Chungcheongnam-do, isolated in 2016
K16	4	3	Seosan-si, Chungcheongnam-do, isolated in 2016
K17	5	1	Yeoncheon-gun, Gyeonggi-do, isolated in 2016
K18	5	1	Chungju-si, Chungcheongbuk-do, isolated in 2016
K19	5	4	Cheongyang-gun, Chungcheongnam-do, isolated in 2016
K20	5	9	Cheongyang-gun, Chungcheongnam-do, isolated in 2016
K21	5	4	Cheongyang-gun, Chungcheongnam-do, isolated in 2016
K22	6	2	Youngwol-gun, Gangwon-do, isolated in 2015
K23	5	1	Youngwol-gun, Gangwon-do, isolated in 2015
K24	6	2	Youngwol-gun, Gangwon-do, isolated in 2015

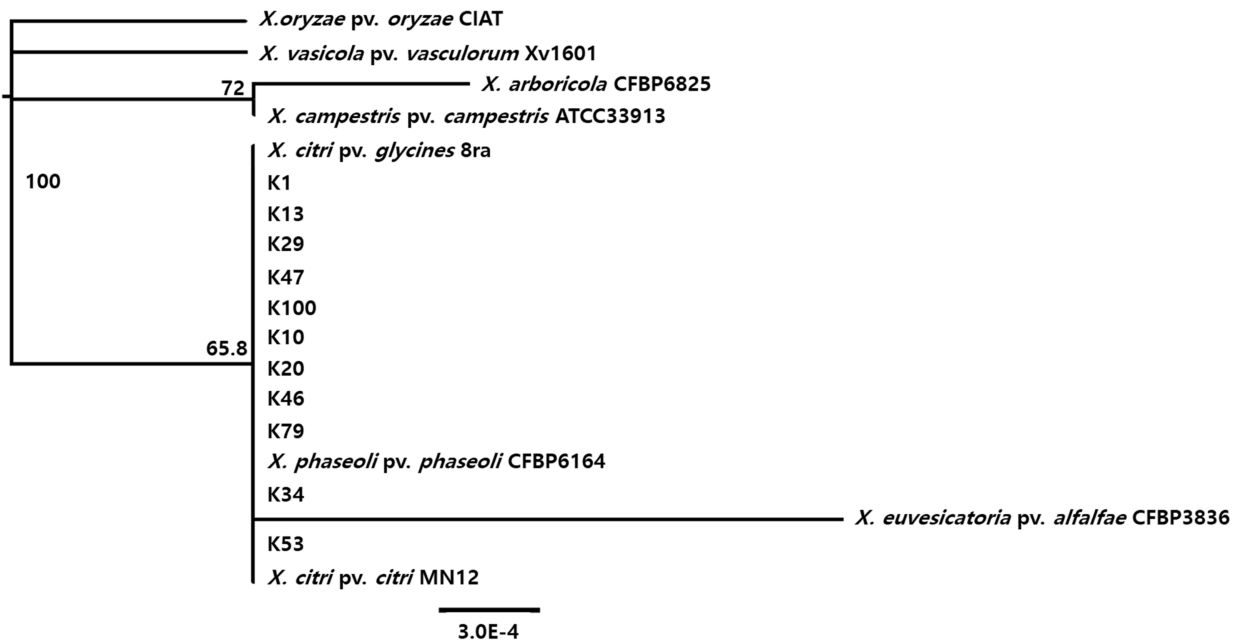
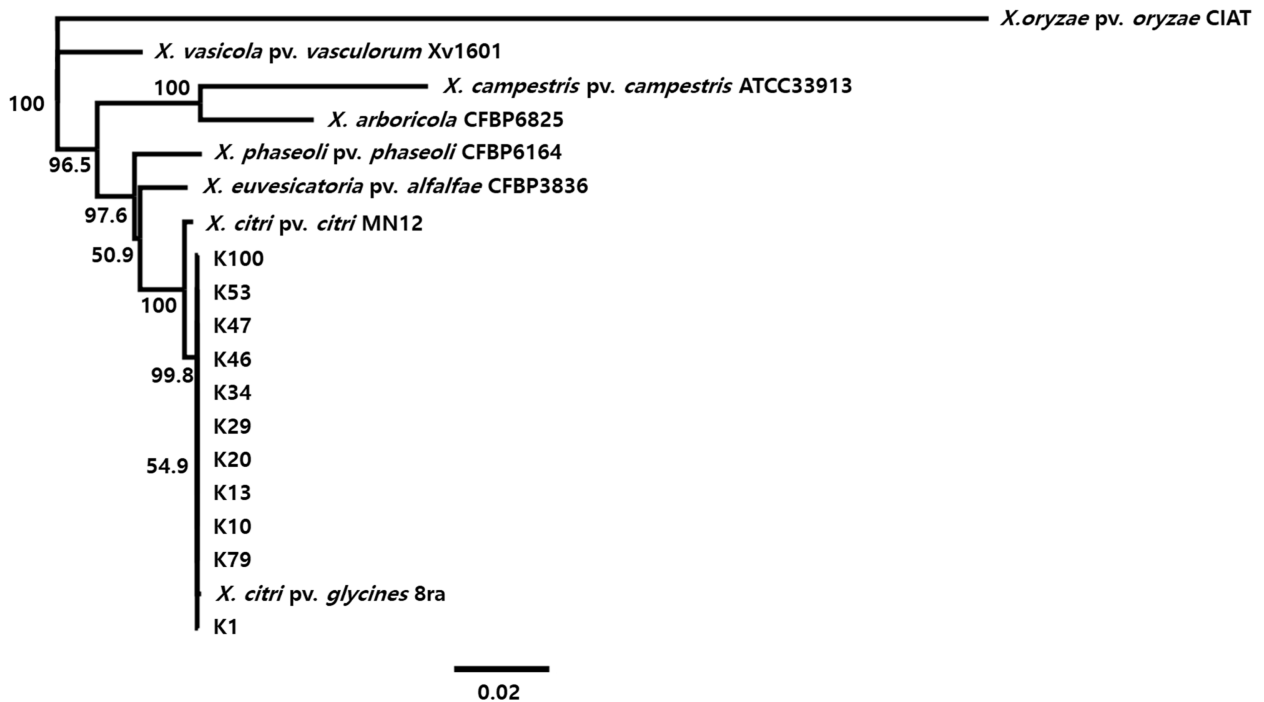
K25	5	1	Jecheon-si, Chungcheongbuk-do, isolated in 2015
K26	6	2	Jecheon-si, Chungcheongbuk-do, isolated in 2015
K27	5	1	Jecheon-si, Chungcheongbuk-do, isolated in 2015
K28	5	1	Jecheon-si, Chungcheongbuk-do, isolated in 2015
K29	5	1	Jecheon-si, Chungcheongbuk-do, isolated in 2015
K30	6	2	Pyeongchang-gun, Gangwon-do, isolated in 2015
K31	6	2	Pyeongchang-gun, Gangwon-do, isolated in 2015
K32	5	1	Muan-gun, Jeollanam-do, isolated in 2015
K33	5	1	Muan-gun, Jeollanam-do, isolated in 2015
K34	5	4	Goesan-gun, Chungcheongbuk-do, isolated in 2015
K35	5	1	Goesan-gun, Chungcheongbuk-do, isolated in 2015
K36	6	2	Goesan-gun, Chungcheongbuk-do, isolated in 2015
K37	6	2	Danyang-gun, Chungcheongbuk-do, isolated in 2015
K38	5	1	Danyang-gun, Chungcheongbuk-do, isolated in 2015
K39	5	1	Inje-gun, Gangwon-do, isolated in 2015
K40	6	2	Chungju-si, Chungcheongbuk-do, isolated in 2015
