

Table S1 List of primers used in this study

Primer name	Primer sequence (5'–3')	Annealing temperature	Product size and notices
Primers used for viral DNA detection			
PepYLCIV uni 2F PepYLCIV uni R	GTGYWGTAYCTTCTGYGGAAYTKGA ACGCCGTAAACGATGTTTAYGCG	63.2	For detecting PepYLCIV and PepYLCIV viral DNA 696 bp
TRV2 insert F TRV2 insert R	TACTCAAGGAAGCAGCATGA CCGATCAATCAAGATCAGTC	60	For detecting TRV2::GFP and TRV2::CaRDR
Primers used for quantification of begomoviral DNA			
PepYLCIV A Real 2F PepYLCIV A Real 2R	CTTGGATAGTGGAGGGTGGTC TTTGAGATGTGGTCCCAGAAA	58	For quantifying the PepYLCIV viral DNA 80 bp
IV AV Real F IV AV Real R	GCTTTCCTCAGGTGTGGTTG TCCCCTCTATTCAAGGTGCTG	58	For quantifying the PepYLCIV viral DNA 102 bp
25s-rRNA 2F 25s-rRNA 2R	GCCCGGTGCTACTCATAACC GATCCATTTTGCCGACTTCC	58	For quantifying the pepper genomic DNA 93 bp
Primers used for cloning and sequencing candidate genes			
CaRDR full F CaRDR 5half R	AATAGTGATTATCCAAAGGTTCCA GGTCTATGACTGATTGAACTATCTCC		For cloning partial ORF of <i>CaRDR3a</i>
CaRDR 3half F CaRDR 3half 2F CaRDR full R	AACTATGAGAATTTTGTTGATACCG AATAGGGAACCGCCTTTGTT ATGGCATCGACATATACATAACAT		For cloning partial ORF of <i>CaRDR3a</i> PG1-1: CaRDR 3half F, SCM334: CaRDR 3half 2F
Primers used for qPCR analysis of <i>CaRDR3a</i>			
CaRDR5 Real 2F CaRDR5 Real 2R	GAAGTACAAGACGTTGCTCTATGGT GTGGTCCTCGCATGGTCATA	58	For analyzing <i>CaRDR3a</i> expression 86 bp
Actin Real F Actin Real R	TAAGGCTGGATTTGCTGGTG CCTTTTGACCCATCCCTACC	58	For analyzing <i>CaActin</i> expression 101 bp
Primers use for constructing VIGS vector			
CaRDR VIGS F CaRDR VIGS R	GCCTCCATGGGGATCCTCATCTAATGTGAGCCCAAC ATGCCCGGGCCTCGAAACATGATTTTCCAAAAGAATT	60	For cloning <i>CaRDR3a</i> to TRV2 200 bp

K = G or T; W = A or T; Y = C or T