

Supplementary Material

for

Improved production of antifungal angucycline Sch47554 by manipulating three regulatory genes in *Streptomyces* sp. SCC-2136

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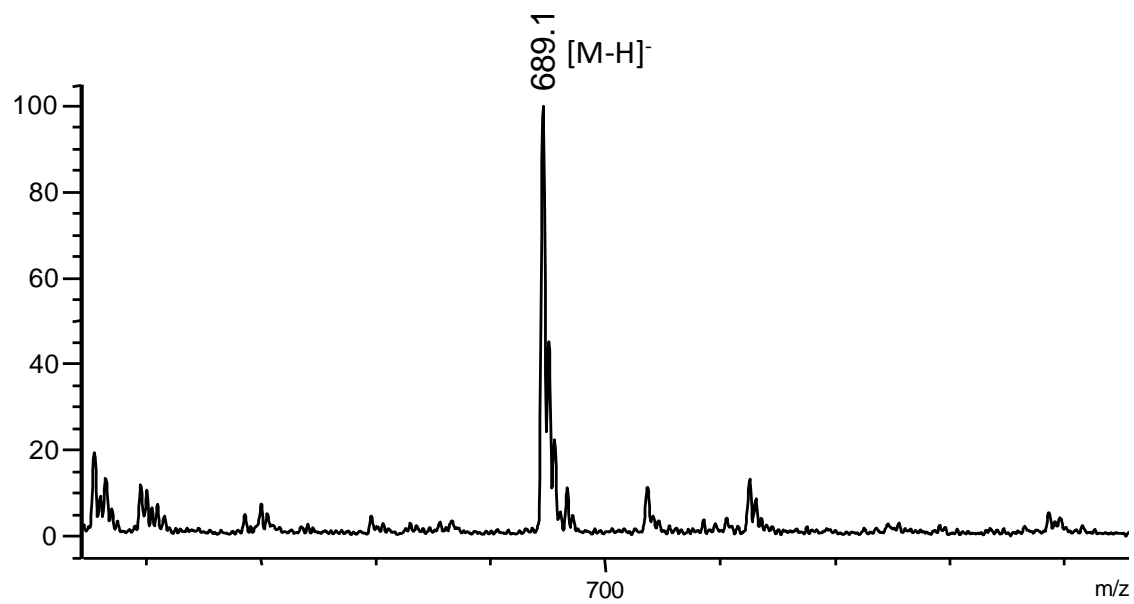


Figure S1. ESI-MS(-) spectrum of Sch47544 (**1**).

