Name	Sequence	
mdfa-F	5'-tagaaataattttgtttaactttaagaaggagatatacccatgcaaaataaat	
mdfa-R	5'-ggccccaaggggttatgctagttattgctcagcggtgcccttacccttcgtgagaatttc-3'	
mdfa-18sac-1	F 5'-ccaagcttgcatgcctgcaggtcgactctagaggatcccccgcaaagatgtttttaatggc-3'	
mdfa-18sac-1	R 5'-gattattattggcgaagaaattgcaaaaaatgcctgattgctttgtgcg-3'	
mdfa-18sac-2	F 5'-cgcacaaagcaatcaggcatttttttgcaatttcttcgccaataataatc-3'	
mdfa-18sac-2	R 5'-aacagctatgaccatgattacgaattcgagctcggtacccttatcgctgcgttttaattc-3'	
mdfa-rhab-1F	5'-gctcaaattggaatcaggtttgtgccaataccagtagcccgcaaagatgtttttaatggc-3'	
mdfa-check-F	5'-cctgatcgcacaaagcaatcaggca-3'	
mdfa-check-F	R 5'-ttaaactctgcgcgattattattgg-3'	

## Supplemental Table 1. Primers used in this work.



Ec∆*mdf*A(tac-*mdf*A)

Figure S1. Low levels of BBR had no effect on cell growth of the reporter strain. Cell growth curve was obtained from a plate reader. All the experiments were conducted with at least three biological replicates. Data were presented at mean values ± standard error.



Figure S2. Low levels of BBR had no effect on cell growth of the wild type and the mdfA mutation strains. Cell growth curve was obtained from a plate reader. All the experiments were conducted with at least three biological replicates. Data were presented at mean values ± standard error.



Figure S3. Visualization the interactions of MdfA<sup>inward</sup> and MdfA<sup>outward</sup> with BBR molecules in the simulation. Molecules colored yellow represent BBR.