

Community Structures and Antifungal Activity of Root-Associated Endophytic Actinobacteria in Healthy and Diseased Cucumber Plants and *Streptomyces* sp. HAAG3-15 as a Promising Biocontrol Agent

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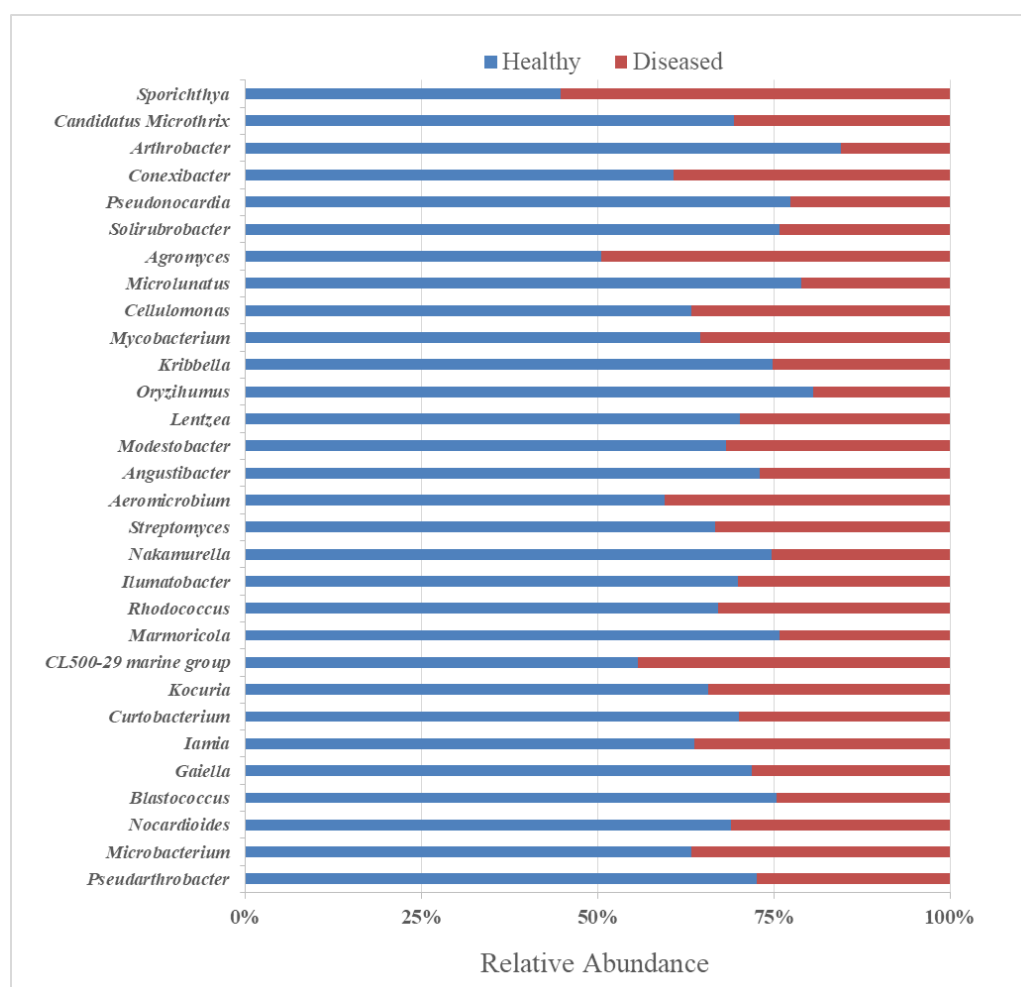


Figure S1. Analysis of culture-independent endophytic actinobacteria communities at genus level top 30 in the cucumber roots.



Figure S2. Strain HAAG3-15 showed antagonism to *F. oxysporum* f. sp. *cucumerinum*.

