

Supplementary Materials

16SrIII-A	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-B	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-C	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-D	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-E	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-F	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-G	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-H	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-J	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-L	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-M	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-N	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-O	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-P	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-Q	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-S	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-V	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-W	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-X	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIII-Y	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrXXI	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrIX	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA
16SrXI	GGCGAACGGGTGAGTAACACGTAAGCAACCTGCCCTTAAGACGAGGATAACAATTGGAAA

gXd	GGCGAACGGGTGAGTAACAC forward primer	AAGCAACCTGCCCTTAAGACGAGGATAACA probe	GGAAA
-----	---	--	------------------

16SrIII-A	CAGTTGCTAAGACTGGATAGG	121
16SrIII-B	CAGTTGCTAAGACTGGATAGG	162
16SrIII-C	CAGTTGCTAAGACTGGATAGG	103
16SrIII-D	CAGTTGCTAAGACTGGATAGG	102
16SrIII-E	CAGTTGCTAAGACTGGATAGG	162
16SrIII-F	CAGTTGCTAAGACTGGATAGG	162
16SrIII-G	CAGTTGCTAAGACTGGATAGG	162
16SrIII-H	CAATCGCTAAGACTGGATAGG	162
16SrIII-J	CAGTTGCTAAGACTGGATAGG	162
16SrIII-L	CAGTTGCTAAGACTGGATAGG	115
16SrIII-M	CAGTTGCTAAGACTGGATAGG	137
16SrIII-N	CAGTTGCTAAGACTGGATAGG	137
16SrIII-O	CAGTTGCTAAGACTGGATAGG	137
16SrIII-P	CAGTTGCTAAGACTGGATAGG	137
16SrIII-Q	CAGTTGCTAAGACTGGATAGG	162
16SrIII-S	CAGTTGCTAAGACTGGATAGG	167
16SrIII-V	CAGTTGCTAAGACTGGATAGG	162
16SrIII-W	CAGTTGCTAAGACTGGATAGG	162
16SrIII-X	CAGTTGCTAAGACTGGATAGG	162
16SrIII-Y	CAGTTGCTAAGACTGGATAGG	137
16SrXXI	CAGTTGCTAAGACTGGATAGG	164
16SrIX	CAGTTGCTAAGACTGGATAGG	137
16SrXI	CAGTTGCTAAGACTGGATAGG	130

gXd	CAGTTGCTAAGACTGGATAGG reverse primer
-----	--

Figure S1. Alignment of sequences of phytoplasmas belonging to the 16SrIII subgroups and different other groups for the gXd test design. The sequences of the primers and probes are shown in the boxes below the alignment. Grey shading indicates differences between the nucleotide sequences the primer and probe regions. The GenBank numbers of the aligned sequences are shown in the Supplementary Materials Table S1. Where there is more than one strain per subgroup in the Table S1, the sequence of the studied part of the 16S rRNA gene was the same for all strains of that subgroup.

Table S1. GenBank numbers of the aligned sequences indicated in Supplementary Figure S1.

16Sr group	Phytoplasma	Strain	GenBank N°
16SrIII-A	'Ca. P. pruni'	PX11CT1	JQ044393, JQ044392
		PX11CT2	JQ044391, JQ044390
		PX92CT1	JQ044389, JQ044388
		PX92CT2	JQ044387, JQ044386
		PX92CT3	JQ044385, JQ044384
		PX92CT4	JQ044383, JQ044382
		CX-95	JQ044397
		WX-95	JQ044396
		WX1	FJ376628
	Canadian peach X mycoplasma-like organism	CX	L33733
16SrIII-B	Clover yellow edge phytoplasma	CYE	AF175304
16SrIII-C	Pecan bunch phytoplasma strain	PB1	FJ376626
16SrIII-D	Goldenrod yellows phytoplasma	GRY-GR1	FJ376627
16SrIII-E	Spiraea stunt phytoplasma	SP1	AF190228
16SrIII-F	Milkweed yellows phytoplasma	MW1	AF510724
	Vaccinium witches' broom	VAC	X76430
	Potato purple top phytoplasma	AKpot7	GU004370
	Walnut witches' broom phytoplasma	WWB	JQ044395, JQ044394
16SrIII-H	Poinsettia branch-inducing phytoplasma	PoiBI	AF190223
16SrIII-J	Chayote witches' broom phytoplasma	ChWBIII(Ch10)	AF147706
16SrIII-L	Cassava frogskin disease phytoplasma	FSDY15	EU346761
16SrIII-M	Montana potato purple top phytoplasma	PPT-MT117-1	FJ226074
16SrIII-N	Alaska potato purple top phytoplasma	PPT-AK6	GU004365
16SrIII-P	Dandelion virescence phytoplasma	DanVir	AF370119
16SrIII-Q	Black raspberry witches'-broom phytoplasma	BRWB7	AF302841
16SrIII-S	Western peach X-disease	WX	L04682
16SrIII-V	Passion fruit witches'-broom phytoplasma	PassWB-Br4	GU292082
16SrIII-W	Heterothalamus little leaf	HetLL	KC412029
16SrIII-X	'Conyza bonariensis' phytoplasma	ConWBA	KC412026
16SrIII-Y	Cranberry false blossom	CB1A	KF626525
16SrXXI	'Ca. P. pini'	P127	AJ632155
16SrIX	'Ca. P. phoenicium'	A4	AF515636
16SrXI	Sugarcane grassy shoot phytoplasma	MZN5	KP746933