Title: The Presence of Two Cyclase Thioesterases Expands the Conformational Freedom of the Cyclic Peptide Occidiofungin

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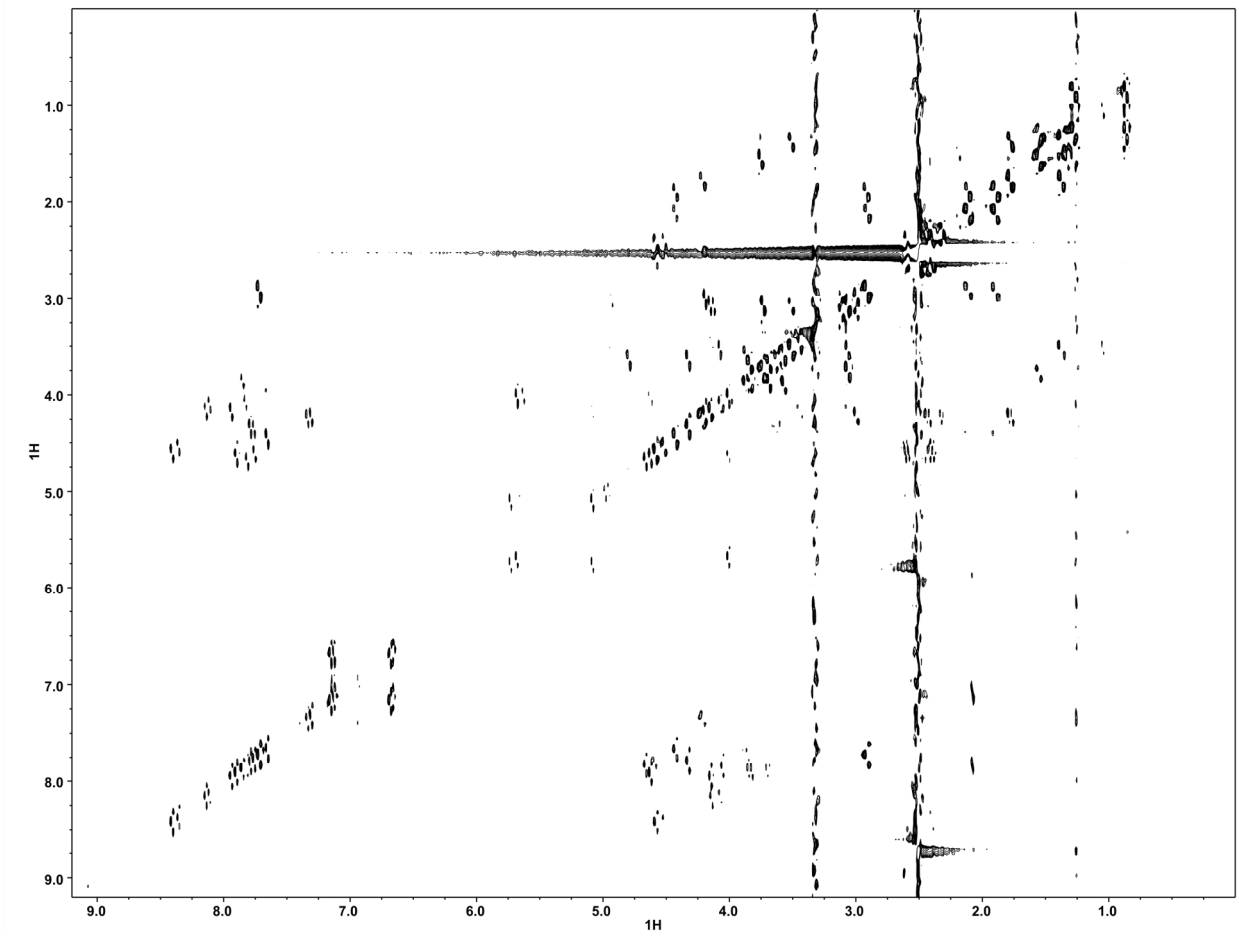
