

FIG S1 Phylogenetic analysis of BbCmr1.

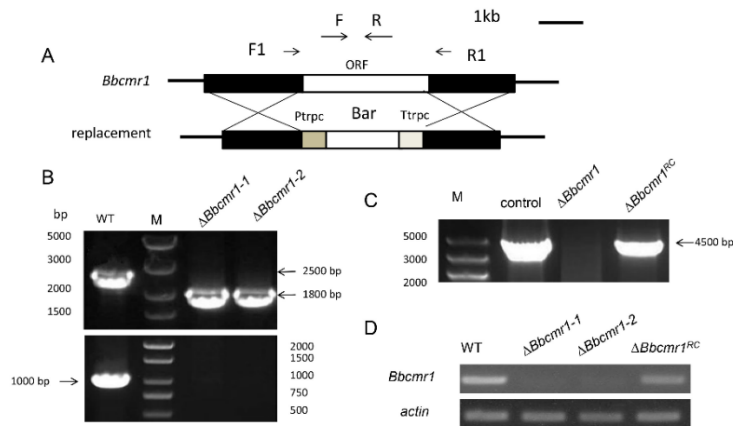


FIG S2 Screening of the *Bbcmr1* deletion strain and the complementation strain. (A) Schematic diagram of the *Bbcmr1* deletion mutant ($\Delta Bbcmr1$). (B) PCR screening of $\Delta Bbcmr1$ deletion strains. In the upper panel, primers located upstream of the left arm and downstream of the right arm were used. In the bottom panel, primer pairs located in the deletion region of *Bbcmr1* were used, and no fragment was observed in the mutant strain. (C) The complementation strain ($\Delta Bbcmr1^{RC}$) was confirmed by PCR. (D) $\Delta Bbcmr1$ and $\Delta Bbcmr1^{RC}$ were confirmed by RT-PCR, and the *actin* gene was used as a reference.

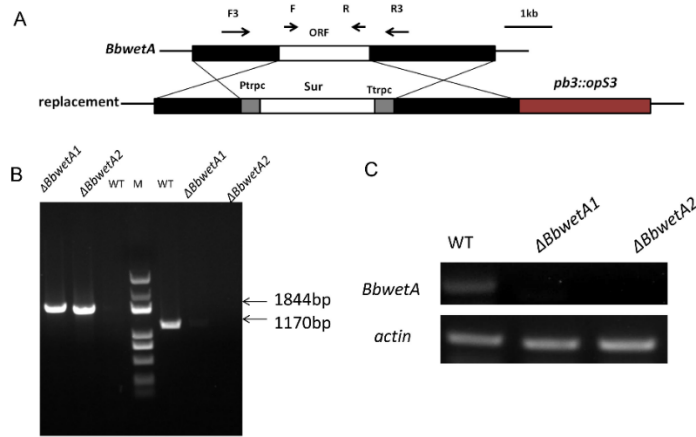


FIG S3 Screening of the *BbwetA* deletion strain. (A) Schematic diagram of the *BbwetA* deletion mutant ($\Delta BbwetA$). (B) PCR screening of $\Delta Bbcmr1$ deletion strains. In the left plane, primers located upstream of the left arm and in the *Sur* cassette were used. In the right plane, primer pairs located in the deletion region of *Bbcmr1* were used, and no fragment was observed in the mutant strain. (C) $\Delta BbwetA$ was confirmed by RT-PCR, and the *actin* gene was used as a reference.

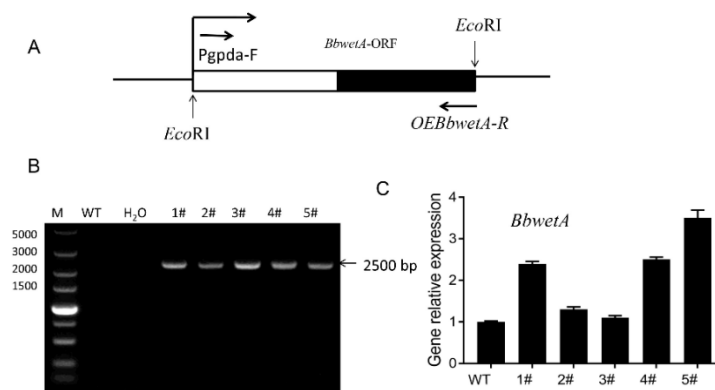


FIG S4 Screening of *BbwetA* overexpression in *Bbcmr1* deletion strains. (A) Schematic diagram of overexpression of *BbwetA* in the deletion mutant ($\Delta Bbcmr1$). (B) Primers were used to detect the *pgpda* and *BbwetA* genes. (C) Relative transcript levels of *BbwetA* in potential $\Delta Bbcmr1/BwetA^{OE}$.

