Table S4. The list of designed LAMP assays selected for experimental evaluation. All the assays were designed on three different genomic sequences, named Seq1, Seq3 and Seq11, specific to AY-SA phytoplasma. Best performing assay, LAMP AY-SA_ftsH, was selected for validation.

Sequence	Assay	Primer name	Primer sequence
Seq1	ID34	TrSafe_AY_SA_Seq1_ID34_F3	CCGAAAACCATCAAGACCATA
		TrSafe_AY_SA_Seq1_ID34_B3	TTTTGGTTTTGACGAACGT
		TrSafe_AY_SA_Seq1_ID34_FIP*	GGATGAAAACCTTCGATGTCAAAGAAATCCATACTCATGTTTTGTTTC
		TrSafe_AY_SA_Seq1_ID34_BIP*	ATCTGCCCGTGATATCGAAAAATCATTTTTTATGTCTTGGAGTACCTT
	ID77	TrSafe_AY_SA_Seq1_ID77_F3	CCGAAAACCATCAAGACCATA
		TrSafe_AY_SA_Seq1_ID77_B3	TTTTGGTTTTGACGAACGT
		TrSafe_AY_SA_Seq1_ID77_FIP*	GGATGAAAACCTTCGATGTCAAAGAATCCATACTCATGTTTTGTTTC
		TrSafe_AY_SA_Seq1_ID77_BIP*	ATCTGCCCGTGATATCGAAAAATCATTTTTTATGTCTTGGAGTACCTT
	ID120	TrSafe_AY_SA_Seq1_ID120_F3	CCGAAAACCATCAAGACCATA
		TrSafe_AY_SA_Seq1_ID120_B3	TTTTTGGTTTTGACGAACGT
		TrSafe_AY_SA_Seq1_ID120_FIP*	GGATGAAAACCTTCGATGTCAAAGAAATCCATACTCATGTTTTGTTTC
		TrSafe_AY_SA_Seq1_ID120_BIP*	ATCTGCCCGTGATATCGAAAAATCATTTTTTATGTCTTGGAGTACCTT
	ID163	TrSafe_AY_SA_Seq1_ID163_F3	CCGAAAACCATCAAGACCATA
		TrSafe_AY_SA_Seq1_ID163_B3	TTTTTGGTTTTGACGAACGT
		TrSafe_AY_SA_Seq1_ID163_FIP*	GGATGAAAACCTTCGATGTCAAAGAATCCATACTCATGTTTTGTTTC
		TrSafe_AY_SA_Seq1_ID163_BIP*	ATCTGCCCGTGATATCGAAAAATCATTTTTTATGTCTTGGAGTACCTT
	ID206	TrSafe_AY_SA_Seq1_ID206_F3	CCGAAAACCATCAAGACCATA
		TrSafe_AY_SA_Seq1_ID206_B3	CTTTTTGGTTTTGACGAACGT
		TrSafe_AY_SA_Seq1_ID206_FIP*	GGATGAAAACCTTCGATGTCAAAGAAATCCATACTCATGTTTTGTTTC
		TrSafe_AY_SA_Seq1_ID206_BIP*	ATCTGCCCGTGATATCGAAAAATCATTTTTTATGTCTTGGAGTACCTT
	ID209	TrSafe_AY_SA_Seq1_ID209_F3	CCGAAAACCATCAAGACCATA
		TrSafe_AY_SA_Seq1_ID209_B3	CTTTTTGGTTTTGACGAACGT
		TrSafe_AY_SA_Seq1_ID209_FIP*	GGATGAAAACCTTCGATGTCAAAGAAATCCATACTCATGTTTTGTTTC
