**Primers used in this study**

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| --- | --- |
| **Primer name Sequence (5’ to 3’)**  |  **Restriction enzyme sitesa Comment** |
| **Construction and validation of *BbCRPA* gene knock-out and complemented strains** *BbCRPA*LB-F cgGAATTCcgCGATGTCGTTCGAGTCGAAT*BbCRPA*LB-R cgGAATTCcgGTGTAGGCGTTCCAGGATGA *BbCRPA*RB-F gcTCTAGAgcAGCTTGCCATAATGTGCAAG*BbCRPA*RB-R cccAAGCTTgggTTCTTGGTGGTGTCGTAGGCCom-F gACTAGTGGGATGACCCGGAACTCCTGAGAACom-R gcTCTAGACTCACCAACACATGAAGGCG MCS-F CGTAAGAGAATGTCGACCAT MCS-R CTGAATCATCGACACGTCGT*Sur*-F aaggaaaaaaGCGGCCGCGACGACTGAGAACAGATTCG*Sur*-R cgGGATCCGTCGACGTGAGAGCATGCAATTC**Construction of tagged fusion proteins***BbCRPAN***-**F aaggaaaaaaGCGGCCGCaaggaaaaaaATGGCTGGACGACCTCCTGG*BbCRPA* (*mF*)-F GGTGGTTCTGGTGGTGGTTCTGGTATGGCTGGACGACCTCCTGG*BbCRPAN*-R cgGGATCCCTATTGCGGACGCGAGCTGG*eGFPN*-F aaggaaaaaaGCGGCCGCGTCGCCACCATGGTGAGCAA*eGFPN*-R aaggaaaaaaGCGGCCGCACCAGAACCACCACCAGAACCACCGGACTTGTACAGCTCGTCCA *eGFP*(*NF*)-R ACCAGAACCACCACCAGAACCACCGGACTTGTACAGCTCGTCCA*BbRab5*-F GGTGGTTCTGGTGGTGGTTCTGGTATGGCCTCCCGAGGACCCCCT*BbRab5*-R cgGGATCCTTAACAGCTGCAAGGGCCAG*BbRab7*-F GGTGGTTCTGGTGGTGGTTCTGGTATGTCTTCACGCAAGAAGGT*BbRab7*-R cgGGATCCTTAACAGGCACAGCCGTCGC*mRFP*N-F aaggaaaaaaGCGGCCGCATGGCCTCCTCCGAGGACGT*mRFP*N-R ACCAGAACCACCACCAGAACCACCGGCGCCGGTGGAGTGGCGGCCCTCGGCGCGCTCGTACTGTT*P1*-F gcTCTAGAGTTGGGTATGCTCCGGCGCG *T1*-R gcTCTAGAAAGAAGGATTACCTCTAAAC *mPH*-F gcTCTAGATCGACCCATCCGGTGCTCTG *mPH-*R gcTCTAGAACTAGTCAATAGTGGTGAAA *DRS2* (*Fu*)-F GGTGGTTCTGGTGGTGGTTCTGGTATGAATGACGACAGAGAAAC*DRS2*-R aaggaaaaaaGCGGCCGCTCATATATCAAATGAAATATCATCTCTCG*P2*-F gACTAGTGTTGGGTATGCTCCGGCGCG*T2*-R gACTAGTAAGAAGGATTACCTCTAAAC*mRFP*-F GTTTTTACCAAAGTTTCTTTTCGAGATGGCCTCCTCCGAGGACGT*mRFP*-R cgGGATCCTTAGGCGCCGGTGGAGTGGC*N268*-R TGATGACGTCCTCGGAGGAGGCCATCTCGAAAAGAAACTTTGGTA *N258-268*-F aaggaaaaaaGCGGCCGCATGTTTGCATCGTTTTTACCAAAGTTTCTTTTCGAGATGGCCTCCTCCGAGGACGT*N258-268* (*K-A*)-F aaggaaaaaaGCGGCCGCATGTTTGCATCGTTTTTACCAGC*N259-268*-F