K41	6	2	Chungju-si, Chungcheongbuk-do, isolated in 2015
K42	5	1	Chungju-si, Chungcheongbuk-do, isolated in 2015
K43	5	1	Muan-gun, Jeollanam-do, isolated in 2015
K44	5	1	Muan-gun, Jeollanam-do, isolated in 2015
K45	5	1	Pyeongchang-gun, Gangwon-do, isolated in 2015
K46	4	10	Pyeongchang-gun, Gangwon-do, isolated in 2015
K47	4	3	Seosan-si, Chungcheongnam-do, isolated in 2015
K48	5	1	Seosan-si, Chungcheongnam-do, isolated in 2015
K49	5	1	Muan-gun, Jeollanam-do, isolated in 2015
K50	5	4	Muan-gun, Jeollanam-do, isolated in 2015
K51	6	2	Chungju-si, Chungcheongbuk-do, isolated in 2015
K52	5	1	Danyang-gun, Chungcheongbuk-do, isolated in 2015
K53	5	5	Inje-gun, Gangwon-do, isolated in 2015
K54	6	2	Sunchang-gun, Jeollabuk-do, isolated in 2015
K55	5	1	Muan-gun, Jeollanam-do, isolated in 2015
K56	5	1	Suwon-si, Gyeonggi-do, isolated in 2013
K57	6	2	Suwon-si, Gyeonggi-do, isolated in 2013
K58	5	1	Suwon-si, Gyeonggi-do, isolated in 2013
K59	5	1	Suwon-si, Gyeonggi-do, isolated in 2013
K60	5	1	Suwon-si, Gyeonggi-do, isolated in 2013
K61	6	2	Gyeongsangbuk-do, isolated 2013
K62	5	1	Gyeongsangbuk-do, isolated 2013
K63	5	1	Gyeongsangbuk-do, isolated 2013
K64	5	1	Pyeongtaek-si, Gyeonggi-do, isolated in 2013
K65	5	1	Yeoncheon-gun, Gyeonggi-do, isolated in 2013
K66	5	1	Chuncheon-si, Gangwon-do, isolated in 2013
K67	6	2	Chuncheon-si, Gangwon-do, isolated in 2013
K68	5	1	Chuncheon-si, Gangwon-do, isolated in 2013
K69	5	1	Chuncheon-si, Gangwon-do, isolated in 2013

