

TABLE S2 PCR primers used in this study.

| Mutants | Primers * | Primer sequences | RE** | Note | |
|--|--------------|--|--------------|---------------------------------------|---------------------------------|
| <i>Beauveria bassiana</i> | | | | | |
| OE:: <i>BBA_07334</i> (<i>tenR</i>) | Uf | TCAATAACAAC TAGTTCTAGAATGGAGCCCGGCC CGGCG | <i>XbaI</i> | Overexpression of <i>tenR</i> | |
| | Ur | CGCGGTGGCGGCCGCTCTAGATCACAGCGGCAG GCCTAC | | | |
| OE:: <i>BBA_07339</i> | Uf | TCAATAACAAC TAGTTCTAGAATGGAAACAACG GTCAAGGC | <i>XbaI</i> | Overexpression of <i>BBA_07339</i> | |
| | Ur | CGCGGTGGCGGCCGCTCTAGATCATTCTGTCGATT GAAACAT | | | |
| <i>ΔtenS</i> | Uf | CTGCAGCCCGGGGGATCCTCTTATTTCTAGGGTA GGCG | <i>BamHI</i> | Gene deletion | |
| | Ur | ATCTTCTGTCGACGGATCATTGGGACAAGGCGTT CA | | | |
| | Df | CGAGATCTGATGAAAAACGGCAGGTATTCCACT | <i>SpeI</i> | | |
| | Dr | GGCCGCTCTAGAACTAGTTCTACGGTTCGCCACA AA | | | |
| | F | GGAGACAGTTCTGCCGACTT | / | | Deletion mutant verification |
| | R | ATGCGATTGGAGATGATGC | | | |
| OE:: <i>tenRΔtenS</i> | Uf | CTGCAGCCCGGGGGATCCTCTTATTTCTAGGGTA GGCG | <i>BamHI</i> | Gene deletion | |
| | Ur | ATCTTCTGTCGACGGATCATTGGGACAAGGCGTT CA | | | |
| | Df | CGAGATCTGATGAAAAACGGCAGGTATTCCACT | <i>SpeI</i> | | |
| | Dr | GGCCGCTCTAGAACTAGTTCTACGGTTCGCCACA AA | | | |
| | F | GGAGACAGTTCTGCCGACTT | / | | Deletion mutant verification |
| | R | ATGCGATTGGAGATGATGC | | | |
| OE:: <i>tenRΔtenA</i> | Uf | CTGCAGCCCGGGGGATCCTTTGTCAACTTTCGTA ATCC | <i>BamHI</i> | Gene deletion | |
| | Ur | ATCTTCTGTCGACGGATCGGTCTCAAGTCTGCCT CA | | | |
| | Df | CGAGATCTGATGAATCCAGTCGTCGCCATCAC | <i>SpeI</i> | | |
| | Dr | GGCCGCTCTAGAACTAGTTAAACCAACGCCATTA CC | | | |
| | F | TTTGCCGTTTGGTCTCTCC | / | | Deletion mutant verification |
| | R | CCTCCATACCTTATCCTGT | | | |
| OE:: <i>tenRΔtenB</i> | Uf | CTGCAGCCCGGGGGATCCGAACGGCGAGTCACA ACA | <i>BamHI</i> | Gene deletion | |
| | Ur | ATCTTCTGTCGACGGATCCGGGAAATGGGAGGG TAG | | | |
| | Df | CGAGATCTGATGAAAGGCAACAAGCCGATTTA | <i>SpeI</i> | | |
| | Dr | GGCCGCTCTAGAACTAGTCCAGCCAAGGTCGTA GTG | | | |

