

Supporting Information

Synthesis and antimicrobial evaluation of γ -borono phosphonate compounds in *Escherichia coli* and *Mycobacterium smegmatis*

Giulia Mancini, Maria Bouda, James M. Gamrat and John W. Tomsho*

Department of Chemistry & Biochemistry, University of the Sciences in Philadelphia, 600 S.

43rd Street, Philadelphia, PA 19104, USA

Page Number	Item
S3	Figure S1. ¹ H-NMR spectra for compound 3
S4	Figure S2. ¹³ C-NMR spectra for compound 3
S5	Figure S3. ¹ H-NMR spectra for compound 5
S6	Figure S4. ¹³ C-NMR spectra for compound 5
S7	Figure S5. qNMR spectra for compound 5
S8	Figure S6. ¹ H-NMR spectra for compound 6
S9	Figure S7. ¹³ C-NMR spectra for compound 6
S10	Figure S8. qNMR spectra for compound 6
S11	Figure S9. ¹ H-NMR spectra for compound 4
S11	Figure S10. ¹³ C-NMR spectra for compound 4
S12	Figure S11. qNMR spectra for compound 4
S12	Figure S12. ³¹ P-NMR spectra for compound 4
S13	Figure S13. ¹¹ B-NMR spectra for compound 4
S13	Figure S14. COSY spectra for compound 4
S14	Figure S15. HSQC spectra for compound 4
S15	Figure S16. ¹ H-NMR spectra for compound 7
S16	Figure S17. ¹³ C-NMR spectra for compound 7
S17	Figure S18. qNMR spectra for compound 7
S18	Figure S19. IPP chemical rescue of <i>E. coli</i> for compound 6