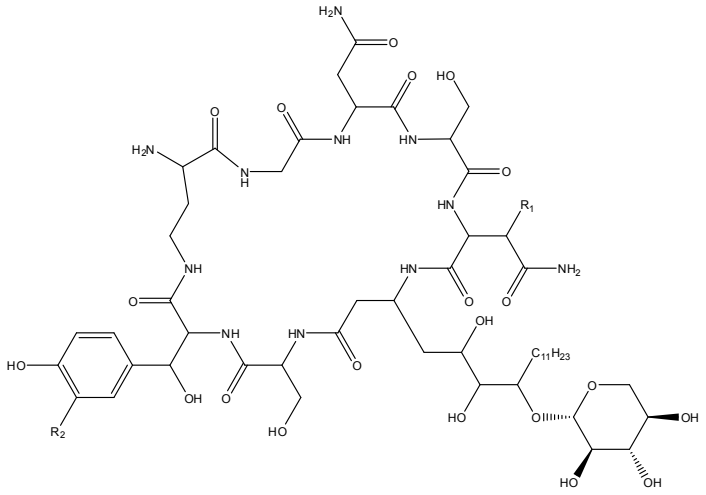
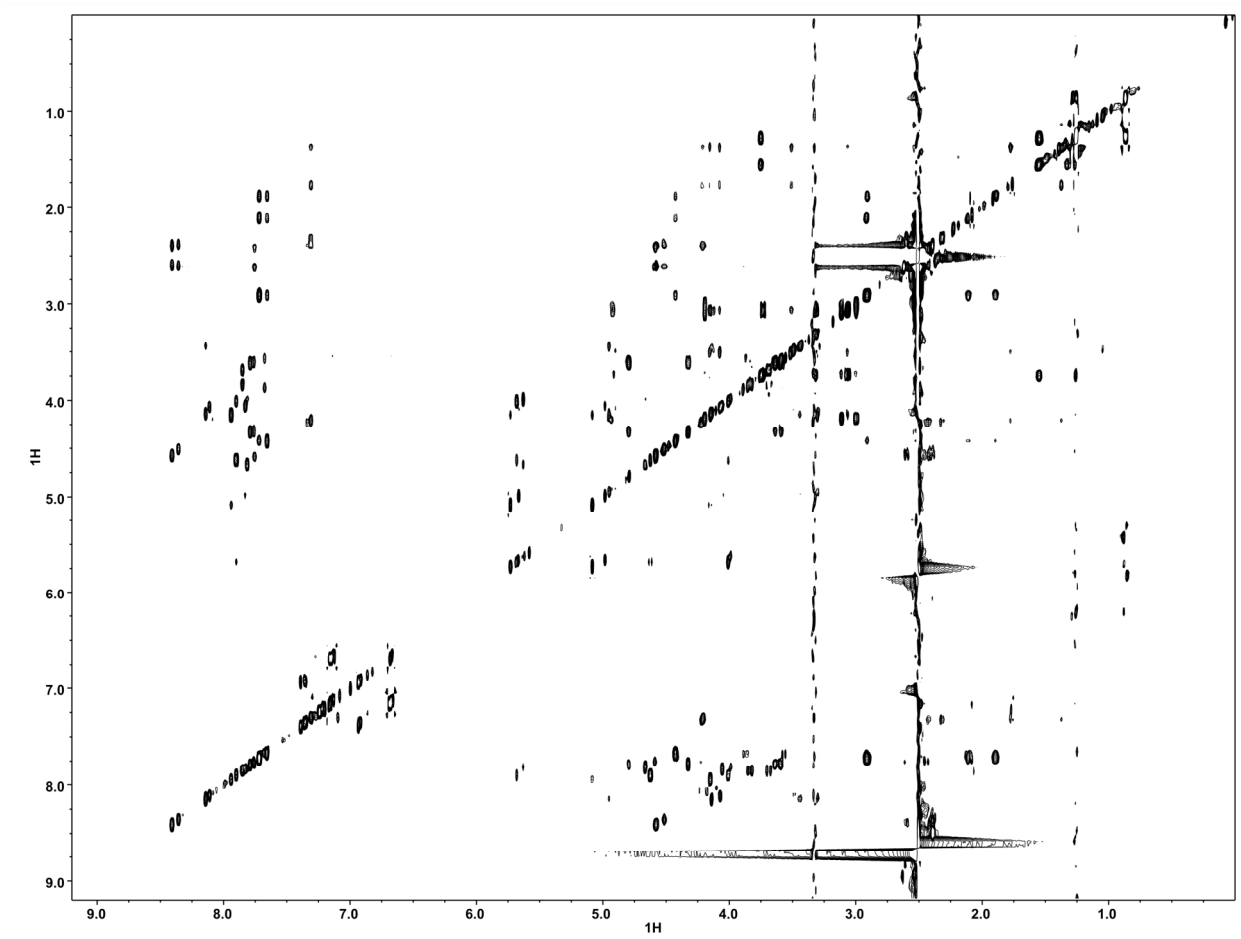
Fig. S1: COSY60 NMR Spectrum of Occidiofungin from *ocfN* mutant MS14GG88 recorded at 600 MHz in DMSO-*d*6

