

## Supporting Information

### For

#### Investigation of the efficacy of benzylidene-3-methyl-2-thioxothiazolidin-4-one analogs with antioxidant activities on the inhibition of mushroom and mammal tyrosinases

Hye Jin Kim <sup>1,†</sup>, Hee Jin Jung <sup>1,†</sup>, Young Eun Kim <sup>1</sup>, Daeun Jeong <sup>1</sup>, Hyeon Seo Park <sup>1</sup>, Hye Soo Park <sup>1</sup>,  
Dongwan Kang <sup>2</sup>, Yujin Park <sup>2</sup>, Pusoon Chun <sup>3</sup>, Hae Young Chung <sup>4</sup> and Hyung Ryong Moon <sup>1,\*</sup>

<sup>1</sup> Department of Manufacturing Pharmacy, College of Pharmacy and Research Institute for Drug Development, Pusan National University, Busan 46241, Republic of Korea; khj3358@pusan.ac.kr (H.J.K.); hjjung2046@pusan.ac.kr (H.J.J.); k87115@pusan.ac.kr (Y.E.K.); 202487128j@pusan.ac.kr (D.J.); gustj6956@pusan.ac.kr (H.S.P.); hyesoo0713@pusan.ac.kr (H.S.P.)

<sup>2</sup> Department of Medicinal Chemistry, New Drug Development Center, Daegu-Gyeongbuk Medical Innovation Foundation, Daegu 41061, Republic of Korea; kdw4106@kmedihub.re.kr (D.K.); pyj1016@kmedihub.re.kr (Y.P.)

<sup>3</sup> College of Pharmacy and Inje Institute of Pharmaceutical Sciences and Research, Inje University, Gimhae 50834, Gyeongnam, Republic of Korea; pusoon@inje.ac.kr

<sup>4</sup> Department of Pharmacy, College of Pharmacy, Pusan National University, Busan 46241, Republic of Korea; hyjung@pusan.ac.kr

\* Correspondence: mhr108@pusan.ac.kr; Tel.: +82-51-510-2815; Fax: +82-51-513-6754

† These authors contributed equally to this work.

## Contents

Figure S1. $^1\text{H}$ NMR spectrum of analog <b>1</b> .....	3
Figure S2. $^{13}\text{C}$ NMR spectrum of analog <b>1</b> .....	4
Figure S3. $^1\text{H}$ NMR spectrum of analog <b>2</b> .....	5
Figure S4. $^{13}\text{C}$ NMR spectrum of analog <b>2</b> .....	6
Figure S5. $^1\text{H}$ NMR spectrum of analog <b>3</b> .....	7
Figure S6. $^1\text{H}$ -coupled NMR spectrum of analog <b>3</b> .....	8
Figure S7. $^1\text{H}$ NMR spectrum of analog <b>4</b> .....	9
Figure S8. $^{13}\text{C}$ NMR spectrum of analog <b>4</b> .....	10
Figure S9. $^1\text{H}$ NMR spectrum of analog <b>5</b> .....	11
Figure S10. $^{13}\text{C}$ NMR spectrum of analog <b>5</b> .....	12
Figure S11. $^1\text{H}$ NMR spectrum of analog <b>6</b> .....	13
Figure S12. $^{13}\text{C}$ NMR spectrum of analog <b>6</b> .....	14
Figure S13. $^1\text{H}$ NMR spectrum of analog <b>7</b> .....	15
Figure S14. $^{13}\text{C}$ NMR spectrum of analog <b>7</b> .....	16
Figure S15. $^1\text{H}$ NMR spectrum of analog <b>8</b> .....	17
Figure S16. $^{13}\text{C}$ NMR spectrum of analog <b>8</b> .....	18
Figure S17. HRMS spectrum of analog <b>1</b> .....	19
Figure S18. HRMS spectrum of analog <b>3</b> .....	20
Figure S19. HRMS spectrum of analog <b>5</b> .....	21