aaggaaaaaaGCGGCCGCATGGCATCGTTTTTACCAAAGTTTCTTTTCGAGATGGCCTCCTCCGAGGACGT**Site-directed mutagenesis of *BbCRPA*** *BbCRPA*-F aaggaaaaaaGCGGCCGCATGGCTGGACGACCTCCTGG *Bb* (*D614R*)-first-R AGTGAGAGTACCAGTCTTGCGAGAAAAGACATACTCG ACCATAC *Bb* (*D614R*)-second-F TCTCGCAAGACTGGTACTCTCACTTGCAACATGATGGA GTTCAA*Bb* (*I562E*)-first-R GTTCAACAGTGACAAATAGTGACTCGGGAACGAGGGCAGAGAACA*Bb* (*I562E*)-second-F GGTCCTGTTCTCTGCCCTCGTTCCCGAGTCACTATTTGTCACTGT*Bb* (Δ*C1325-1359*)-R cgGGATCCCTAGTAGCCGCGCTGCTTTCGCAT*Bb* (Δ*C1326-1359*)-R cgGGATCCCTAGCCGCGCTGCTTTCGCATGC*Bb* (Δ*N*)-F aaggaaaaaaGCGGCCGCATGCAATTCTCCAAAGTTGCCAA*Bb* (Δ*C*)-R cgGGATCCCTACCACGCAAAGTCGCGGAGCA *Bb* (*1325*)-R cgGGATCCCTATTGCGGACGCGAGCTGGCCATTTCACCGTACCGTCCACGGTTCTTGGTGGTGTCGTAGGCCTGCAGCACGCGGGTCTGGCTCTCGTCGGCCTGGGAAAAGGCTGCGCCGCGCTGCTTTCGCATGC*Bb* (*1325*-*1341*)-R cgGGATCCCTATTGCGGACGCGAGCTGGCCATTTCACCGTACCGTCCACGGTTCTTGGTGGTGTCTGCGGCCTGCAGCACGCGGGTCTGGCTCTCGTCGGCCTGGGAAAAGGCTGCGCCGCGCTGCTTTCGCATGC*Bb* (*1325*-*1350*)-R cgGGATCCCTATTGCGGACGCGAGCTGGCCATTTCACCTGCCCGTCCACGGTTCTTGGTGGTGTCGTAGGCCTGCAGCACGCGGGTCTGGCTCTCGTCGGCCTGGGAAAAGGCTGCGCCGCGCTGCTTTCGCATGC*Bb* (*1341*-*1350*)-R cgGGATCCCTATTGCGGACGCGAGCTGGCCATTTCACCTGCCCGTCCACGGTTCTTGGTGGTGTCTGCGGCCTGCAGCACGCGGGTCT*Bb*(*1325*-*1341*-*1350*)-R cgGGATCCCTATTGCGGACGCGAGCTGGCCATTTCACCTGCCCGTCCACGGTTCTTGGTGGTGTCTGCGGCCTGCAGCACGCGGGTCTGGCTCTCGTCGGCCTGGGAAAAGGCTGCGCCGCGCTGCTTTCGCATGC**N/C-terminal tail exchange between BbCrpa and Drs2p***Bb*N*-*R ACCAATTGTGGTGTATCTATTAGTCTCGAAAAGAAACTTTGGTA*DRS2TMD*-F TTTTTACCAAAGTTTCTTTTCGAGACTAATAGATACACCACAAT*DRS2TMD*-R GTCGGTACATGCGCTTGGCATACTTTACCAGTGCAAAAATT GGTA*DRS2*-F aaggaaaaaaGCGGCCGC ATGAATGACGACAGAGAAAC*BbC* -F CGTTTTACCAATTTTTGCACTGGTAAAGTATGCCAAGCGCATGTA*BbCRPA-R* aaggaaaaaaGCGGCCGCCTATTGCGGACGCGAGCTGG*DRS2N* -R GACATTGGCAACTTTGGAGAATTGTGGCGAGACGTGAGGCACCT*BbTMD*-F CAACAGGTGCCTCACGTCTCGCCACAATTCTCCAAAGTTGCCAA*BbTMD*-R TATAGTACTTCCATAGAAAATCTCTCCACGCAAAGTCGCGGAGCA*DRS2*C-F CTGCCTGCTCCGCGACTTTGCGTGGAGAGATTTTCTATGGAAGTA**Gene** **expression