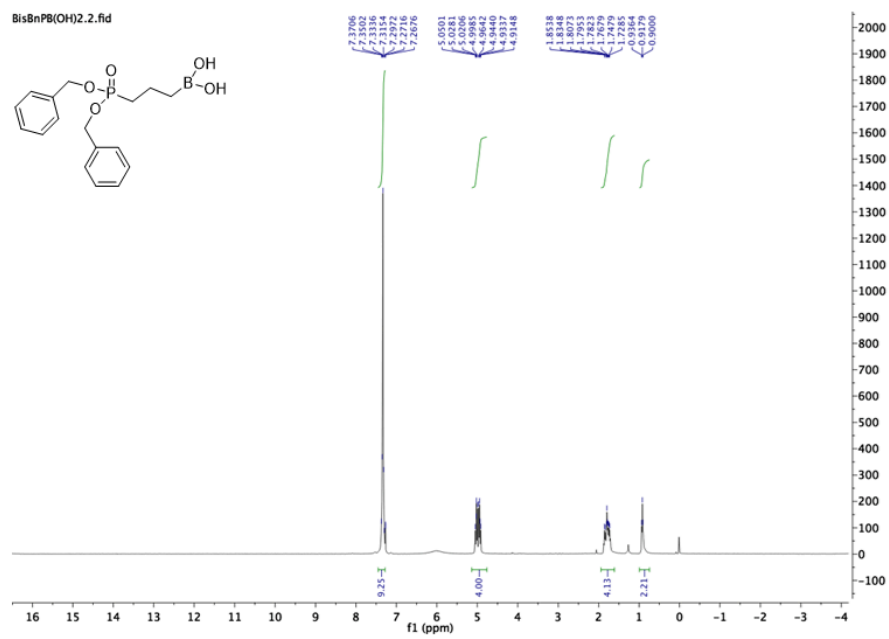


Figure S1. $^1\text{H-NMR}$ spectra for compound **3**

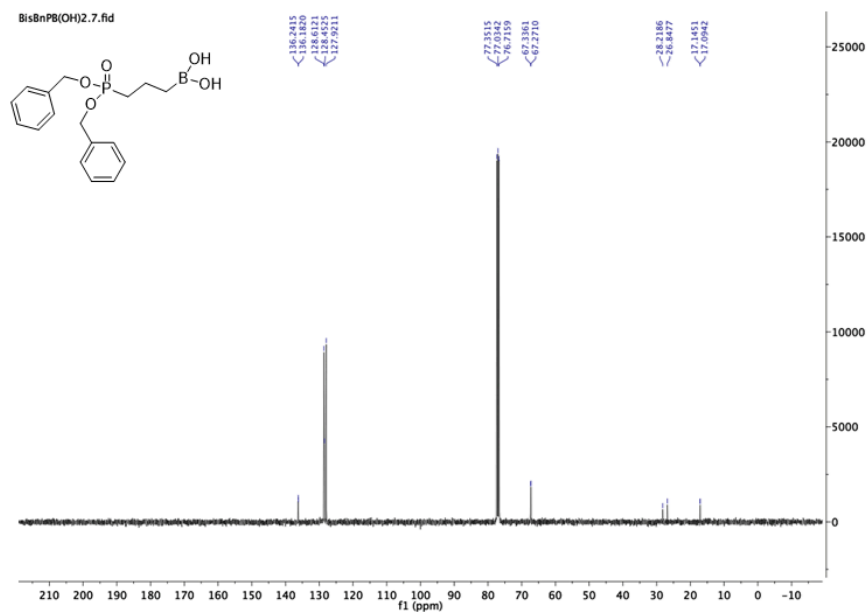


Figure S2. ^{13}C -NMR spectra for compound **3**