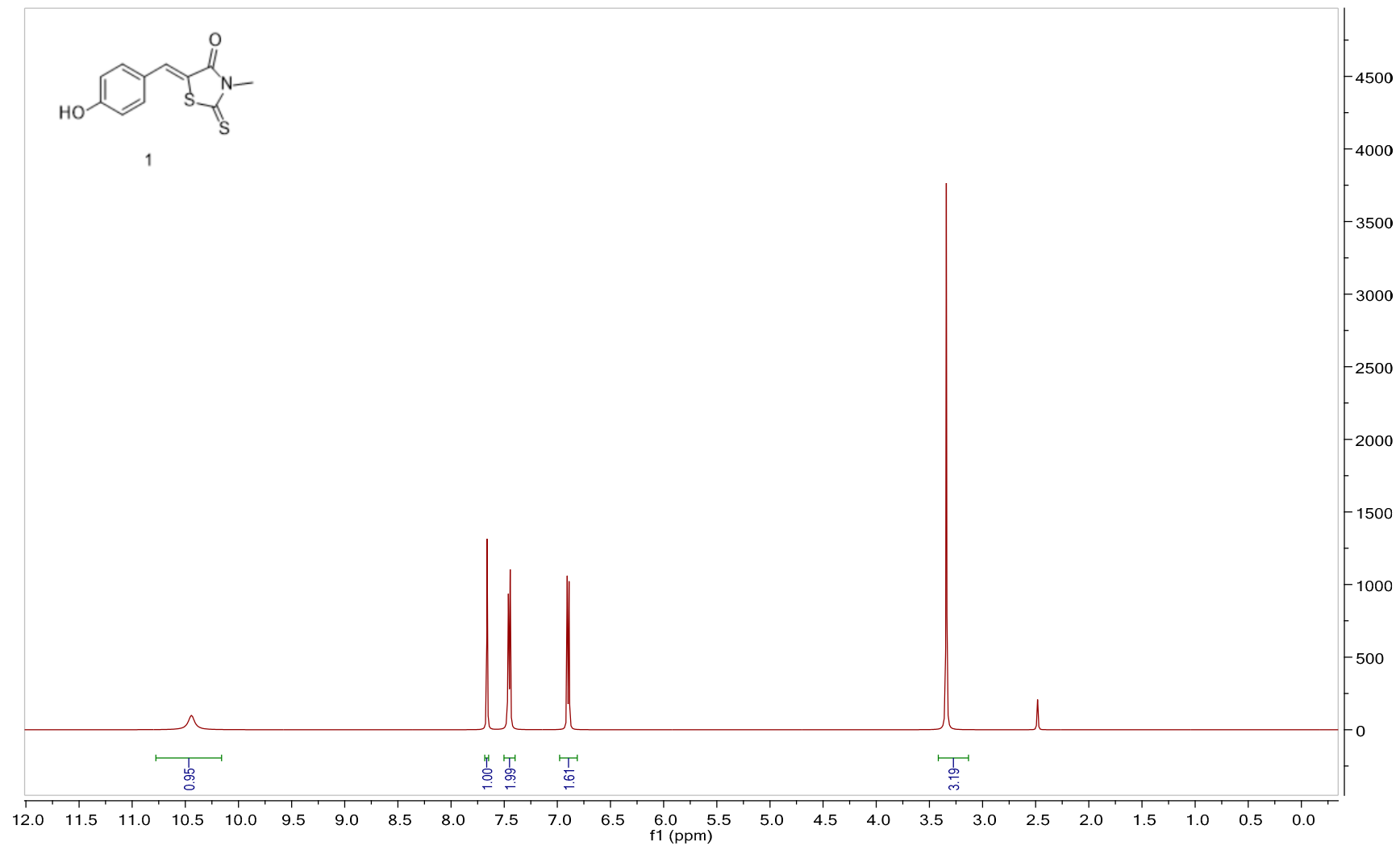


Figure S1. <sup>1</sup>H NMR spectrum of analog **1**