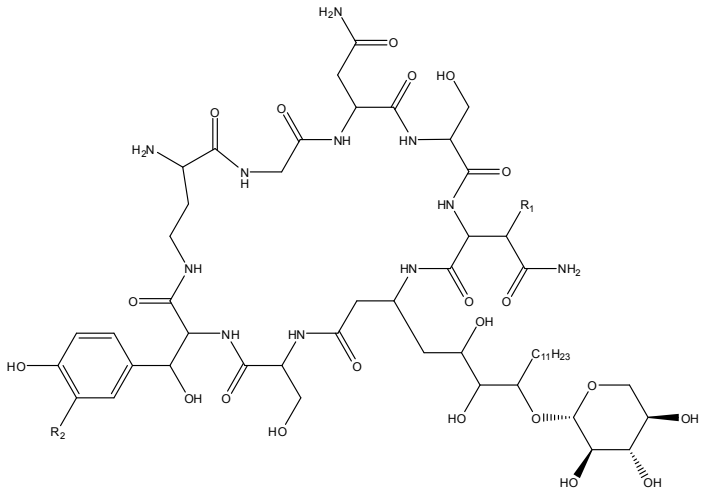




Occidiofungin: R1 (-H or -OH); R2 (-H or -Cl)

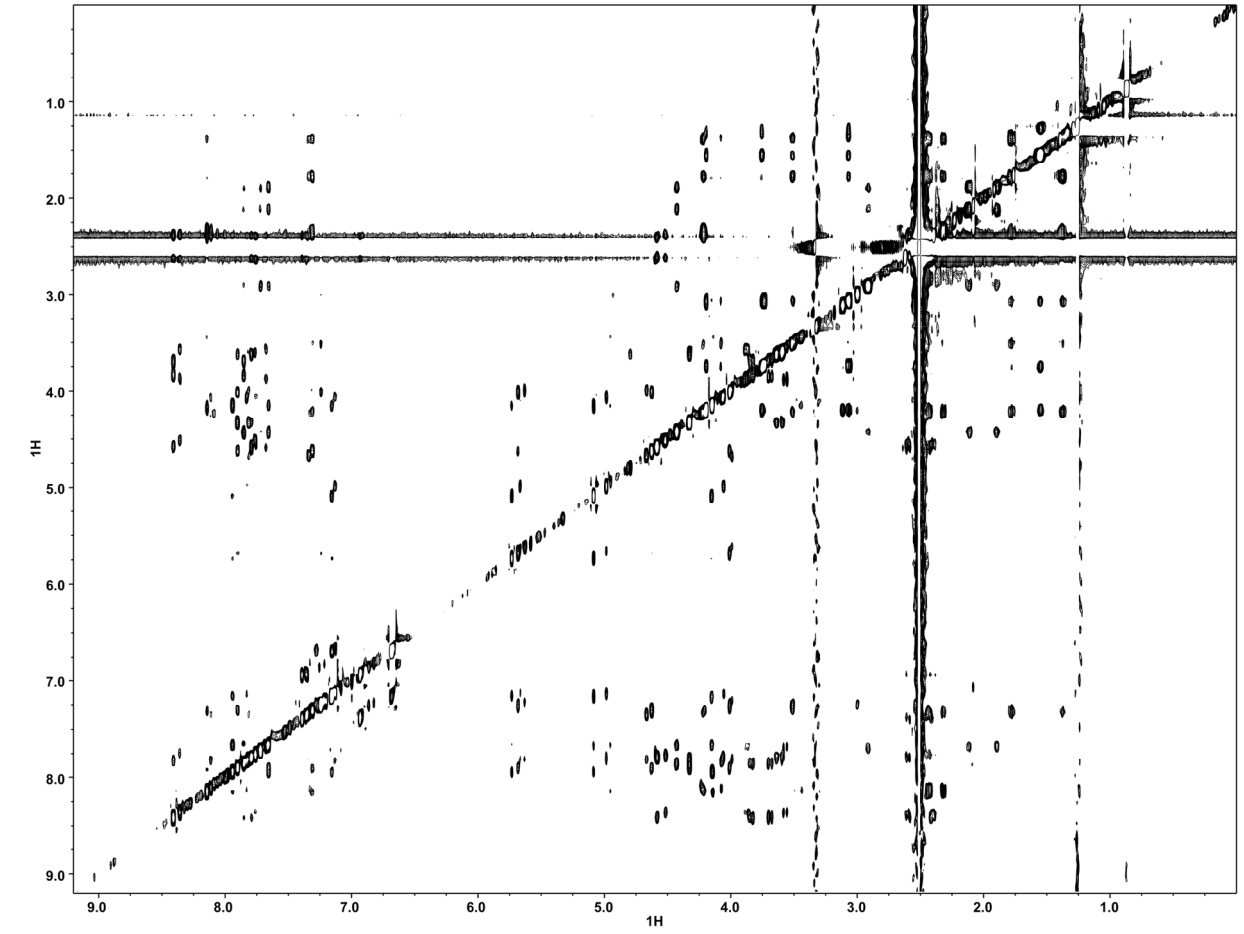
Fig. S2: TOCSY60 NMR Spectrum of Occidiofungin from *ocfN* mutant MS14GG88 recorded at 600 MHz in DMSO-*d*6