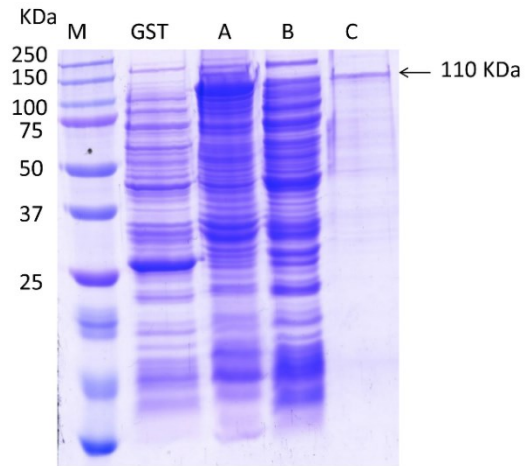


FIG S5 SDS–PAGE assay of BbCmr1 expressed in *E. coli*. GST, *E. coli*-produced GST protein. A and B, cell lysate precipitate and supernatant. C, purified BbCmr1 protein. M, protein marker.

Table S1 Primers in this study

For RT-PCR	
<i>qbrlA-F/R</i>	GACCAGTTCAACAGACAAG//CAGTAATCTTCGTGCTTCTC
<i>qabaA-F/R</i>	GCAAGTCTCCAGCCATAT//CTCCTCTTCGTCATAGTAGTC

<i>qwetA-F/R</i>	CGCAGACGAATTTGACTT//GCTGGTGGTTGAATACAT
<i>qcmr1-F/R</i>	ATGACGTCAATGCGCAGGTA//GGGACGAAATGTACCGGTGT
<i>qBBA 06297-F/R</i>	TACTTACTCTCAGGGCGGCT//CAAAAGCGGGGAGGTTGTTG
<i>qBBA 01877-F/R</i>	CCTCGTCTTTGAGTCGCAGT//AGTTCTGATTCTGGCCGACG
<i>qBBA 03717-F/R</i>	TTGCCGATGTCCGTATCGAG//TTCCCTCCGTGTTGTGGATG
<i>qBBA 05929-F/R</i>	TATACCAAGACCCCGAGCGA//AGCGATGGGGAAACCTTGAG
<i>qBBA 09760-F/R</i>	CTTTTTGTGTACGCCGGCAA//ATGTCTGTGCTGGCGTTGTA
<i>qBBA 05808-F/R</i>	CACACCAAGCCTGAGTCTGT//TTACAGAGCAAGGACAGCGG
<i>qBBA 07526-F/R</i>	AGCTCTCCCTCTACACTGG//TAGCTGTACTGGCACTGCAC
<i>qBBA 00246-F/R</i>	CGCCTCTAGACCCCGAGGTAT//ATGTCGCAGTAGCTGGCAAT
<i>qBBA 09129-F/R</i>	GAGGACGATCGAGCTCAGTG//GAGAAGACCGCCAGATAGC
<i>qBBA 04013-F/R</i>	ATCAAGCGACAAGGTTCCGT//CAAGGGCAGGAGTAGTGGTG
<i>qBBA 00676-F/R</i>	ATGTCACGACGCAGACTGTT//CTCGCACGATAGGCGTAAGT
<i>qBBA 02994-F/R</i>	TGATGCGCTGGCTCGATATT//AGAAGAGAGCGCTACCTGGA
<i>qBBA 02123-F/R</i>	AGGCATCATCTCGCGTGTAG//CCGCTCATGGAGTTTGTCTT
<i>qBBA 08495-F/R</i>	GGAGCGACTACCATCTCGTG//CAGTATGAACGCAATGCGGG
For deleted gene	
<i>cmr1-F1</i>	CAGCTATGACCATGATTACGAATTCGCGTGGTGGGAGTCGAGC
<i>cmr1-R1</i>	TCTTCTGTCGACACTAGTGAATTCGCGAGTCTCGCTCTGGGT
<i>cmr1-F2</i>	TTAGAGGTAATCCTTCTTTCTAGACGCTGGACGGGTCGTTTTGG
<i>cmr1-R2</i>	GCATGCCTGCAGGTCGACTCTAGATGGCACAGATTGAAAAGC
<i>cmr1-F</i>	CGAAGCGTTGAGGATTGCAGAG
<i>cmr1-F1</i>	CAGCTATGACCATGATTACGAATTCCTCCATGCCACATAAACCT
<i>wetA-R1</i>	TCTTCTGTCGACACTAGTGAATTCATGTAAAACGGCTCGGCGAC
<i>wetA-F2</i>	TTAGAGGTAATCCTTCTTTCTAGAATGTATTCAACCACCAGCGG
<i>wetA-R2</i>	GCATGCCTGCAGGTCGACTCTAGAGGATTCACATGTAGATGGCT
<i>wetA-F</i>	ACCTCAATGTAGCCAAGCCT
For overexpression gene	
<i>Pb3-wetA-down</i>	GGACGATGTCCAGAGAGCCATTGTTATTGATTA AAAAGGGTGA
<i>OEwetA-F</i>	TCACCCTTTTAATCAATAACAATGGCTCTCTGGACATCGTCC
<i>OEwetA-R</i>	CTGTCGACACTAGTGAATTC TCAAAGCTCAAACCCTTGCTCG
<i>Pb3-cmr1-down</i>	CCTTGACCGTTGTTTCCATTGTTATTGATTA AAAAGGGTGAGG
<i>OEcmr1-F</i>	CCTCACCCTTTTAATCAATAACAATG GAAACAACGGTCAAGG
<i>OEcmr1-R</i>	CTGTCGACACTAGTGAATTCCTTCGTCAGTAATCATCCA
For promoter (gene) fused with eGFP(RFP)	
<i>cmr1-pro-F</i>	CAGCTATGACCATGATTACGAATTCGCGTGGTGGGAGTCGAG
<i>cmr1-pro-R</i>	CGCCCTTGCTCACCATGATGACGACGCAAAGGTC
<i>GFP-F</i>	GACCTTTGCGTCGTCATCATGGTGAGCAAGGGCG
<i>GFP-R</i>	TCTTCTGTCGACACTAGTGAATTC TCACTTGTACAGCTCGTCCA
<i>mcherry-F</i>	TTCTGGTGGTGGTTCTGGTGTGAGCAAGGGCGAGGAG
<i>mcherry-R</i>	TCTTCTGTCGACACTAGTGAATTC TTA CTGTACAGCTCGT
<i>rds1-F(RFP)</i>	CAGCTATGACCATGATTACGAATTC TACTGGACAATGGCTTC
<i>rds1-R(RFP)</i>	AACCACCACCAGAACCACCACCAGCCTGATACACACCC
For yeast one-hybrid assay	
<i>BrlA -42AD-F</i>	TGCCTCTCCCGAATTCATGCAGTTTGAGTCGTCGAG
<i>BrlA -42AD-R</i>	AGTCCAAAGCTTCTCGAGTCAGTAATCTTCGTGCTTCT
<i>Cmr1 -42AD-F</i>	TGCCTCTCCCGAATTCATGGAAACAACGGTCAAGGC
<i>Cmr1-42AD-R</i>	AGTCCAAAGCTTCTCGAGCCTTCGTCAGTAATCATCCA
<i>WetA-P1-F</i>	ATTGAAAAGCTTGAATTCCTGCATCCCACCAACCAATC
<i>WetA -P1-R</i>	GAGCACATGCCTCGAGGAGACGGGCCTCACGCTTTT
<i>WetA -P2-F</i>	ATTGAAAAGCTTGAATTC AAAAGCGTGAGGCCCGTCTC
<i>WetA -P2-R</i>	GAGCACATGCCTCGAGAAACCAGAGAGCTTCAGCCG
<i>WetA -P3-F</i>	ATTGAAAAGCTTGAATTCACAATCACGGCTGAAGCTCT