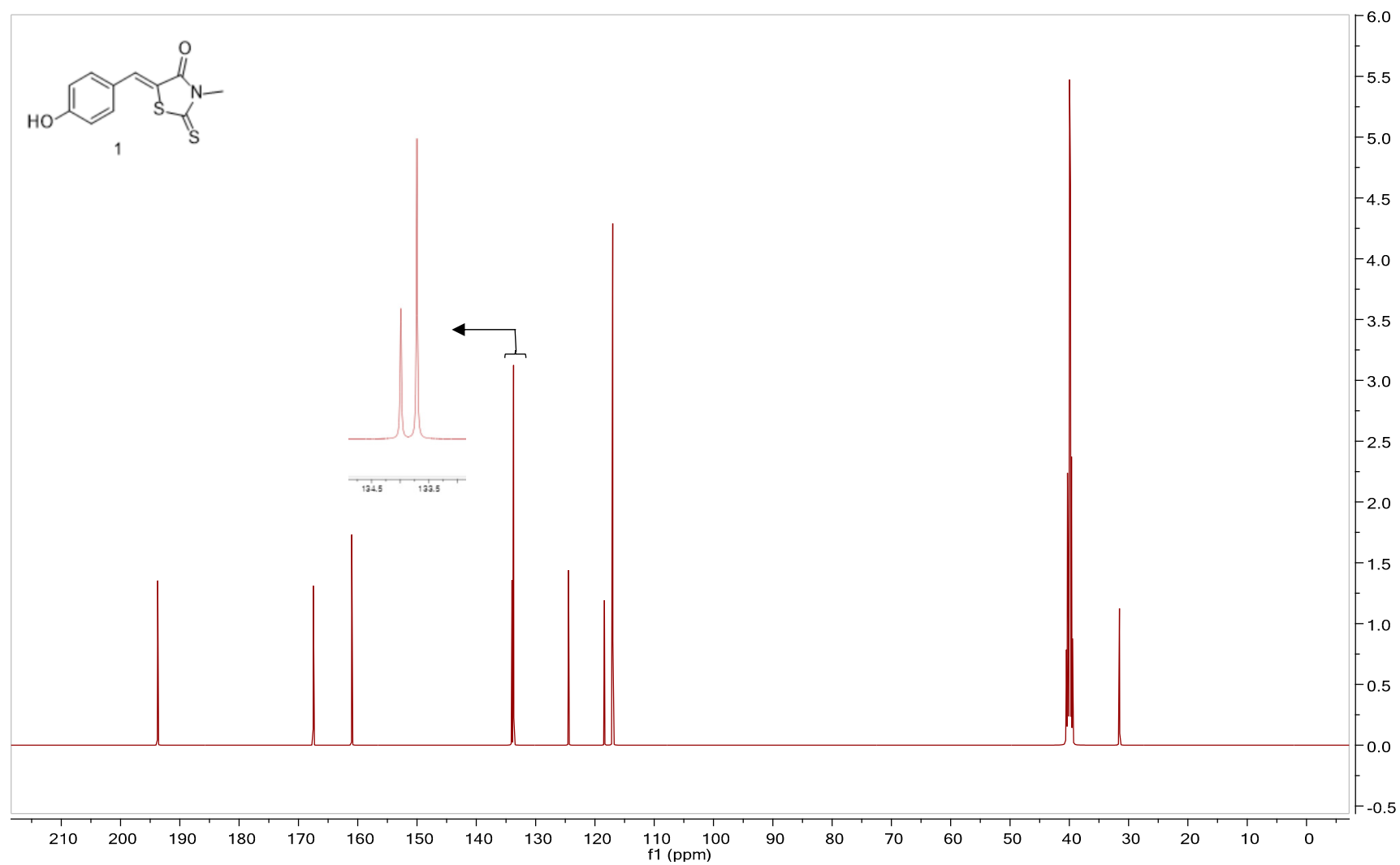


Figure S2.  $^{13}\text{C}$  NMR spectrum of analog **1**