		TrSafe_AY_SA_Seq1_ID209_BIP*	TCTGCCCGTGATATCGAAAAATCAAATTTTTTATGTCTTGGAGTACCT
	ID254	TrSafe_AY_SA_Seq1_ID254_F3	CCGAAAACCATCAAGACCATA

Sequence	Assay	Primer name	Primer sequence
		TrSafe_AY_SA_Seq1_ID254_B3	CTTTTTGGTTTTGACGAACGT
		TrSafe_AY_SA_Seq1_ID254_FIP*	GGATGAAAACCTTCGATGTCAAAGAATCCATACTCATGTTTTGTTTC
		TrSafe_AY_SA_Seq1_ID254_BIP*	CTGCCCGTGATATCGAAAAATCAATATTTTTTATGTCTTGGAGTACCT
	ID30	TrSafe_AY_SA_Seq1_ID30_F3	CCGAAAACCATCAAGACCATA
		TrSafe_AY_SA_Seq1_ID30_B3	TTGGTTTTGACGAACGTATT
		TrSafe_AY_SA_Seq1_ID30_FIP*	GGATGAAAACCTTCGATGTCAAAGAAATCCATACTCATGTTTTGTTTC
		TrSafe_AY_SA_Seq1_ID30_BIP*	ATCTGCCCGTGATATCGAAAAATTTTTATGTCTTGGAGTACCTTCT
Seq3	ID4	TrSafe_AY_SA_Seq3_ID4_F3	ACCCAAGAAATTAAAATGGCTAT
		TrSafe_AY_SA_Seq3_ID4_B3	CCAGCACGTCTAATATCAGTT
		TrSafe_AY_SA_Seq3_ID4_FIP*	GGTTTTACCAAGTTTACTAGCACCCAGATGATTTCTGAGCATCGTC
		TrSafe_AY_SA_Seq3_ID4_BIP*	ATCAGGGGCTCGTTAGATTTTAACCATCATAAACATCGATTTTAAACCT
	ID15	TrSafe_AY_SA_Seq3_ID15_F3	ACCCAAGAAATTAAAATGGCTAT
		TrSafe_AY_SA_Seq3_ID15_B3	CCAGCACGTCTAATATCAGT
		TrSafe_AY_SA_Seq3_ID15_FIP*	GGTTTTACCAAGTTTACTAGCACCCAGATGATTTCTGAGCATCGT
		TrSafe_AY_SA_Seq3_ID15_BIP*	ATCAGGGGCTCGTTAGATTTTAACCATCATAAACATCGATTTTAAACCT
	ID17	TrSafe_AY_SA_Seq3_ID17_F3	ACCCAAGAAATTAAAATGGCTAT
		TrSafe_AY_SA_Seq3_ID17_B3	CCAGCACGTCTAATATCAGTT
		TrSafe_AY_SA_Seq3_ID17_FIP*	GGTTTTACCAAGTTTACTAGCACCCGAGATGATTTCTGAGCATCG
		TrSafe_AY_SA_Seq3_ID17_BIP*	ATCAGGGGCTCGTTAGATTTTAACACATCATAAACATCGATTTTAAACCT
	ID27	TrSafe_AY_SA_Seq3_ID27_F3	ACCCAAGAAATTAAAATGGCTAT
		TrSafe_AY_SA_Seq3_ID27_B3	TTTTAATAAACCAGCACGTCTA
		TrSafe_AY_SA_Seq3_ID27_FIP*	GGTTTTACCAAGTTTACTAGCACCCAGATGATTTCTGAGCATCGT
		TrSafe_AY_SA_Seq3_ID27_BIP*	ATCAGGGGCTCGTTAGATTTTAACCATCATAAACATCGATTTTAAACCT
	ID31	TrSafe_AY_SA_Seq3_ID31_F3	ACCCAAGAAATTAAAATGGCTAT
		TrSafe_AY_SA_Seq3_ID31_B3	TTTTAATAAACCAGCACGTCTA
		TrSafe_AY_SA_Seq3_ID31_FIP*	GGTTTTACCAAGTTTACTAGCACCCAGATGATTTCTGAGCATCGT