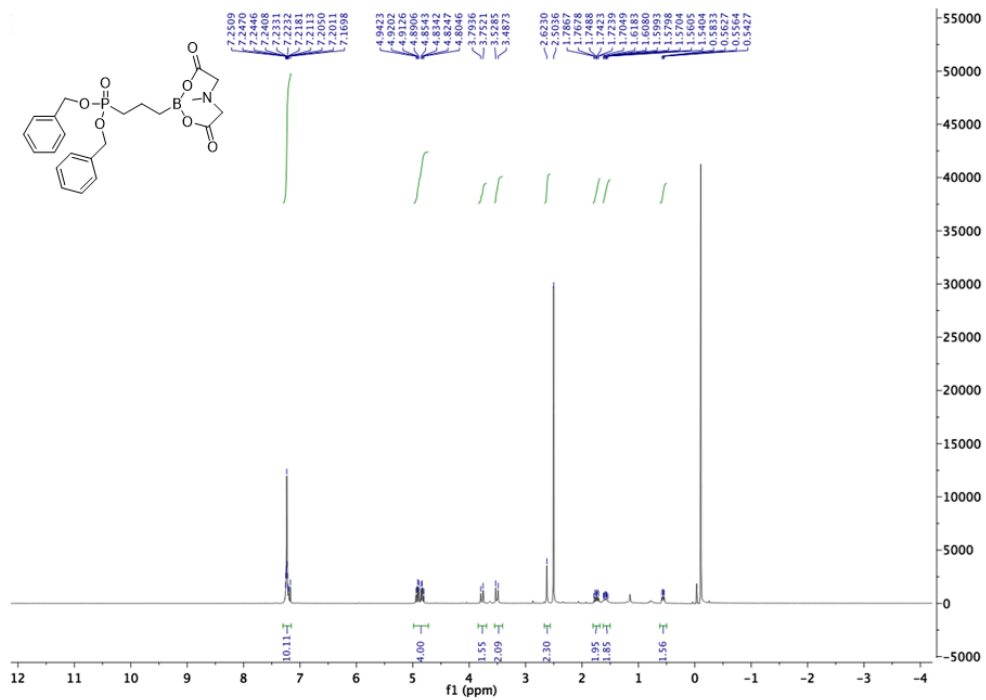


Figure S3. $^1\text{H-NMR}$ spectra for compound **5**

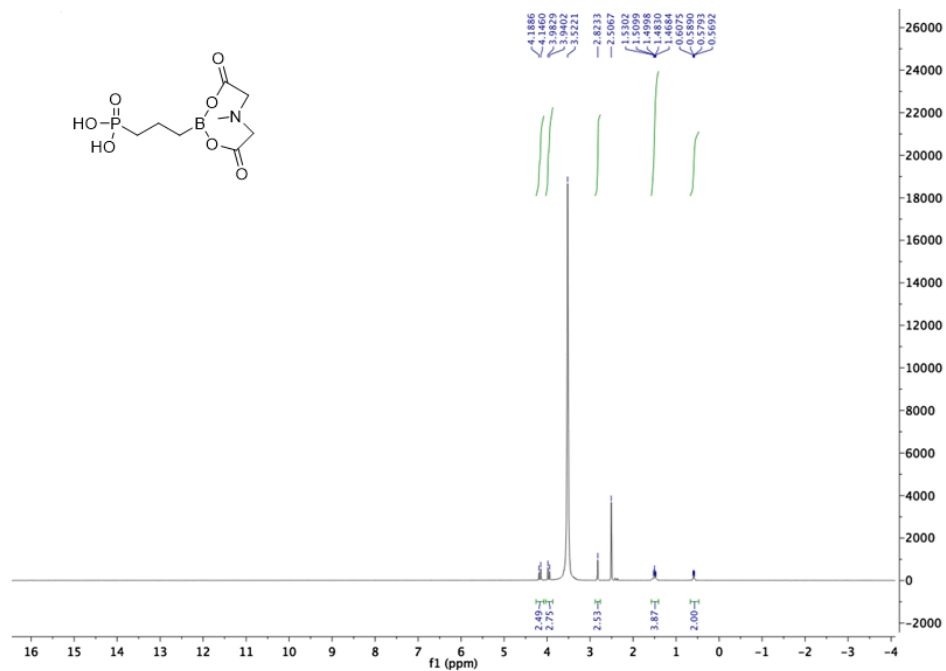


Figure S6. $^1\text{H-NMR}$ spectra for compound **6**