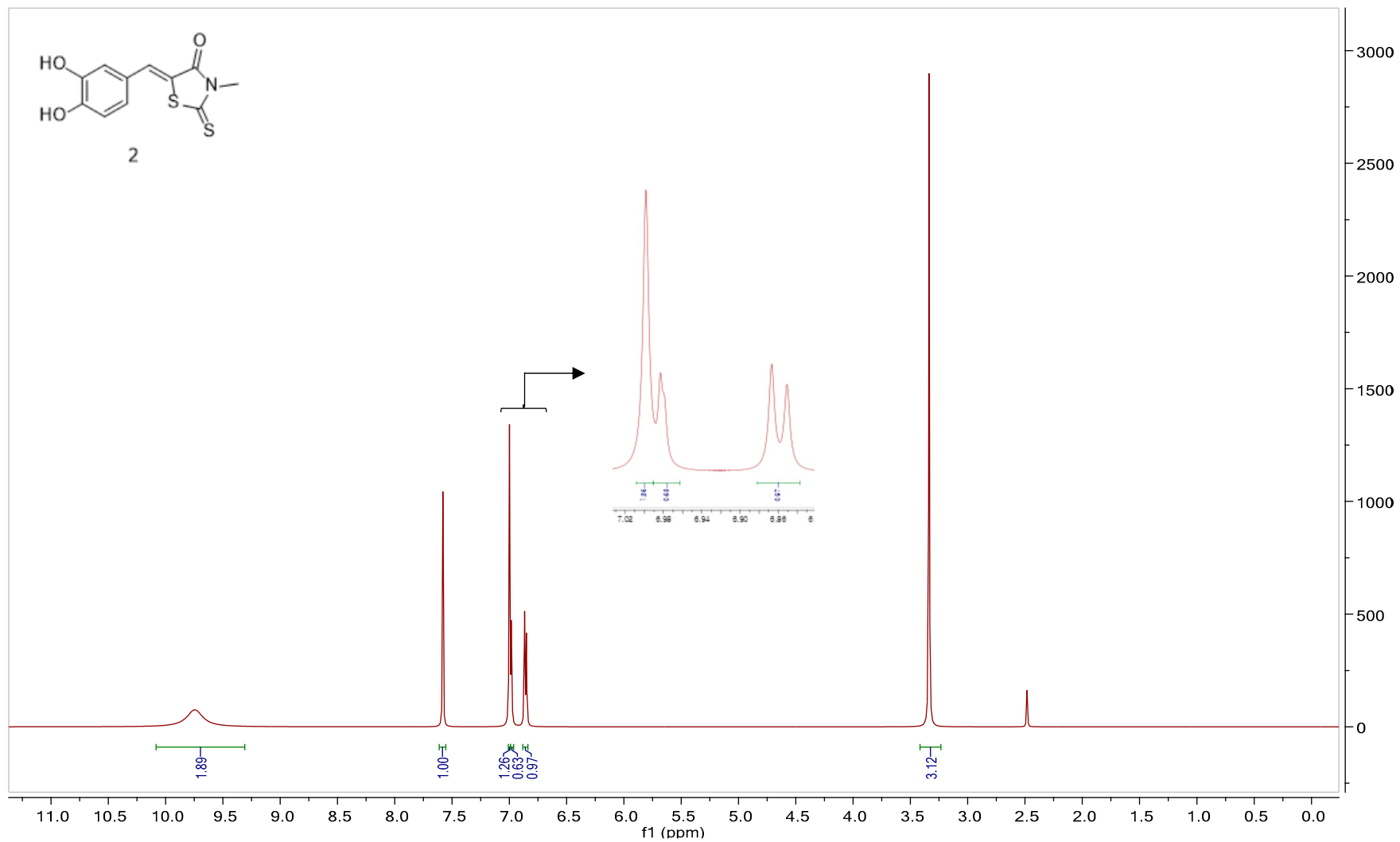


Figure S3. <sup>1</sup>H NMR spectrum of analog 2