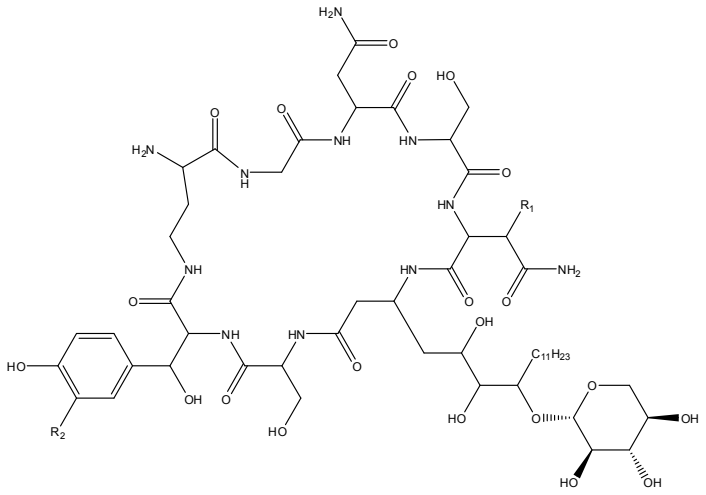




Occidiofungin: (R1,-H or -OH); (R2,-H or -Cl)

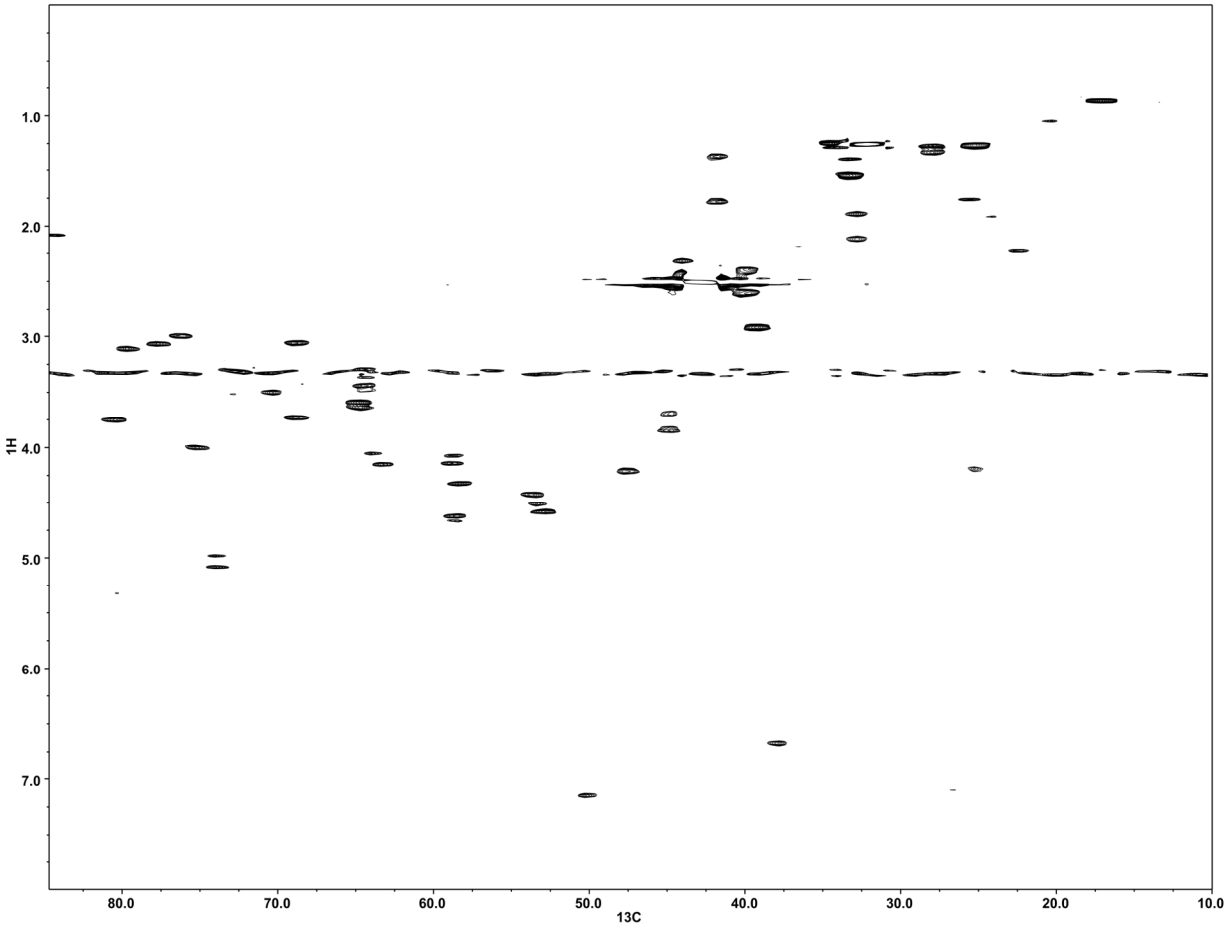
Fig. S3: NOESY400 NMR Spectrum of Occidiofungin from *ocfN* mutant MS14GG88 recorded at 600 MHz in DMSO-*d*6

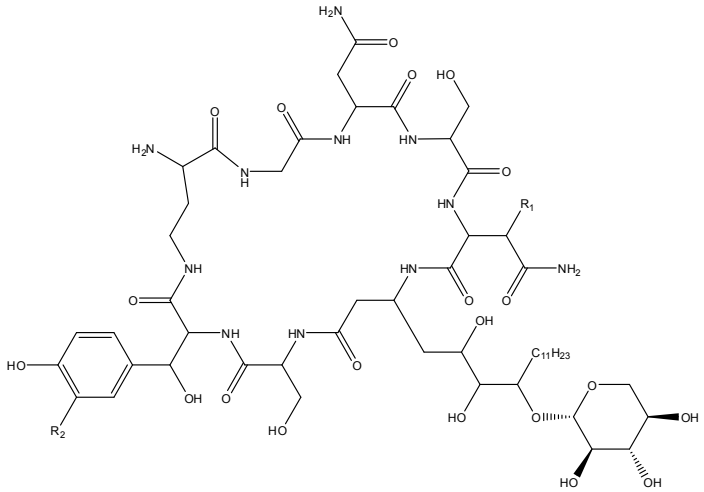




Occidiofungin: (R1,-H or -OH); (R2,-H or -Cl)

Fig. S4: ^{13}C-HSQC NMR Spectrum of Occidiofungin from *ocfN* mutant MS14GG88 recorded at 600 MHz in DMSO-*d*6





Occidiofungin: (R1,-H or -OH); (R2,-H or -Cl)

Fig. S5: One-dimensional NMR temperature titration curves for occidiofungin derived from ocfN mutant MS14GG88 and wild-type strain MS14.