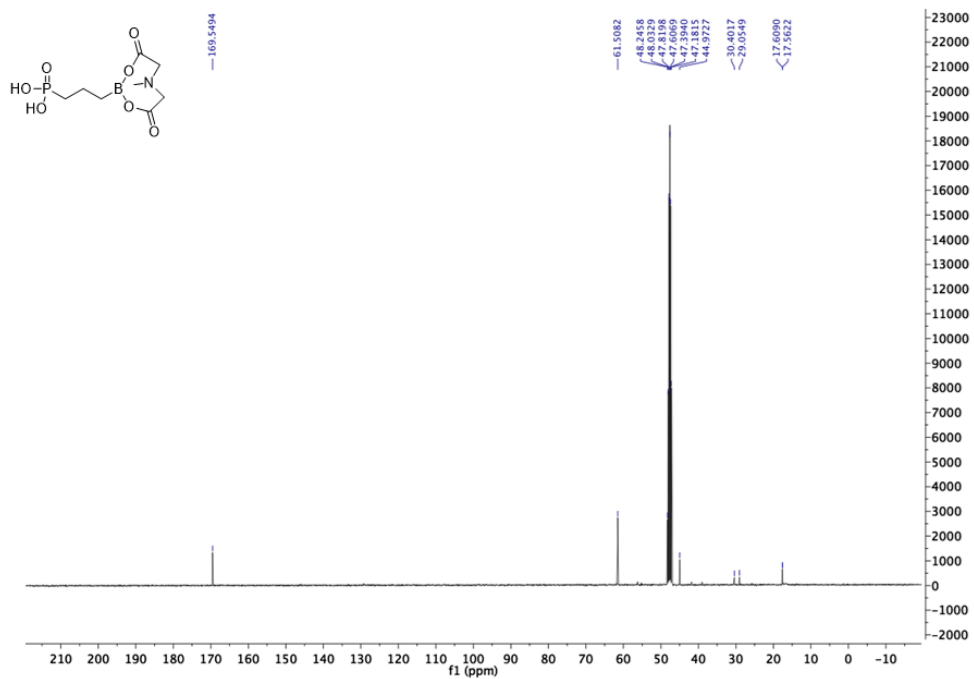


Figure S7. $^{13}\text{C-NMR}$ spectra for compound 6

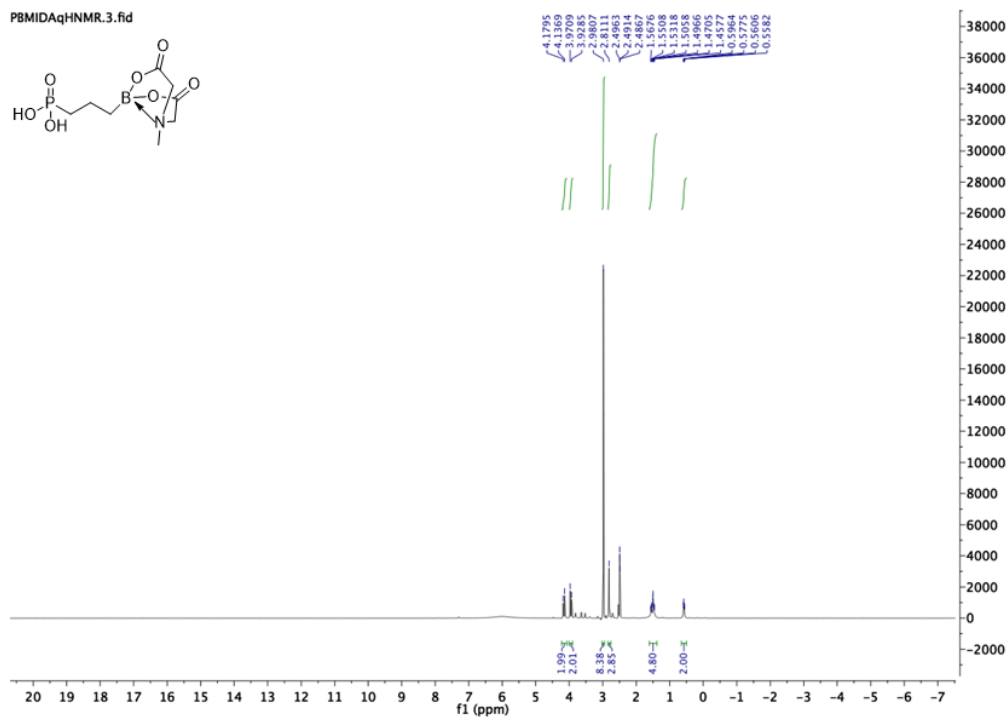


Figure S8. qNMR compound 6, internal standard DMSO₂. Purity 98%.