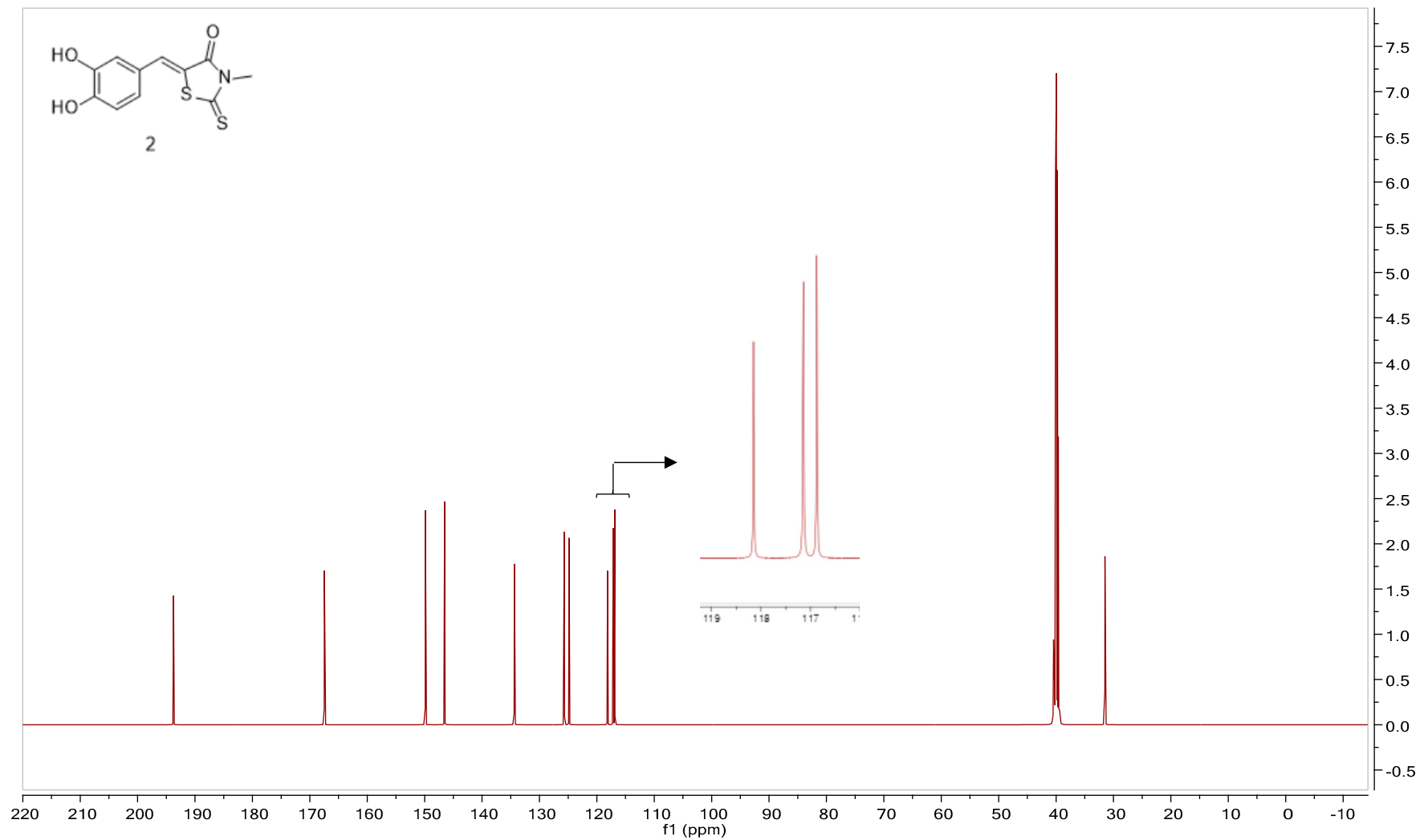


Figure S4.  $^{13}\text{C}$  NMR spectrum of analog **2**