WetA -P3-R	GAGCACATGCCTCGAGGGCCCTGAGGATGTATGATT
<i>placzi-brlA-F</i>	AATTCACCTGACCTGACAAGTTGACAAGTAGAAAAAAAAAAGGAAA AAAAAAAAAAGAAAAGGAACC
<i>placzi-brlA-R</i>	TCGAGGTTCTTTTTCTTTTTTTTTTTTCTTTTTTTTTTCTACTTGTCAA CTTGTCAGGTCAGGTG
<i>placzi-cmr1-F</i>	AATCCGCGTCGGAATTACGATATTACCCTAGAGACAATTTTTATTA TAGCTGCC
<i>placzi-cmr1-R</i>	TCGAGGCAGCTATAATAAAAATTGTCTCTAGGGGTAATATCGTAATT CCGACGCGG
(A4GA3) ₃ -F	AATTCAAAAGAAAAAAAAAGAAAAAAAAAGAAAC
(A4GA3) ₃ -R	TCGAGTTTCTTTTTTCTTTTTTTCTTTTG
(A4G2A2) ₃ -F	AATTCAAAAGGAAAAAAAAAGGAAAAAAAAAGGAAC
(A4G2A2) ₃ -R	TCGAGTTCCTTTTTTCTTTTTTCTTTTG
For EMSA assays	
BrlA-6P-F	CTGGGATCCCCGGAATTCATGCAGTTTGAGTCGTCGAG
BrlA-6P-R	ACGATGCGGCCGCTCGAGTCAGTAATCTTCGTGCTTCT
Cmr1-6P-F	CTGGGATCCCCGGAATTCATGGAAACAACGGTCAAGGC
Cmr1-6P-R	ACGATGCGGCCGCTCGAGCCTTCGTGAGTAATCATCCA
<i>brlA</i> -EMSA-F1	GGAAAAAAAAAAAAAGAAAAGGAACCCACAACCTCAAGTCT
<i>brlA</i> -EMSA-R1	AGACTTGAGTTGTGGTTCCTTTTCTTTTTTTTTTTTCC
<i>cmr1</i> -EMSA-F1	CGGAATTACGATATTACCCTAGAGACAATTTTTATTATA
<i>cmr1</i> -EMSA-F1	TATAATAAAAATTGTCTCTAGGGGTAATATCGTAATTCCG