		TrSafe_AY_SA_Seq3_ID31_BIP*	ATCAGGGGCTCGTTAGATTTTAACACATCATAAACATCGATTTTAAACCT

Seq11	ID24	TrSafe_AY_SA_Seq11_ID24_F3	TGAAGCAGGACACGCTAT
		TrSafe_AY_SA_Seq11_ID24_B3	AATTCTTCAGCCACACGT
		TrSafe_AY_SA_Seq11_ID24_FIP*	CCGAATTCCCACACGGAATAATATTAAGTTGGAACATGCCCA
		TrSafe_AY_SA_Seq11_ID24_BIP*	ATGACACCAGAAACAGAAACTTTCTCCCCCTAAATAAGATGTAATTTGG
	ID8	TrSafe_AY_SA_Seq11_ID8_F3	TGAAGCAGGACACGCTAT
		TrSafe_AY_SA_Seq11_ID8_B3	AATTCTTCAGCCACACGT
		TrSafe_AY_SA_Seq11_ID8_FIP*	CCGAATTCCCACACGGAATAATATTAAGTTGGAACATGCCCA
		TrSafe_AY_SA_Seq11_ID8_BIP*	AATGACACCAGAAACAGAAACTTTCCCCCCTAAATAAGATGTAATTTGG
	ID10	TrSafe_AY_SA_Seq11_ID10_F3	TGAAGCAGGACACGCTAT
		TrSafe_AY_SA_Seq11_ID10_B3	AATTCTTCAGCCACACGT
		TrSafe_AY_SA_Seq11_ID10_FIP*	CCGAATTCCCACACGGAATAATTAAGTTGGAACATGCCCA
		TrSafe_AY_SA_Seq11_ID10_BIP*	AATGACACCAGAAACAGAAACTTTCCCCCCTAAATAAGATGTAATTTGG
	ID55	TrSafe_AY_SA_Seq11_ID55_F3	TGAAGCAGGACACGCTAT
		TrSafe_AY_SA_Seq11_ID55_B3	CAAAAATTAATTCTTCAGCCACA
		TrSafe_AY_SA_Seq11_ID55_FIP*	CCGAATTCCCACACGGAATAATAAATTAAGTTGGAACATGCCCA
		TrSafe_AY_SA_Seq11_ID55_BIP*	AATGACACCAGAAACAGAAACTTTCCGTCCCCCTAAATAAGATGT
	AY-SA_ftsH	AY-SA_ftsH_F3	TGAAGCAGGACACGCTAT
		AY-SA_ftsH _B3	CAAAAATTAATTCTTCAGCCACA
		AY-SA_ftsH _FIP*	CCGAATTCCCACACGGAATAATTAAGTTGGAACATGCCCA
		AY-SA_ftsH _BIP*	AATGACACCAGAAACAGAAACTTTCCGTCCCCCTAAATAAGATGT
	ID71	TrSafe_AY_SA_Seq11_ID71_F3	TGAAGCAGGACACGCTAT
		TrSafe_AY_SA_Seq11_ID71_B3	CAAAAATTAATTCTTCAGCCACA
		TrSafe_AY_SA_Seq11_ID71_FIP*	CCGAATTCCCACACGGAATAATAAATTAAGTTGGAACATGCCCA
		TrSafe_AY_SA_Seq11_ID71_BIP*	ATGACACCAGAAACAGAAACTTTCTCGTCCCCCTAAATAAGATGT
	ID90	TrSafe_AY_SA_Seq11_ID90_F3	TGAAGCAGGACACGCTAT
		TrSafe_AY_SA_Seq11_ID90_B3	CAAAAATTAATTCTTCAGCCACA
		TrSafe_AY_SA_Seq11_ID90_FIP*	CCGAATTCCCACACGGAATAATTAAGTTGGAACATGCCCA
		TrSafe_AY_SA_Seq11_ID90_BIP*	TGACACCAGAAACAGAAACTTTCTCGTCCCCCTAAATAAGATGT

*All FIP and BIP primers were HPLC cleaned.