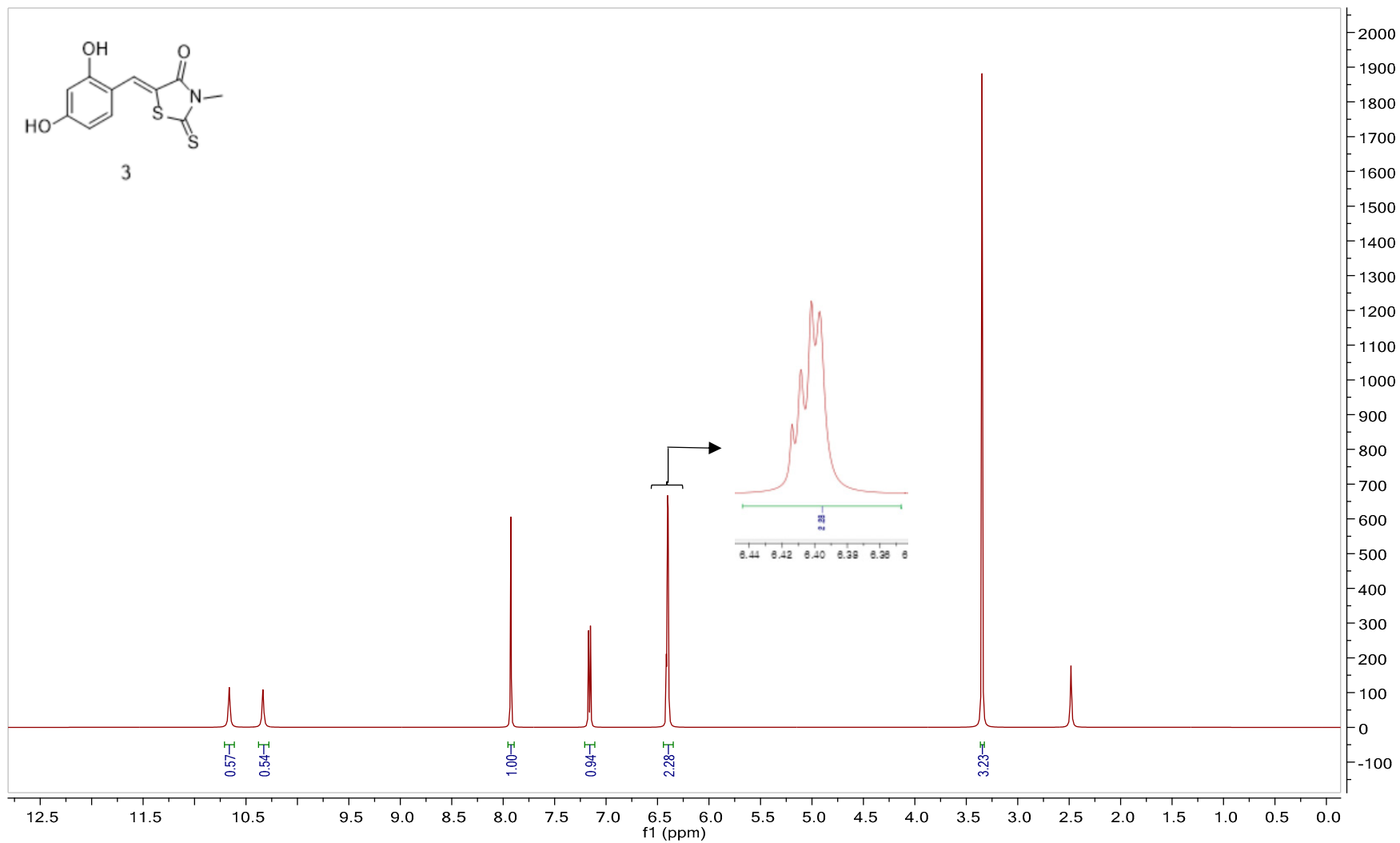


Figure S5.  $^1\text{H}$  NMR spectrum of analog **3**

