

Supplemental Material for;

Biosynthesis of Athmu, an α,γ -hydroxy- β -amino acid of pahayokolides A-B

Li Liu^a, Daniel W. Bearden^b, Juan C. Rodriguez^a, and Kathleen S. Rein^a *

^a*Department of Chemistry and Biochemistry, Florida International University, Miami, Florida 33199, United States*

^b*Analytical Chemistry Division, National Institute of Standards and Technology, Hollings Marine Laboratory, Charleston, South Carolina 29412, United States*

S1. ¹³C-NMR of pahayokolide B (2) 49-74 ppm

A. Natural abundance

B. [1-¹³C] α -KIC labeled

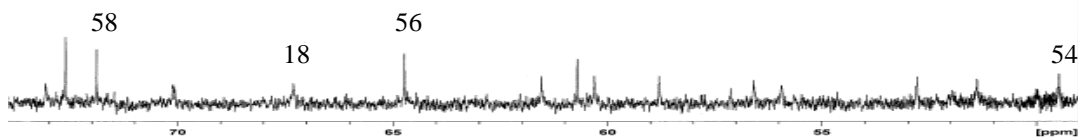
C. [1-¹³C] (+) α -HIC labeled

D. [1-¹³C] (-) α -HIC labeled

* Corresponding author. Tel.: +1-305-348-6682; fax: +1-305-348-3772; e-mail: reink@fiu.edu

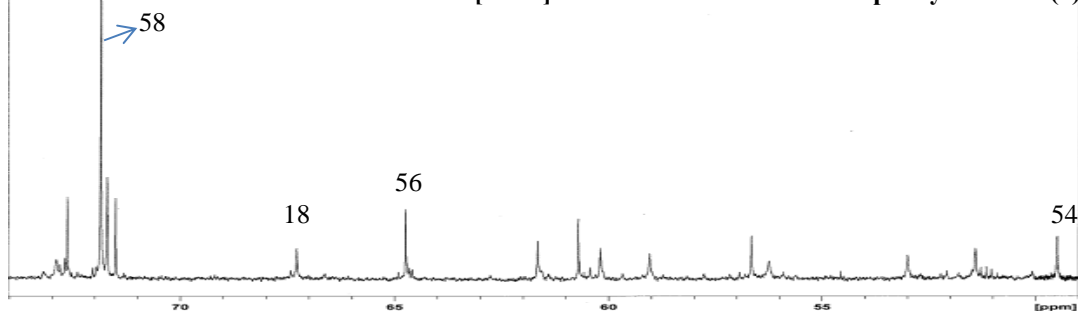
Pahayokolide B (unlabeled), MeOD, Kelly Hein
13C, inverse gated
T=298K
S2430
NS-7994

A. Natural abundance ^{13}C -NMR of pahayokolide B(2)



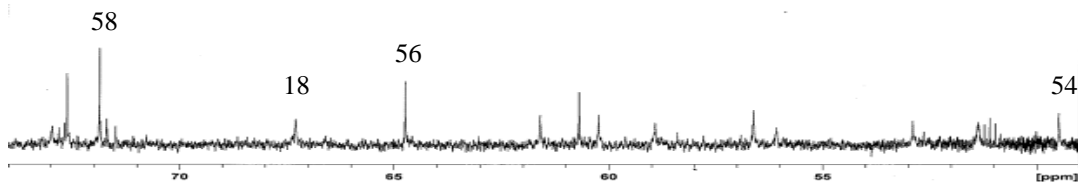
Pahayokolide B (Fed α -Keto), MeOD, Kelly Hein
13C, inverse gated
T=298K
S2430
NS-3526

B. $[1-^{13}\text{C}]$ α -KIC labeled ^{13}C -NMR of pahayokolide B(2)



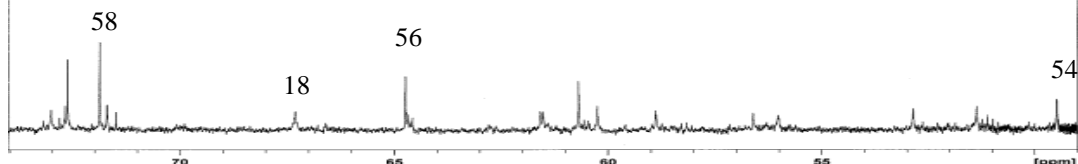
Pahayokolide B (Fed (+)- α -Hydroxy), MeOD, Kelly Hein
13C, inverse gated
T=298K
S2430
NS-3226

C. $[1-^{13}\text{C}]$ (+) α -HIC labeled ^{13}C -NMR of pahayokolide B(2)



Pahayokolide B (Fed (-)- α -Hydroxy), MeOD, Kelly Hein
13C, inverse gated
T=298K
S2430
NS-7830

D. $[1-^{13}\text{C}]$ (-) α -HIC labeled ^{13}C -NMR of pahayokolide B(2)



S1. Natural abundance (A), $[1-^{13}\text{C}]$ α -KIC (B), (+) α -HIC (C) and (-) α -HIC (D) labeled ^{13}C -NMR of pahayokolide B (2) 49-74 ppm