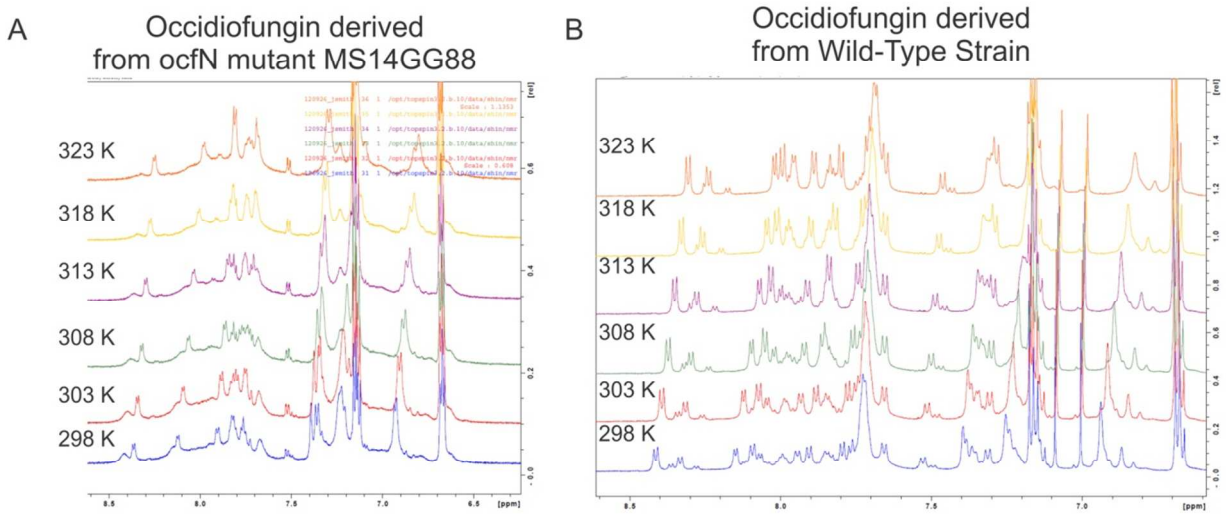


Fig. S6: TOCSY fingerprint region (NH correlations) for occidiofungin derived from ocfN mutant MS14GG88 and wild-type strain MS14 at 50ºC.

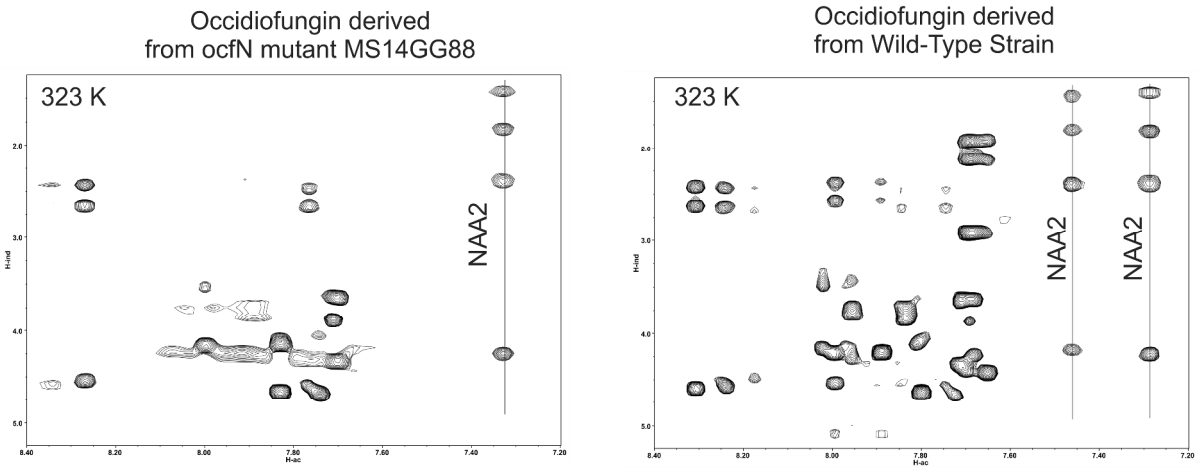


Fig. S7: Time-kill experiments performed against *Candida glabrata* ATCC66032. Solid black lines and dashed grey lines correspond to samples treated with occidiofungin derived from wild-type strain MS14 and ocfN mutant MS14GG88, respectively. Circles, squares, and triangles represent samples treated with 0.5, 1.0, and 2.0 µg/mL of occidiofungin, respectively. The diamond represent the sample treated with the blank control.