

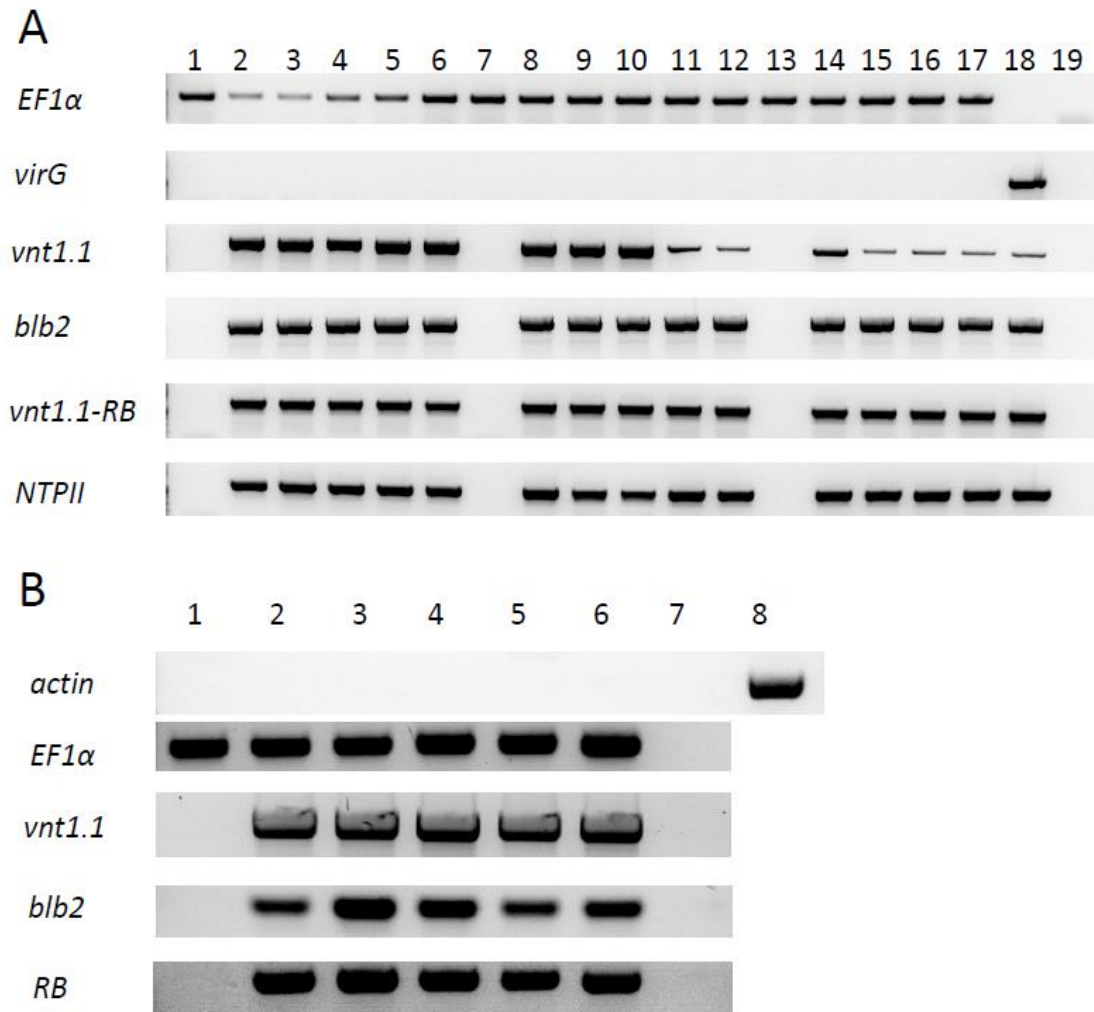


Figure S1. (A): PCR results to confirm the presence of the 3 R-gene construct in transgenic lines on genomic DNA. Specific primer pairs (see Table S1) were used to amplify a house keeping gene in potato genome (*EF1α*), an *Agrobacterium* gene (*virG*) and genes in in T-DNA construct (*vnt1.1*, *blb2*, *NTPII* and *vnt1.1-RB*). Genomic DNA templates were 1: Désirée WT, 2–6: Désirée 3R 1 to 5, 7: King Edward WT, 8–12: King Edward 3R 1 to 5, 13: B101 WT, 14–17: B101 3R 1 to 4, 18: *Agrobacterium* cells contains pCIP99-3R, 19: negative control with no genomic DNA added. **(B)** PCR results from cDNA to confirm the expression of all three R-genes in King Edward 3R transgenic lines (*vnt1.1*, *Blb2* and *RB*). The potato *actin_gene_X55750* was used as a negative control, to identify genomic DNA contamination (primer pair spanning an intron-exon border). *EF1α* as a house keeping gene in potato (positive control). Templates were 1: King Edward WT, 2–6: King Edward 3R 1 to 5, 7: no cDNA added, 8: postive control for actin, King Edward genomic DNA.

Table S1. Primers used in this study.

Template	Primer Name	Primer sequence	Fragment length, bp	Annealing temp. (°C)
gDNA/cDNA	St Ef1 α F2	GAACGTGCCCTGTTGGTCGT	220	60
	St Ef1 α R2	GGGTCATCCTTGGAGTTTGA		
gDNA	VirG+	CGCACGCGCAAGGCAACC	606	60
	VirG-	GCCGGGGCGAGACCATAGG		
gDNA/cDNA	Vnt1.1_R1	GTAAGAGTCAACGGCCCAAG	568	60
	Vnt1.1_F1_5UT	CCAAACTCACAGCCATGAAC		
gDNA	blb2_R1	ATCCTTCTGGCCAAGGATCT	758	60
	blb2_F2	AGTTGCAAGTGCTGTTACAG		
gDNA	Rpi-vnt1.1 RB-F	GCTGCGTTAATTATTTACAT	587	55
	Rpi-vnt1.1 RB-R	GTTGGTTGATTACTTGAAC		
gDNA	LBd_NPTII_F	TGACGAGTTCTTCTGAGCGG	309	60
	LBd_NPTII_R	CAACTTAATAACACATTGCGGACG		
cDNA	qRT_RB-F	CACGAGTGCCCTTTTCTGAC	214	47
	qRT-RB-R	ACAATTGAATTTTACTAGACTT		
cDNA	qRT-Rpi-blb2F	TTCAAAACCCCAAATAAGTTTCAAC	81	55
	qRT-Rpiblb2-R	CCATGCTTGCTGTACTTTGCA		
cDNA/gDNA	St PoAc71 F2043i (actin)	TTGTTGGGCTCCTACCAAAG	177	60
	St PoAc71 R2219 (actin)	GAGGGGCCAGACTCATCATA		