K70	5	1	Chuncheon-si, Gangwon-do, isolated in 2013
K71	5	1	Chuncheon-si, Gangwon-do, isolated in 2013
K72	5	1	Chuncheon-si, Gangwon-do, isolated in 2013
K73	5	1	Miryang-si, Gyeongsangnam-do, isolated in 2013
K74	5	1	Miryang-si, Gyeongsangnam-do, isolated in 2013
K75	5	1	Miryang-si, Gyeongsangnam-do, isolated in 2013
K76	6	2	Yesan-gun, Chungcheongnam-do, isolated in 2013
K77	5	1	Chuncheon-si, Gangwon-do, isolated in 2013
K78	5	1	Chuncheon-si, Gangwon-do, isolated in 2013
K79	6	8	Sacheon-si, Gyeongsangnam-do, isolated in 2013
K80	4	1	Yeoncheon-gun, Gyeonggi-do, isolated in 2013
K81	4	1	Changwon-si, Gyeongsangnam-do, isolated in 2013
K82	6	2	Pyeongchang-gun, Gangwon-do, isolated in 2013
K83	6	2	Pyeongchang-gun, Gangwon-do, isolated in 2013
K84	5	1	Youngwol-gun, Gangwon-do, isolated in 2013
K85	6	2	Pyeongchang-gun, Gangwon-do, isolated in 2013
K86	4	3	Jinju-si, Gyeongsangnam-do, isolated in 2013
K87	4	3	Jinju-si, Gyeongsangnam-do, isolated in 2012
K88	5	1	Hongcheon-gun, Gangwon-do, isolated in 2012
K89	6	2	Hongcheon-gun, Gangwon-do, isolated in 2012
K90	6	2	Naju-si, Jeollanam-do, isolated in 2012
K91	6	2	Tae'an-gun, Chungcheongnam-do, isolated in 2017
K92	6	2	Goesan-gun, Chungcheongbuk-do, isolated in 2017
K93	6	2	Goesan-gun, Chungcheongbuk-do, isolated in 2017
K94	6	2	Goesan-gun, Chungcheongbuk-do, isolated in 2017
K95	6	2	Danyang-gun, Chungcheongbuk-do, isolated in 2015
K96	5	1	Yeoncheon-gun, Gyeonggi-do, isolated in 2017
K97	6	2	Gochang-gun, Jeollabuk-do, isolated in 2017
K98	6	2	Jangheung-gun, Jeollanam-do, isolated in 2017
K99	6	2	Gongju-si, Chungcheongnam-do, isolated in 2016
K100	6	6	Cheongyang-gun, Chungcheongnam-do, isolated in 2016
K101	5	5	Tae'an-gun, Chungcheongnam-do, isolated in 2016
K102	5	1	Chuncheon-si, Gangwon-do, isolated in 2013
K103	6	2	Pyeongchang-gun, Gangwon-do, isolated in 2013
K104	5	1	Pyeongchang-gun, Gangwon-do, isolated in 2013
K105	4	3	Iksan-si, Jeollabuk-do, isolated in 2013
K106	5	1	Iksan-si, Jeollabuk-do, isolated in 2013

