

Supporting Information

Citrinin Is a Potential Quorum Sensing Inhibitor Against *Pseudomonas aeruginosa*

Hongrui Ji^{1,2,3,4,†}, Lu Zhao^{1,2,3,4,†}, Kaiwen Lv^{1,2,3,4}, Yuzhu Zhang^{1,2,3,4}, Haibo Gao^{1,2,3,4}, Qianhong Gong^{1,2,3,4,*} and Wengong Yu^{1,2,3,4,*}

- 1 School of Medicine and Pharmacy, Ocean University of China, 5 Yushan Road, Qingdao 266003, China; jhr@stu.ouc.edu.cn (H.J.)
 - 2 Laboratory for Marine Drugs and Bioproducts, Qingdao National Laboratory for Marine Science and Technology, 1 Wenhai Road, Qingdao 266237, China
 - 3 Key Laboratory of Marine Drugs, Chinese Ministry of Education, School of Medicine and Pharmacy, Ocean University of China, 5 Yushan Road, Qingdao 266003, China
 - 4 Provincial Key Laboratory of Glycoscience and Glycotechnology, Ocean University of China, 5 Yushan Road, Qingdao 266003, China
- * Correspondence: gongqhe@ouc.edu.cn (Q.G.); yuwg66@ouc.edu.cn (W.Y.);
Tel.: +86-532-82032067 (Q.G.); +86-532-82031680 (W.Y.)
- † These authors contributed equally to this work.

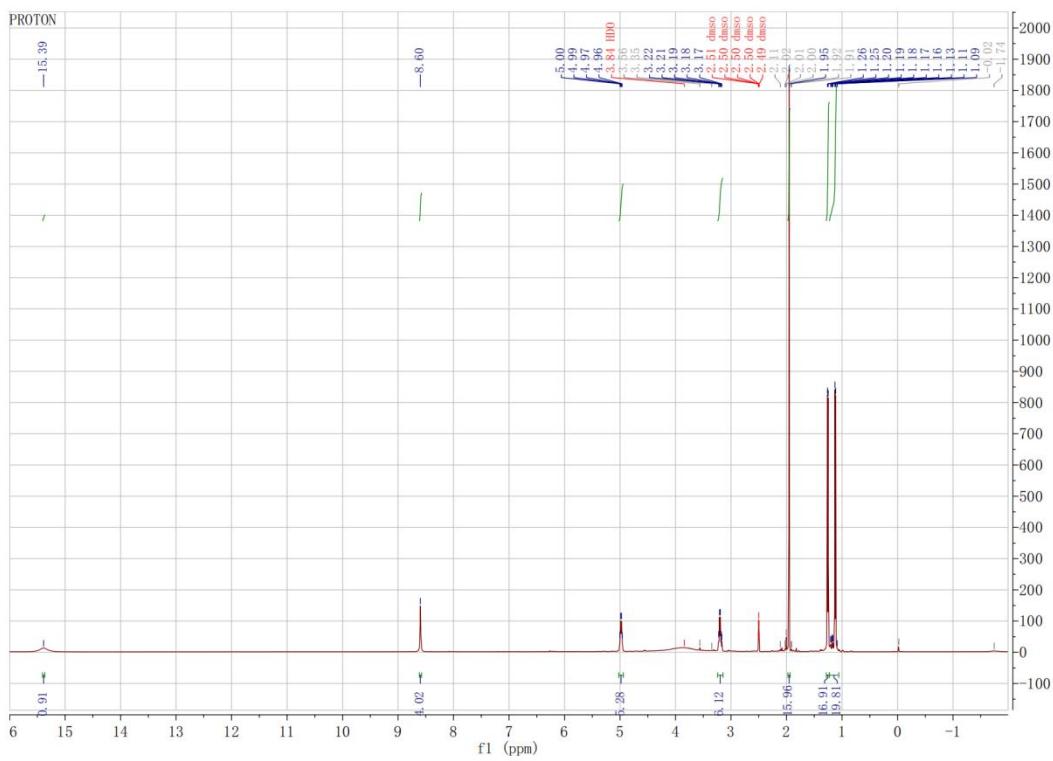


Figure S1. ^1H -NMR spectroscopy of the anti-QS compound (Solvent: DMSO-d₆). ^1H NMR (500MHz, DMSO-d₆) δ 15.39 (s, 1H), 8.60(s, 1H), 4.98(q, J =6.7Hz, 1H), 3.20(q, J =7.2Hz, 1H), 1.95(s, 4H), 1.26(d, J =6.7Hz, 4H), 1.12(d, J =7.2Hz, 1H).