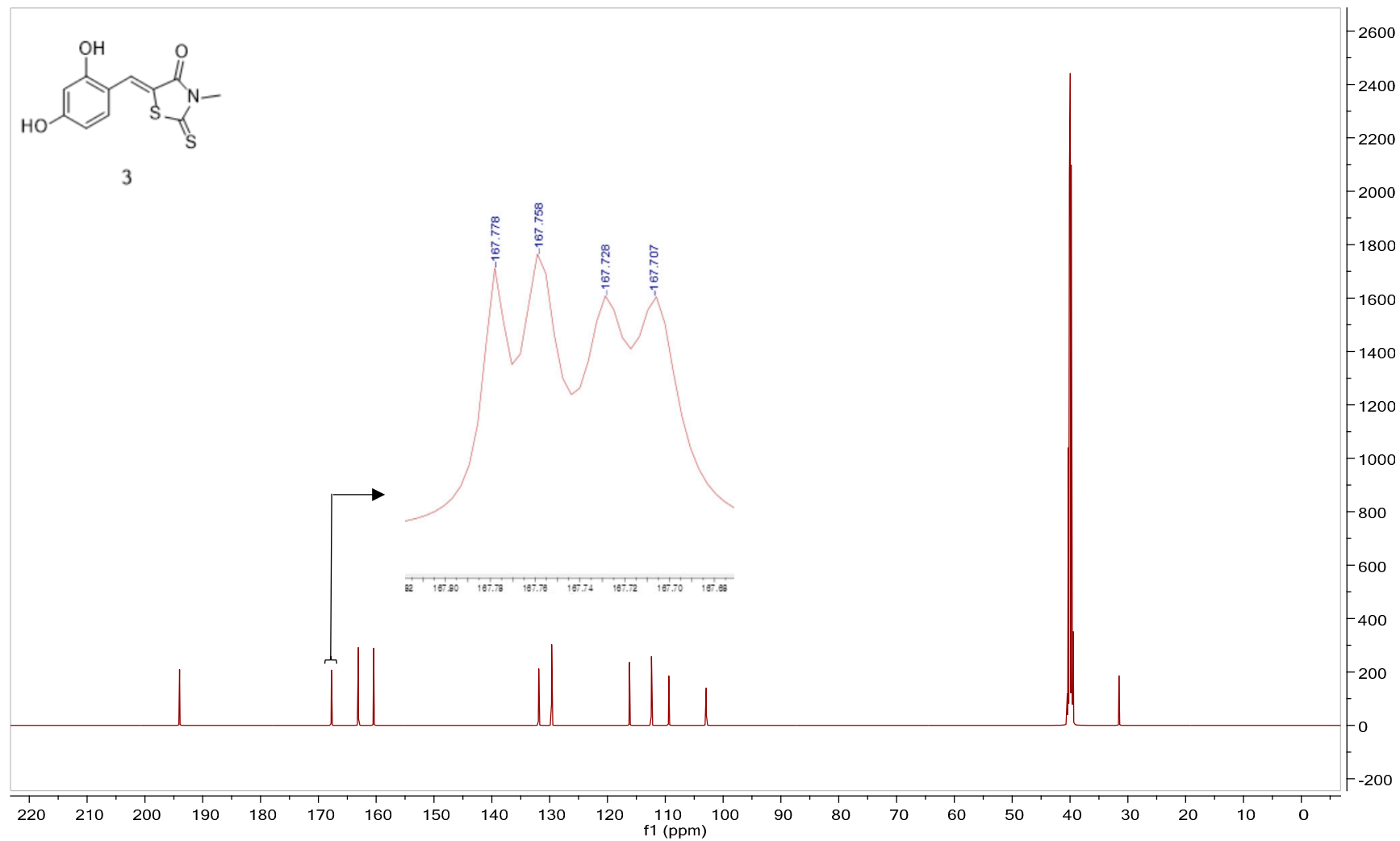


Figure S6. <sup>1</sup>H-coupled NMR spectrum of analog **3**