analyses** *BbCRPA*ex-F CTGGAGGAGTATGCTTCCGA *BbCRPA*ex-R TATCACCAGTGAGGACCCAG*BbCRPA* (plant)-F AACAGGCCGATAATGCGCTA*BbCRPA* (plant)-R GTCTCGGGAAGTCCTTGCTT*actin*-F TTGGTGCGAAACTTCAGCGTCTAGTC*actin*-R TCCAGCAAATGTGGATCTCCAAGCAG*AtActin*2-F GATTCAGATGCCCAGAAAGTCTTG*AtActin*2-R TGGATTCCAGCAGCTTCCAT*GhHis3*-F CCGTCCTGGAACTGTTGCTCT*GhHis3*-R ACCCACAAGGTATGCCTCTGC**Planttransformation***pBbCRPA*-F cgGGATCCcgATGGCTGGACGACCTCCTGG*pBbCRPA*-R ggACTAGTccCTATTGCGGACGCGAGCTGG**Southern blot***BbCRPA*-F1 GCGCAATGTACAGCTACAC*BbCRPA*-R1 AGGCGTTCAAGAATGACGGT |  *Eco*RI Cloning of 5'-end of *BbCRPA**Eco*RI *Xba*I Cloning of 3'-end of *BbCRPA**Hin*dIII *Spe*I *BbCRPA* complemented strain construction*Xba*I *BbCRPA* mutant/complemented strain screening*Not*I Cloning of *Sur* cassette *Bam*HI*Not*ICloning *BbCRPA* ORF  *Bam*HI  *Not*ICloning of *eGFP**Not*I   Cloning of *BbRab5* *Bam*HICloning of *BbRab7* *Bam*HI *Not*I Cloning of *mRFP*  *Xba*I Cloning of *mRFP*::*Rab7* cassette*Xba*I*Xba*I Cloning of *mRFP*::*PHOSBP* cassette *Xba*I  Cloning of *DRS2* ORF *Not*I  *Spe*I Cloning of *eGFP*::*DRS2* cassette *Spe*I Cloning of *mRFP* *Bam*HI Cloning of part of BbCrpa N-terminus*Not*ICloning of part of BbCrpa N-terminus  *Not*I Cloning of part of BbCrpa N-terminus*Not*I Cloning of part of BbCrpa N-terminus*Not*I Cloning part of *BbCRPA* ORF  *Bam*HI*Bam*HI*Not*I *Bam*HI*Bam*HI *Bam*HI     *Bam*HI*Bam*HI *Bam*HI  Cloning N-terminus of BbCrpa Cloning the transmembrane domains of Drs2p*Not*I Cloning of *DRS2* ORFCloning C-terminus of BbCrpa*Not*I Cloning of *BbCRPA* ORFCloning N-terminus of Drs2p Cloning of the transmembrane domains of BbCrpaCloning C-terminus of Drs2p qRT-PCR analysis of *BbCRPA for B. bassiana*qRT-PCR analysis of *BbCRPA* for plantsInternal reference in qRT-PCR analysis*Bam*HI Cloning of *BbCRPA* ORF*Spe*I Cloning of probe for southern blot  |

**aUnderlined sequences are restriction enzyme sites and lowercase letters denote protective bases.**