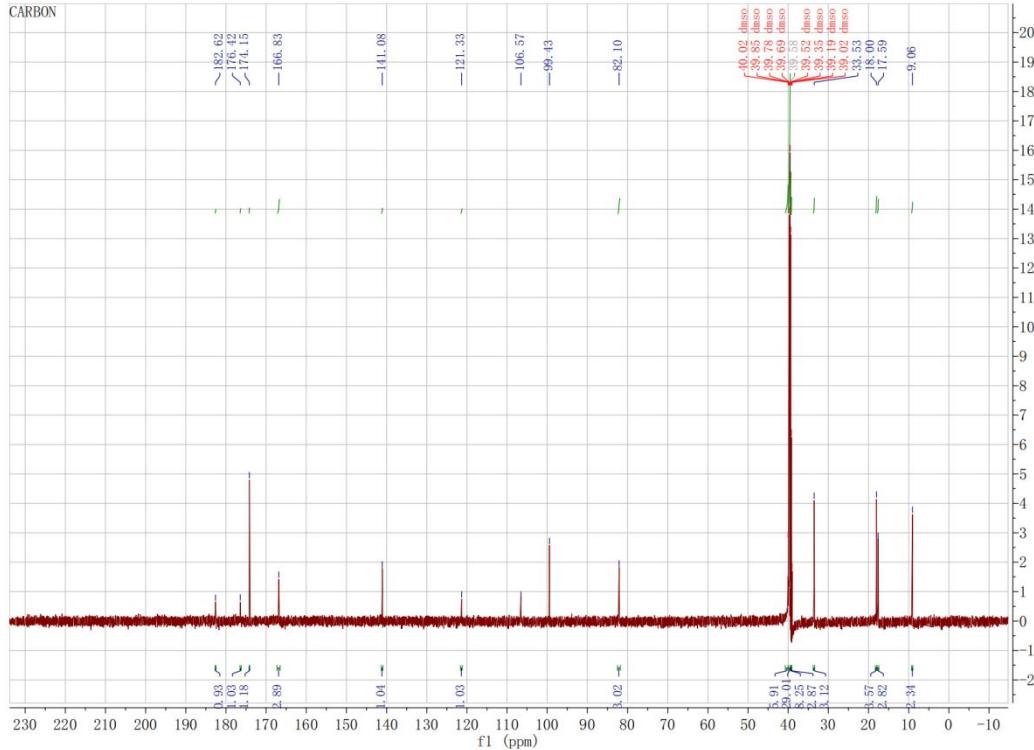


Figure S2. ^{13}C -NMR spectroscopy of the anti-QS compound (Solvent: DMSO-d₆). ^{13}C NMR (126 MHz, DMSO) δ 182.62, 176.42, 174.16, 166.83, 141.08, 121.33, 106.57, 99.43, 82.10, 33.53, 18.00, 17.59, 9.06.

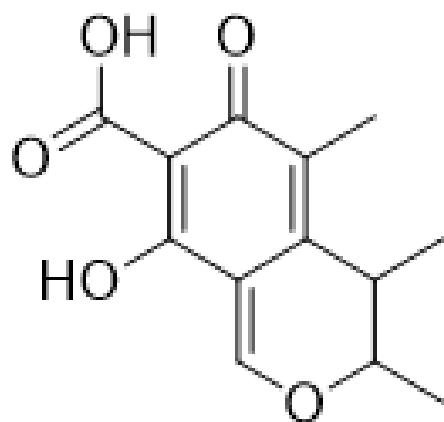


Figure S3. Chemical structure of citrinin.