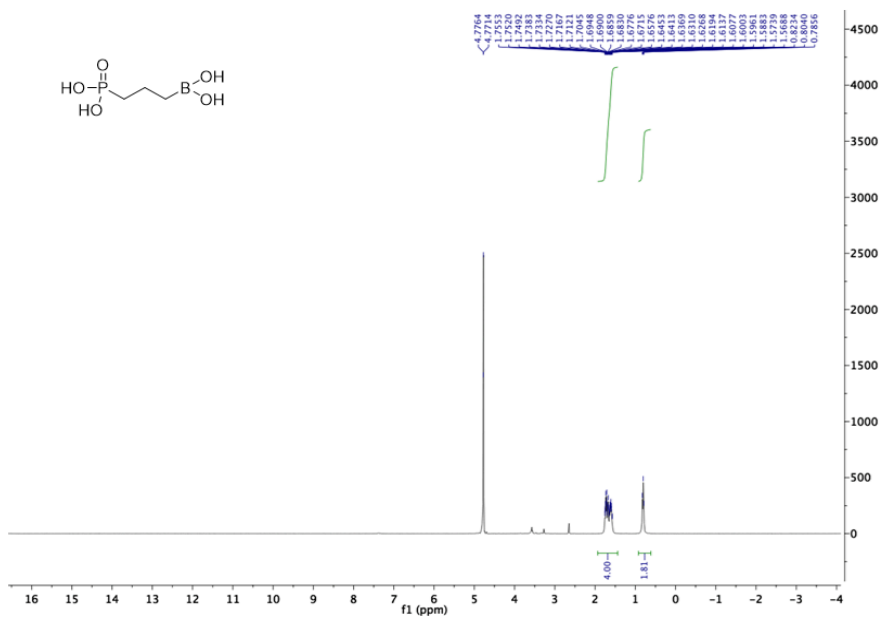


Figure S9. ¹H-NMR spectra for compound 4

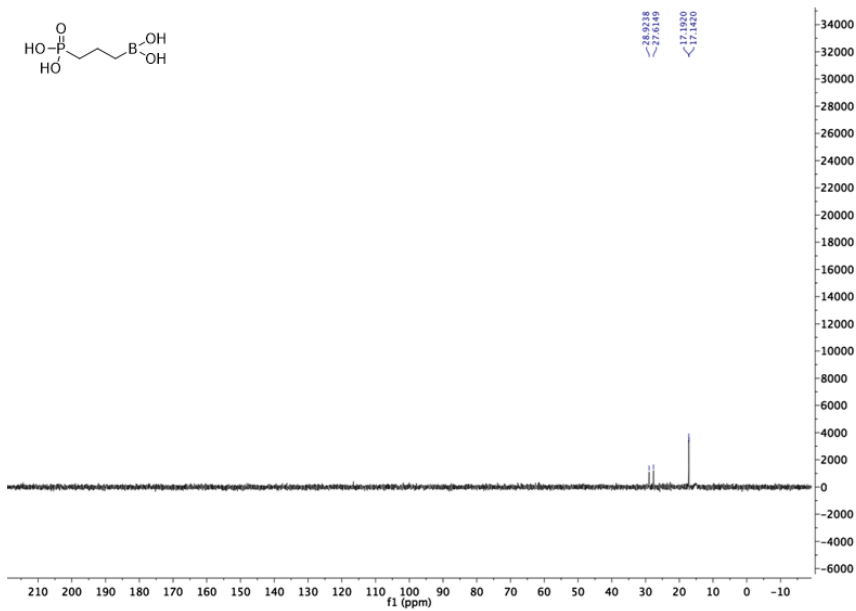


Figure S10. ¹³C-NMR spectra for compound 4

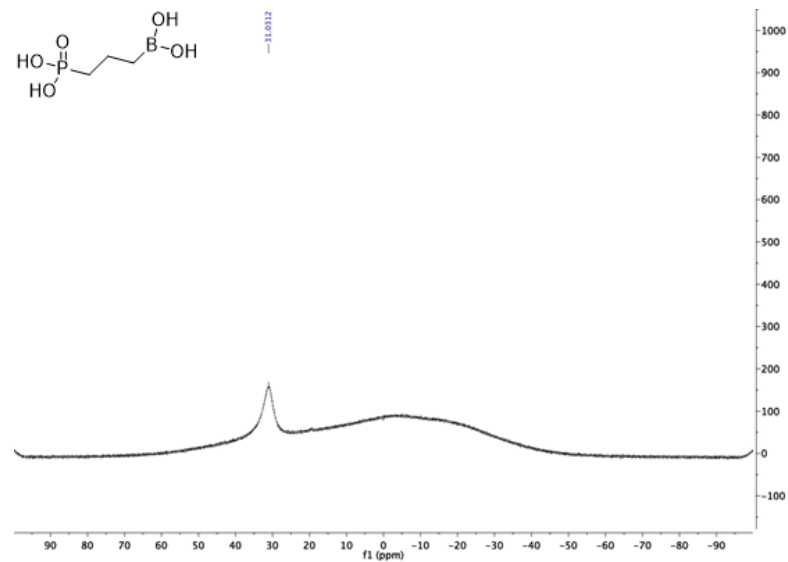


Figure S13. ^{11}B -NMR spectra for compound 4

