

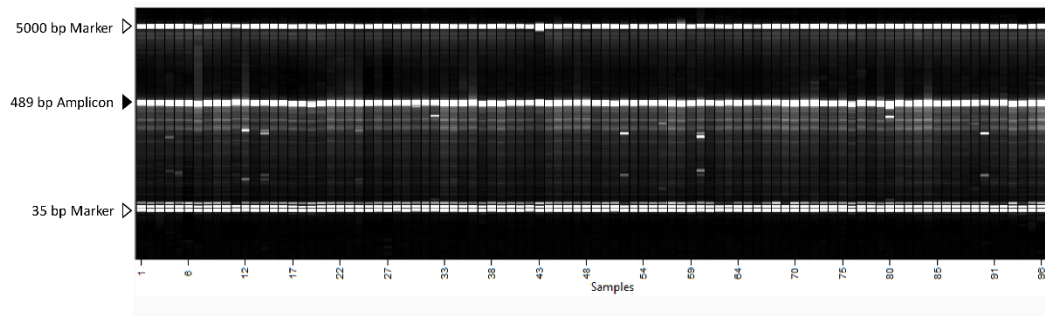


Figure S1. Mutation detection using capillary electrophoresis. Screening of a 489-bp fragment of *eIF4E1-S* by TILLING. DNA fragments of 35 and 5000 bp were used as markers.

Table S1. Primers used in PCR and dCAPS assay.

Primer	Primer sequence (5' to 3')	Product size
isoform_c_mF_1	AAACTTTAGCCACTAATATTCCACC	489 bp
isoform_c_mR_1	TATATCATTTAAGGAGACTAAAAG	
C_dCAPS_F1	TCAAACCTAAGCATCCATTAGAGAATT <u>C</u> ATG ¹	327 bp (undigested)
C_dCAPS_R1	TACATTAGTAGTGTGTTTGATTGTTGACGGAG	300, 27 bp (digested)

¹ The underlined letter indicates the introduced single nucleotide polymorphism (one mismatch) by dCAPS forward primer.

Table S2. ELISA of PVY resistance of selected tobacco lines.

Individual	Positive/Negative signals	ELISA
M3_918P-1	-	0.089
M3_918P-2	-	0.092
M3_918P-3	-	0.092
M3_918P-4	-	0.092
M3_918P-5	-	0.089
Yunyan87-1	+	1.946
Yunyan87-2	+	2.091
Yunyan87-3	+	1.955
Negative control	-	0.084
Positive control	+	2.081

Table S3. ELISA of PVY resistance of selected tobacco plants subjected to the inoculation of different potyvirus strains.

Treatment	Individual	14 DPI	21 DPI
		ELISA	ELISA
Mock	BC ₄ F ₃ -1	0.107	0.009
	BC ₄ F ₃ -2	0.104	0.006
PVY ^O	BC ₄ F ₃ -3	0.105	0.008
	BC ₄ F ₃ -4	0.105	0.007
PVY ^N	BC ₄ F ₃ -5	0.105	0.007
	BC ₄ F ₃ -6	0.105	0.007
PVY ^{NTN}	BC ₄ F ₃ -7	0.102	0.004
Mock	TN86-1	0.129	0.031
PVY ^O	TN86-2	0.104	0.006

	TN86-3	0.105	0.008
PVY ^N	TN86-4	0.102	0.004
	TN86-5	0.105	0.007
PVY ^{NTN}	TN86-6	0.113	0.015
	TN86-7	0.113	0.015
Mock	Yunyan87-1	0.145	0.042
PVY ^O	Yunyan87-2	3.789	3.686
	Yunyan87-3	3.895	3.792
PVY ^N	Yunyan87-4	3.943	3.840
	Yunyan87-5	3.738	3.635
PVY ^{NTN}	Yunyan87-6	3.601	3.498
	Yunyan87-7	3.368	3.265