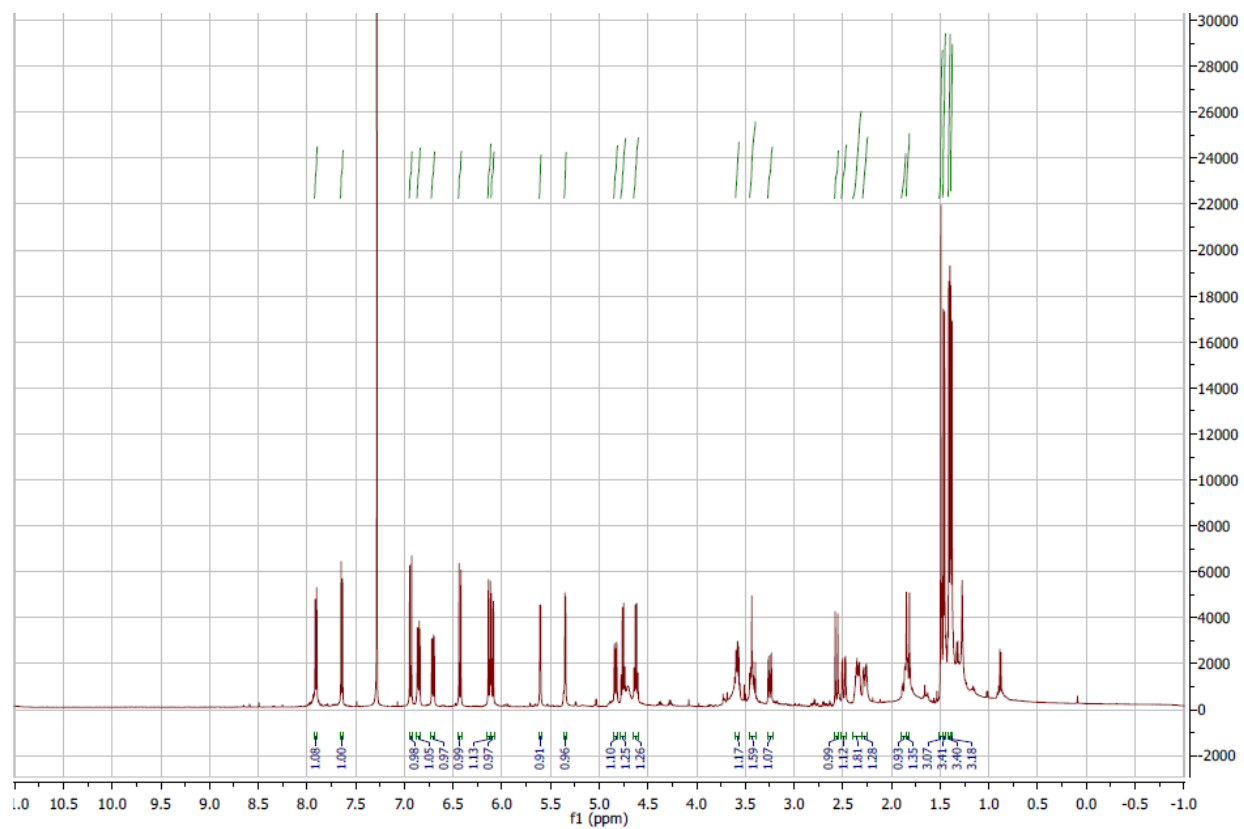


Figure S2. ^1H NMR for Sch47554 (1) in CDCl_3 (500 MHz, Bruker AvanceIII HD Ascend-500).

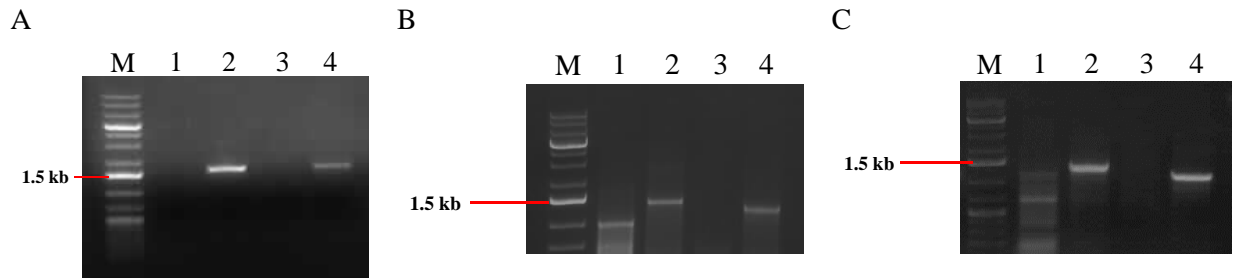


Figure S3. PCR verification of gene disruption for *schA4* (A), *schA16* (B) and *schA21* (C). M: DNA ladder. 1: Genomic DNA of wild type *Streptomyces* sp. SCC-2136 as template with forward check primer and M13-47 universal primer. 2: Genomic DNA of mutant strain as template with forward check primer and M13-47 universal primer. 3: Genomic DNA of wild type *Streptomyces* sp. SCC-2136 as template with RV-M universal primer and reverse check primer. 4: Genomic DNA of mutant strain as template with RV-M universal primer and reverse check primer.