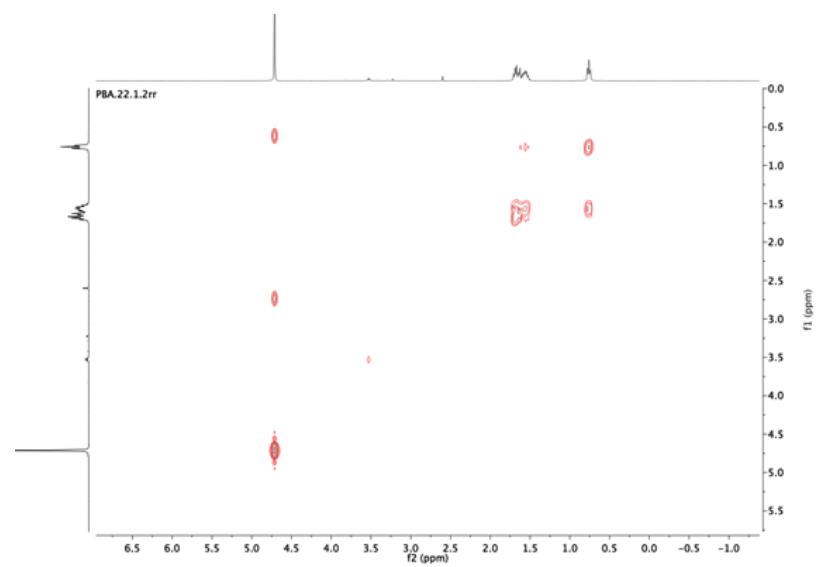


Figure S14. COSY NMR for compound 4

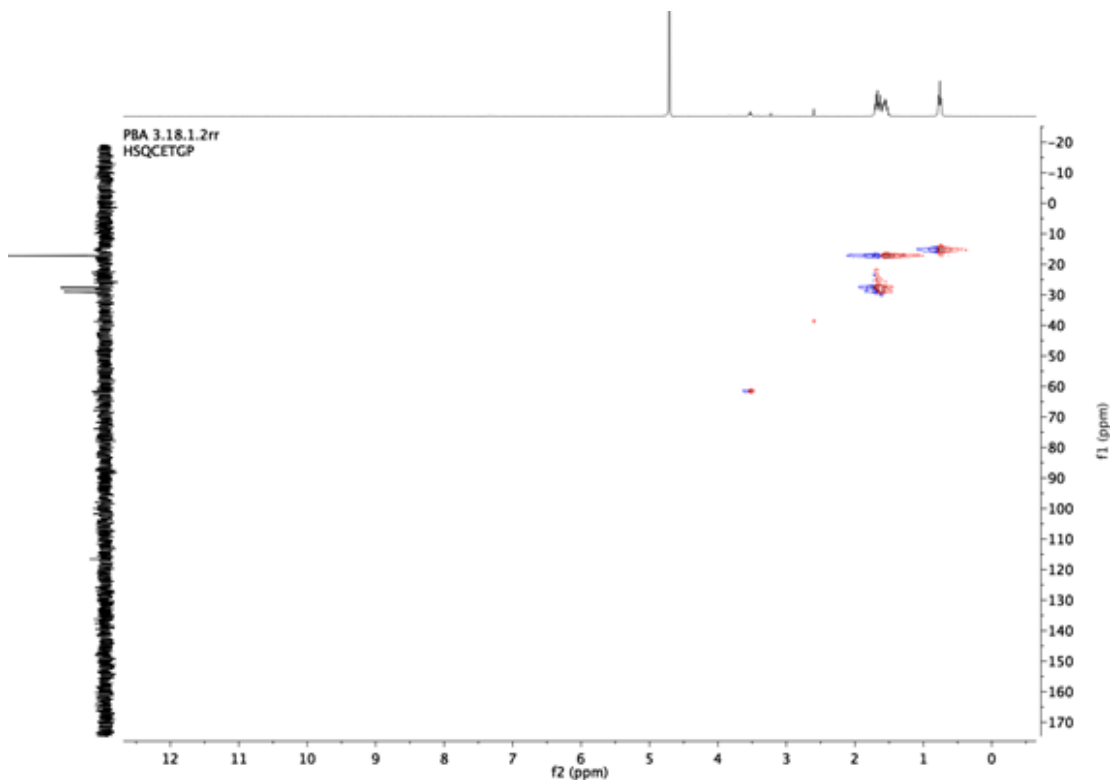


Figure S15. HSQC for compound 4

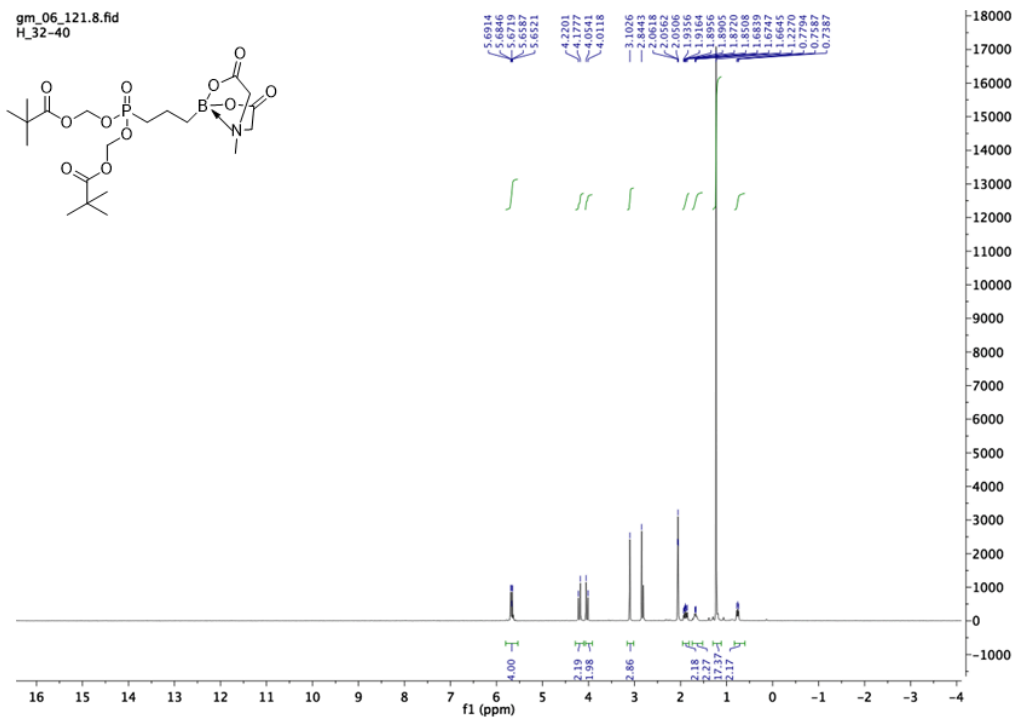


Figure S16. ¹H-NMR spectra for compound 7

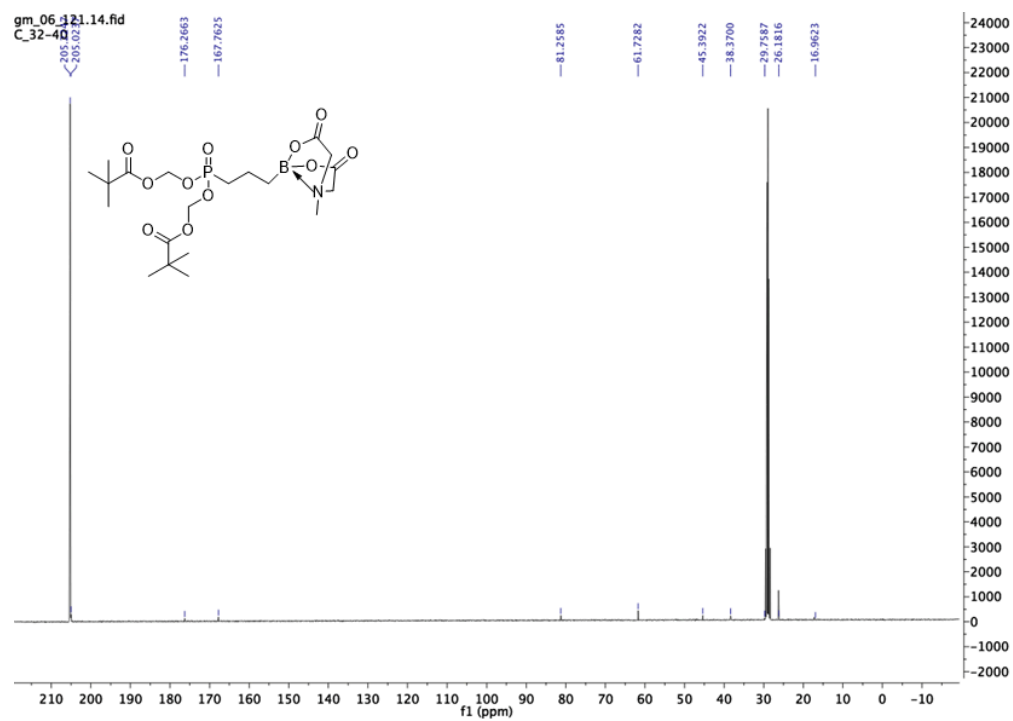