<sup>a</sup>Banding pattern (type strain): 1 (K29), 2 (K10), 3 (K47), 4 (K34), 5 (K53), 6 (K100), 7 (K1), 8 (K79), 9 (K20), 10 (K46), 11 (K13).

	K29	K34	K46	K53	K47	K100	K1	K10	K13	K20	K79	8ra
D-melibiose	26(-)	29(-)	21(-)	34(-)	23(-)	34(-)	30(-)	31(-)	26(-)	29(-)	31(-)	43(-)
<i>N</i> -Acetyl-D-glucosamine	80(+)	93(+)	75(+)	86(+)	69(+)	71(+)	68(+)	62(+)	49(+)	73(+)	84(+)	85(+)
$\alpha$ -D-glucose	59(+)	90(+)	75(+)	83(+)	55(+)	68(+)	69(+)	67(+)	49(+)	70(+)	85(+)	83(+)
Glycerol	21(-)	31(-)	33(-)	33(-)	19(-)	20(-)	21(-)	23(-)	16(-)	19(-)	27(-)	33(-)
D-glucose-6-PO <sub>4</sub>	14(-)	17(-)	16(-)	20(-)	19(-)	19(-)	23(-)	25(-)	18(-)	20(-)	18(-)	21(-)
D-fructose-6-PO <sub>4</sub>	22(-)	22(-)	25(-)	23(-)	24(-)	26(-)	27(-)	38(-)	22(-)	23(-)	25(-)	29(-)
Rifamycin.SV	100	100	100	100	100	100	92(+)	71(+)	74(+)	100	100	100
Gelatin	78(+)	98(+)	65(+)	93(+)	69(+)	64(+)	76(+)	56(+)	44(+)	76(+)	88(+)	86(+)
D-saccharic acid	16(-)	16(-)	16(-)	18(-)	15(-)	17(-)	17(-)	16(-)	17(-)	15(-)	16(-)	18(-)
L-lactic acid	23(-)	24(-)	22(-)	29(-)	19(-)	25(-)	28(-)	18(-)	22(-)	22(-)	28(-)	28(-)
Nalidixic acid	12(-)	15(-)	11(-)	12(-)	11(-)	11(-)	12(-)	20(-)	11(-)	12(-)	19(-)	14(-)
Aztreonam	90(+)	78(+)	50(+)	96(+)	46(/)	53(+)	51(+)	75(+)	31(/)	53(+)	84(+)	76(+)

**Supplementary Fig. 1.** Distinguishing features for *Xanthomonas citri* (PG I), based on Biolog GEN III data. Values are the percentage of intermediate and positive (i.e., / or +) strains.

**A****B**

**Supplementary Fig. 2.** A phylogenetic analysis of *Xanthomonas citri* pv. *glycines* type strains based on 16S rRNA gene, DNA gyrase subunit B gene (*gyrB*) and RNA polymerase beta subunit gene (*rpoB*) sequences. The tree in (A) is based on the 16S rRNA gene, and the tree in (B) is based on a concatenation of *gyrB* and *rpoB*, with *X. oryzae* pv. *oryzae* used as an outgroup. The phylogenetic trees were generated by the Neighbor-Joining method with 1,000 bootstrap replicates and the bootstrap values are displayed on the trees. Bars (0.01) indicate the substitution rate per nucleotide position.