

## Supplementary material

### Supplemental Table S1 Primers used for amplify the target gene

Table S1 Primers used for amplify the target gene

Name of deletion fragment	oligonucleotide primers	length
VpRFP1-A	5'-AGATCTGCATGATTACCGATTCGATCACCAGC-3' 5'-GTGCAGCTAAGACCTTGCAATCATGCTATAAGAG-3'	1053bp
VpRFP1-B	5'-AGATCTGCAAGAAGAAGAGGACGAACAGGACA-3' 5'-GTGCAGCTAAGACCTTGCAATCATGCTATAAGAG-3'	999bp
VpRFP1-C	5'-AGATCTGCATGATTACCGATTCGATCACCAGC-3' 5'-GTGCAGTTCCTGCAACCTGGACAGCG-3'	953bp
VpRFP1-D	5'-AGATCTGCAACAATGGATGTAGGGGAGAATCG-3' 5'-GTGCAGCTAAGACCTTGCAATCATGCTATAAGAG-3'	915bp
VpRFP1-E	5'-AGATCTGCAAGAAGAAGAGGACGAACAGGACA-3' 5'-GTGCAGTTCCTGCAACCTGGACAGCG-3'	897bp
VpRFP1-F	5'-AGATCTGCAACAATGGATGTAGGGGAGAATCG-3' 5'-GTGCAGTTCCTGCAACCTGGACAGCG-3'	822bp
VpRFP1-G	5'-AGATCTGCAACAATGGATGTAGGGGAGAATCG-3' 5'-GTGCAGTTCCTGCAACCTGGACAGCG-3'	813bp
VpRFP1-H	5'-AGATCTGCAAGAAGAAGAGGACGAACAGGACA-3' 5'-GTGCAGTTCCTGCAACCTGGACAGCG-3'	768bp
VpRFP1-I	5'-AGATCTGCAACAATGGATGTAGGGGAGAATCG-3' 5'-GTGCAGTTCCTGCAACCTGGACAGCG-3'	684bp
VpRFP1-J	5'-AGATCTGCTGCCCCATATGCTATGAAGATTTGG-3' 5'-GTGCAGCTAAGACCTTGCAATCATGCTATAAGAG-3'	231bp
VpRFP1-K	5'-AGATCTGCATGATTACCGATTCGATCACCAGC-3' 5'-GTGCAGCTTGACTTTGGAAAGCCATTGCTC-3'	138bp
VpRFP1-L	5'-AGATCTGCTGCCCCATATGCTATGAAGATTTGG-3' 5'-GTGCAGTTCCTGCAACCTGGACAGCG-3'	129bp
VpRFP1-M	5'-AGATCTGCAAGCCATATGATTGTGATCCTGTTGG-3' 5'-GTGCAGCTAAGACCTTGCAATCATGCTATAAGAG-3'	102bp
VpRFP1-N	5'-AGATCTGCAAGAAGAAGAGGACGAACAGGACA-3' 5'-GTGCAGCTTGACTTTGGAAAGCCATTGCTC-3'	84bp
VpRFP1-O	5'-AGATCTGCATGATTACCGATTCGATCACCAGC-3' 5'-GTGCAGGCCGAACCTCTTAGAGATCGAG-3'	54bp

Supplemental Table S2 Primers used for RT-PCR and Real-time PCR analysis of gene expression

Table 2 Primers used for RT-PCR and Real-time PCR analysis of gene expression

Name	Accession no.	Forward primer sequences (5'-3')	Reverse primer sequences (5'-3')
VpRFP1	FJ356672	GCAAACAGTCCCACAAGTC	CTGAACAACACCCACCACT
VvGAPDH	EF192466	TTCACTGACAAGGACAAGGC	CCAACAACGAACATAGGAGC
AtPR1	At2g14610	CCACAAGATTATCTAAGGG	CCTGCATATGATGGCTCCT
AtPR2	At3g57260	CCACCAATGTTGATGATTCTTCT	ATACTCATCCCTGAACCTTCCTT
AtPR3	At3g12500	CGCTACTACGGAAGAGGACC	TTACCACCAGGATTAACACCA
AtPDF1.2	At5g44420	TAATCATCATGGCTAAGTTTGCTT	ATACACACGATTTAGCACCAAAGA
AtActin	NM_179953	CGATGAAGCTCAATCCAAACGA	CAGAGTCGAGCACAATACCG

Supplemental Fig. S1

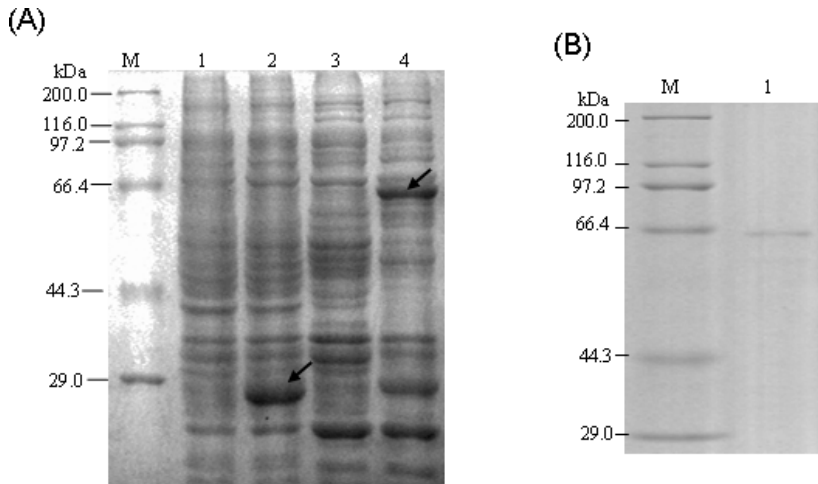


Fig. S1 *VpRFP1* express in *E. coli* and purification of GST/*VpRFP1* fusion protein. (A) The result of SDS-PAGE of expression of fusion protein GST/*VpRFP1*. M: Protein marker, 1: The control of not added IPTG, 2: The control induced 4h with 0.1mM IPTG, 3: The recombinant sample with no IPTG induced, 4: The recombinant sample induced 4 h with 0.1mM IPTG; (B) purification of the GST/*VpRFP1* fusion protein. M: Protein marker, 1: purification product of GST/*VpRFP1* fusion protein.