Figure S17. ^{13}C -NMR spectra for compound 7

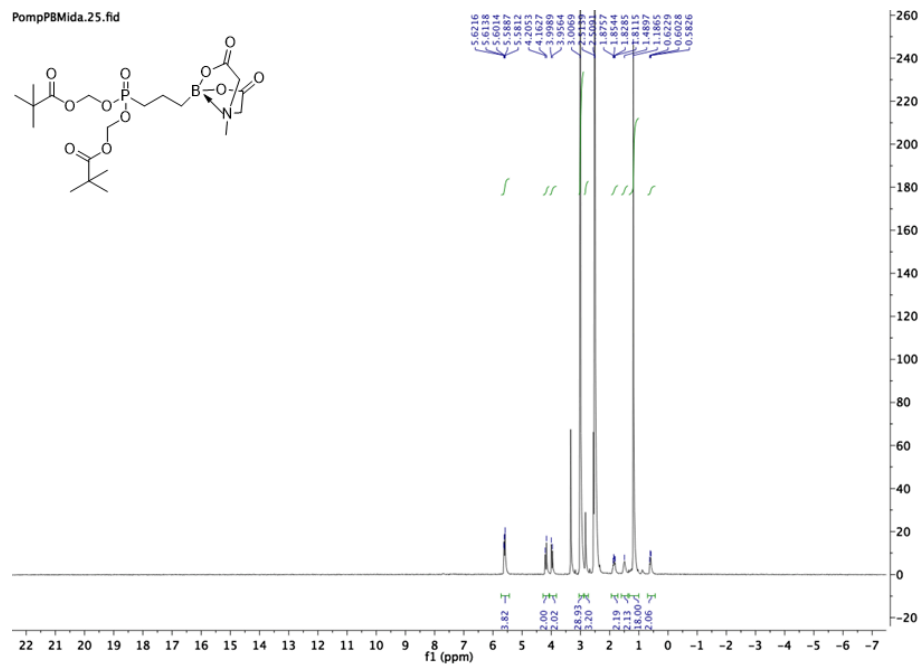


Figure S18. qNMR compound 7, internal standard DMSO₂. Purity 98%

IPP chemical rescue of *E. coli* growth inhibition for compound 6

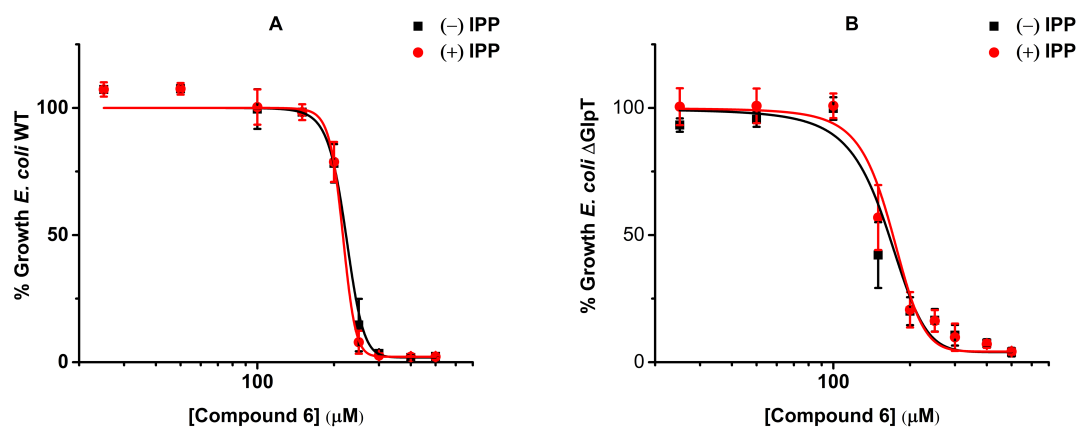


Figure S19. IPP chemical rescue of *E. coli* growth inhibition when treated with compound 6. A) and B) *E. coli* WT and *E. coli* Δ GlpT were treated with different concentrations of 6 for 18 h with and without the addition of 125 μ M IPP in LB media. (n = 3).