| | | | | | |
|-------------------------------------|-------|--|-------|------------------------------|------------------------------|
| | F | TGGAACGGCGAGTCACAA | / | Deletion mutant verification | |
| | R | GAGACGCATCGCTTACG | | | |
| OE::tenRΔBbGT1 | Uf | CTGCAGCCCGGGGGATCCCCATTTGTTCCCGTAA GT | BamHI | Gene deletion | |
| | Ur | ATCTTCTGTGCGACGGATCTCAACCATTCTCGCTTT T | | | |
| | Df | CGAGATCTGATGAAGACCAACTTCTTGTCCCTG | SpeI | | |
| | Dr | GGCCGCTCTAGAAGTAGTACCTTTATCGCCTGCT GT | | | |
| | F | CTCGTCATCTAAACCTCG | / | | Deletion mutant verification |
| | R | CATAGCCAGCGTTCAAAA | | | |
| OE::tenRΔBbMT1 | Uf | CTGCAGCCCGGGGGATCC TGATTGAAGGGCGAGGAA | BamHI | Gene deletion | |
| | Ur | ATCTTCTGTGCGACGGATC GCATCTGCGGGTAGAACG | | | |
| | Df | CGAGATCTGATGAA TATCCAGTCACCTGCCCTAG | SpeI | | |
| | Dr | GGCCGCTCTAGAAGTAGT ACCGACCCTGAACGAAAT | | | |
| | F | TCGGTCTTCGGACATTTA | / | | Deletion mutant verification |
| | R | CCATTTGTTCCCGTAAAGT | | | |
| OE::tenRΔBbGT1 /MT1 | Uf | CTGCAGCCCGGGGGATCCTTGTCTGCCACATTT TG | BamHI | Gene deletion | |
| | Ur | ATCTTCTGTGCGACGGATCCGACCAACTTCTTGTC CCT | | | |
| | Df | CGAGATCTGATGAATGTTACGAGGTTTAGATGAC G | SpeI | | |
| | Dr | GGCCGCTCTAGAAGTAGTGCAACTGCCTGGATAC TTT | | | |
| | F | CGCCCTAGTAGATCAATCC | / | | Deletion mutant verification |
| | R | CACCACTGGCTGAGTATGT | | | |
| OE::tenRΔBbGT2/ MT2 | Uf | TCATCTTCTGTGCGAC AACCCTCAATACACCAACCT | PstI | Gene deletion | |
| | Ur | TTGATATCGAATTCC CAGAAGCCCTCTACACCC | | | |
| | Df | CCGCTCTAGAAGTAG GAGCCCTACCAGCTATGA | SpeI | | |
| | Dr | GTCACCGAGATCTGA GAAGGTCCTCAACTACTATG | | | |
| | F | ACTGGCATCTTCTTAGGGC | / | | Deletion mutant verification |
| | R | GGACATTGTGGGAAACTCG | | | |
| <i>tubulin</i> | Tub-F | GAGATTGTGAGTGCTCCTACC | / | RT-PCR reference | |
| | Tub-R | CCCTTAGCCCAGTTGTTA | | | |
| <i>Metarhizium robertsii</i> | | | | | |
| ΔMrGT1 | Uf | GCTTGATATCGAATTCCTGCAGTCGCCTAAAGAT GCTGGG | PstI | Gene deletion | |
| | Ur | CAATATCATCTTCTGTGCGACTGTTTGTAACCTGA GACGGCC | | | |

| | | | | | |
|---------------------------------|----|--|--------------|---|------------------------------|
| | Df | GTCACCGAGATCTGATCCTTCCACTCATAACCTAGCTAG | | | |
| | Dr | AAGGGAACAAAAGCTGGAGGCAAGAAGGGTTTC | | | |
| | F | TTCACGTAAGTGGCAGGCAA | / | Deletion mutant verification | |
| | R | ATCTCGCCACTTCGCTCTTC | | | |
| <i>ΔMrMT1</i> | Uf | GCTTGATATCGAATTCCTGCAGTCCTTCCACTCA TAACCTAGCTAG | <i>BamHI</i> | Gene deletion | |
| | Ur | TCATCTTCTGTGCGACAGGCAAGAAGGGTTCCAG | | | |
| | Df | ACCGAGATCTGATGAAGTGTGAGATGGCTGCT CTCAGC | <i>XbaI</i> | | |
| | Dr | AGGGAACAAAAGCTGACTAGTTGCAGATCTCGA CCGTCAC | | | |
| | F | ACCCCTGAAGCGTCCATC | / | | Deletion mutant verification |
| | R | AAGGGCGAAGTGTCTCC | | | |
| <i>Saccharomyces cerevisiae</i> | | | | | |
| <i>BbGT1 (Leu-)</i> | F | TGACGACAAGCTTCATATGTCTCCGTCACGCAGC GAG | <i>NdeI</i> | Plasmid modification by including the both auxotrophic marker genes | |
| | R | TGGTGATGTCCGTTTAAACTCAATCCATAGCCGC CCACTTGAG | <i>PmeI</i> | | |
| <i>BbMT1 (Trp-)</i> | F | TGACGACAAGCTTCATATGGCTCTCGTCGAAAAA ATTCAGT | <i>NdeI</i> | | |
| | R | TGGTGATGTCCGTTTAAACTCAGTTTCTTTTGGC ATCAACATGT | <i>PmeI</i> | | |

*, Uf and Ur represent the forward and reverse primers for amplification of the upstream (5'-flanking) region for each target gene; Df and Dr represent the forward and reverse primers for amplification of the downstream (3'-flanking) region for each target gene; **, RE, restriction enzymes.