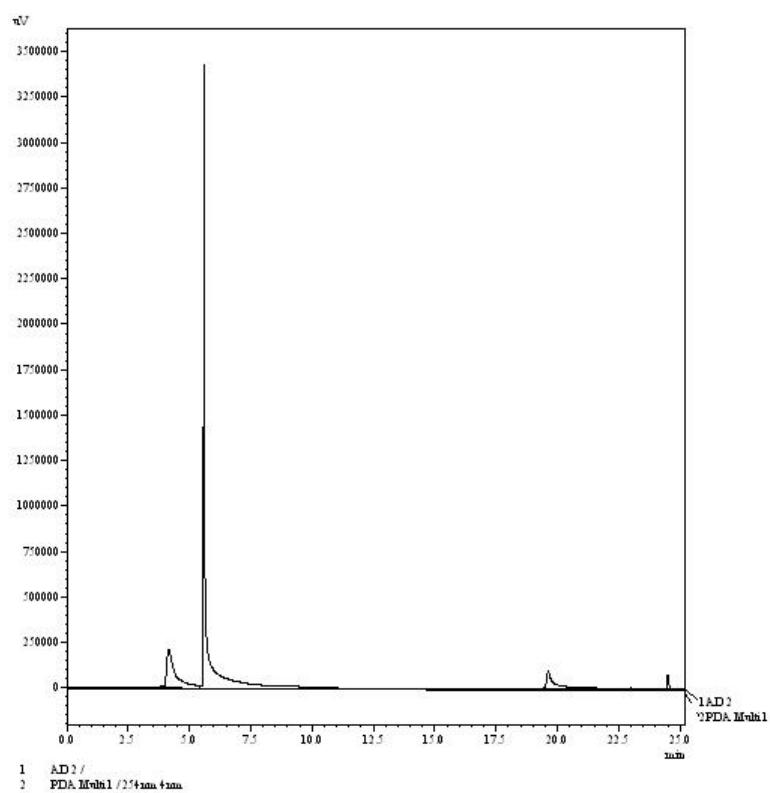


Figure S4. HPLC analysis of citrinin.

Table S1. Bacterial strains and plasmids.

Strain or plasmid	Relevant genotype	Source
Strains		
<i>P. aeruginosa</i> PAO1	Wild type	Schuster and Greenberg. (2007)
<i>Chromobacterium violaceum</i> CV026	$\Delta cvil$, mini Tn5 mutant of CV31532	McLean. (2004)
<i>Chromobacterium violaceum</i> CV12472	Wild type	McLean. (2004)
<i>E. coli</i> MG4/pKDT17	<i>E. coli</i> DH5a harboring plasmid MG4/pKDT17	Hong et al. (2012)
<i>E. coli</i> pEAL08-2	<i>E. coli</i> DH5a harboring plasmid pEAL08-2	Cugini et al. (2007)
<i>E. coli</i> pDSY	<i>E. coli</i> DH5a harboring plasmid pDSY	Zhao et al. (2021)
Plasmids		
MG4/pKDT17	<i>PlasB-lacZ</i> , and <i>Plac-lasR</i> transcriptional fusion	Pearson et al. (1994)
pEAL08-2	<i>PpqsA-lacZ</i> , and <i>Plac-pqsR</i> transcriptional fusion	Cugini et al. (2007)
pDSY	<i>PrhlA-lacZ</i> , and <i>Plac-rhlR</i> transcriptional fusion	Zhao et al. (2021)

Table S2. The primer sequences for real-time RT-PCR.

primers	sequences (5' to 3')	primers	sequences (5' to 3')
<i>rpsl</i> (F)	GCAACTATCAACCAGCTGGTG	<i>rpsl</i> (R)	GCTGTGCTCTTGCAGGTTGTG
<i>lasR</i> (F)	CTGTGGATGCTCAAGGACTAC	<i>lasR</i> (R)	AACTGGTCTGCCGATGG
<i>lasI</i> (F)	GGCTGGGACGTTAGTGTCA	<i>lasI</i> (R)	AAAACCTGGGCTTCAGGAGT
<i>lasB</i> (F)	ACCAGAAGATCGGCAAGTAC	<i>lasB</i> (R)	GTTGACCTGCTGTAGGTGTTG
<i>rhlR</i> (F)	CTGGGCTTCGATTACTACGC	<i>rhlR</i> (R)	CCCGTAGTTCTGCATCTGGT
<i>rhlII</i> (F)	GTAGCGGGTTGCGGATG	<i>rhlII</i> (R)	CGGCATCAGGTCTTCATCG
<i>rhlA</i> (F)	GGCGATCGGCCATCT	<i>rhlA</i> (R)	AGCGAACCCATGTGCTGAT
<i>pqsR</i> (F)	CTGATCTGCCGGTAATTGG	<i>pqsR</i> (R)	ATCGACGAGGAACTGAAGA
<i>pqsA</i> (F)	GACCGGCTGTATTCGATTC	<i>pqsA</i> (R)	GCTGAACCAGGGAAAGAAC
<i>phzH</i> (F)	TGCGCGAGTTCAGCCACCTG	<i>phzH</i> (R)	TCCGGGACATAGTCGGCGCA