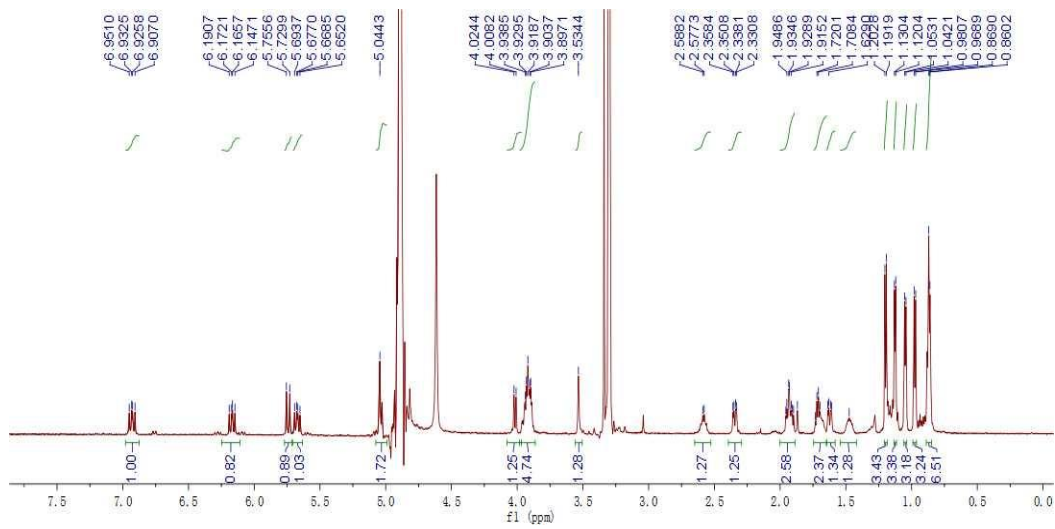


Figure S3. ¹H NMR (600 MHz) spectrum of compound 1 in MeOD.

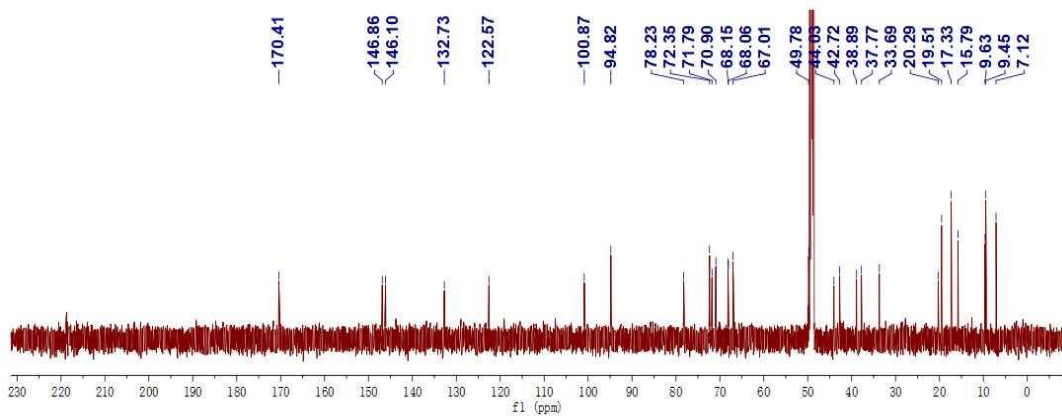


Figure S4. ¹³C NMR (150 MHz) spectrum of compound 1 in MeOD.

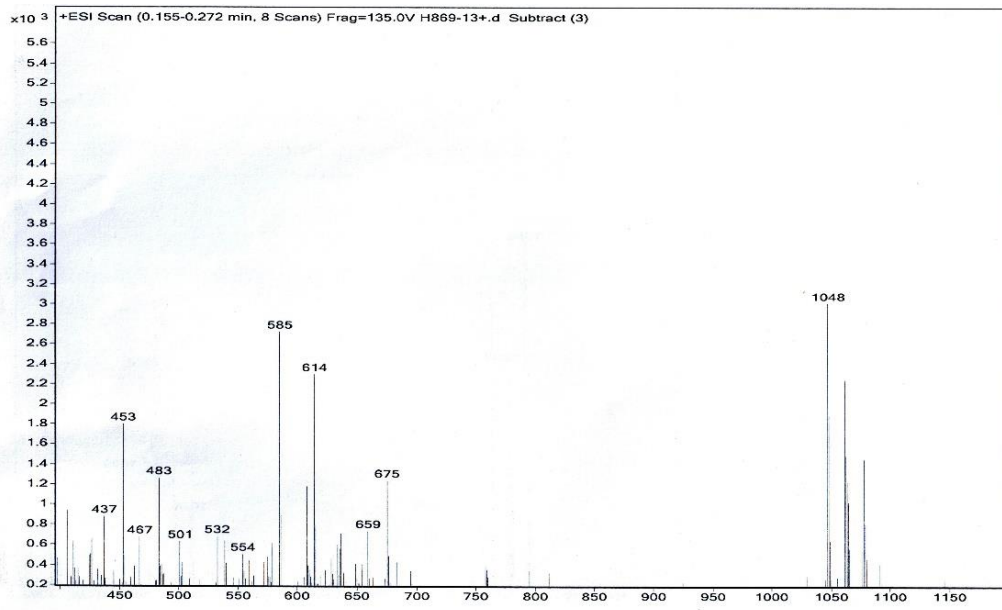


Figure S5. ESI-MS spectrum of compound 1.