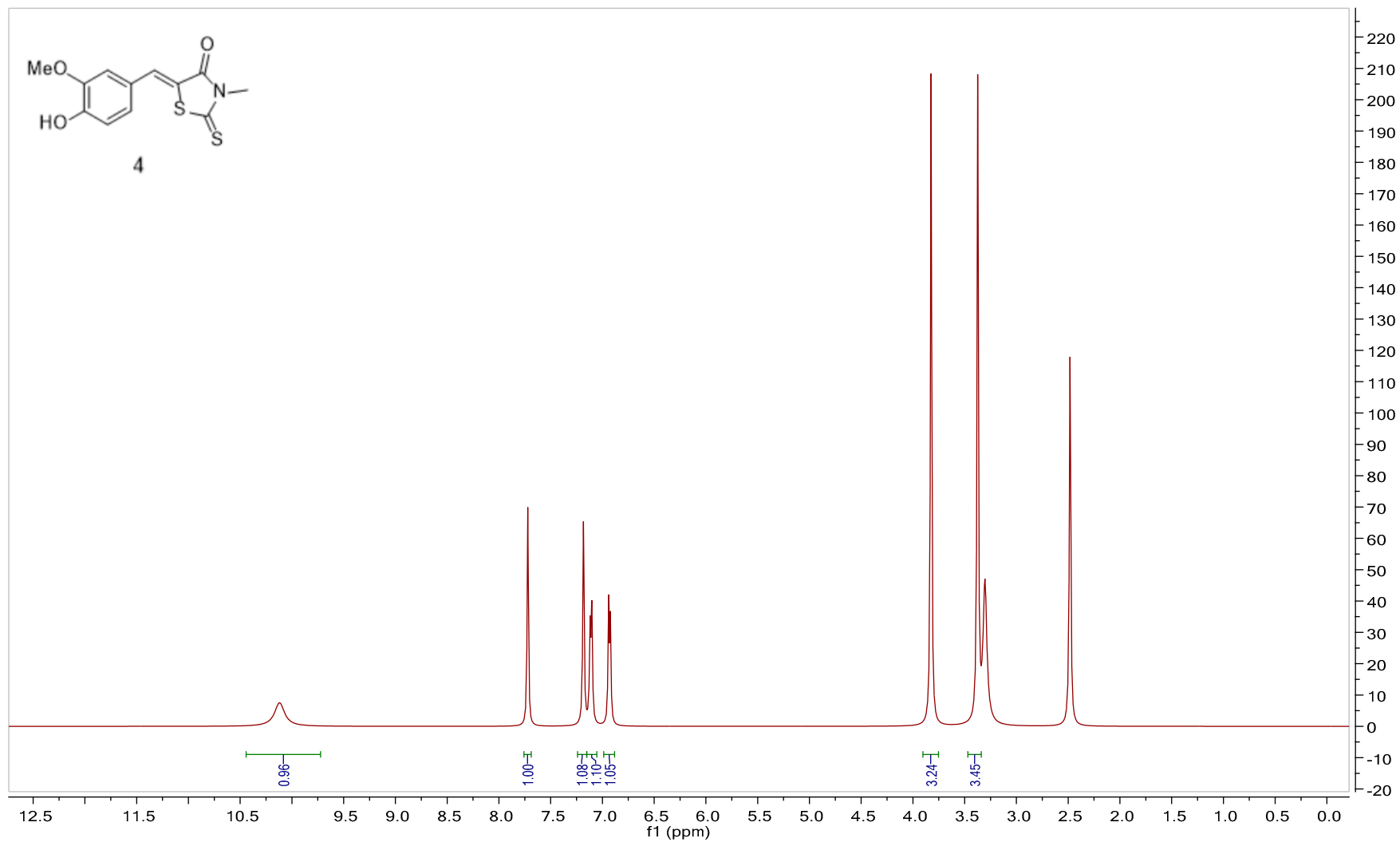


Figure S7. <sup>1</sup>H NMR spectrum of analog 4

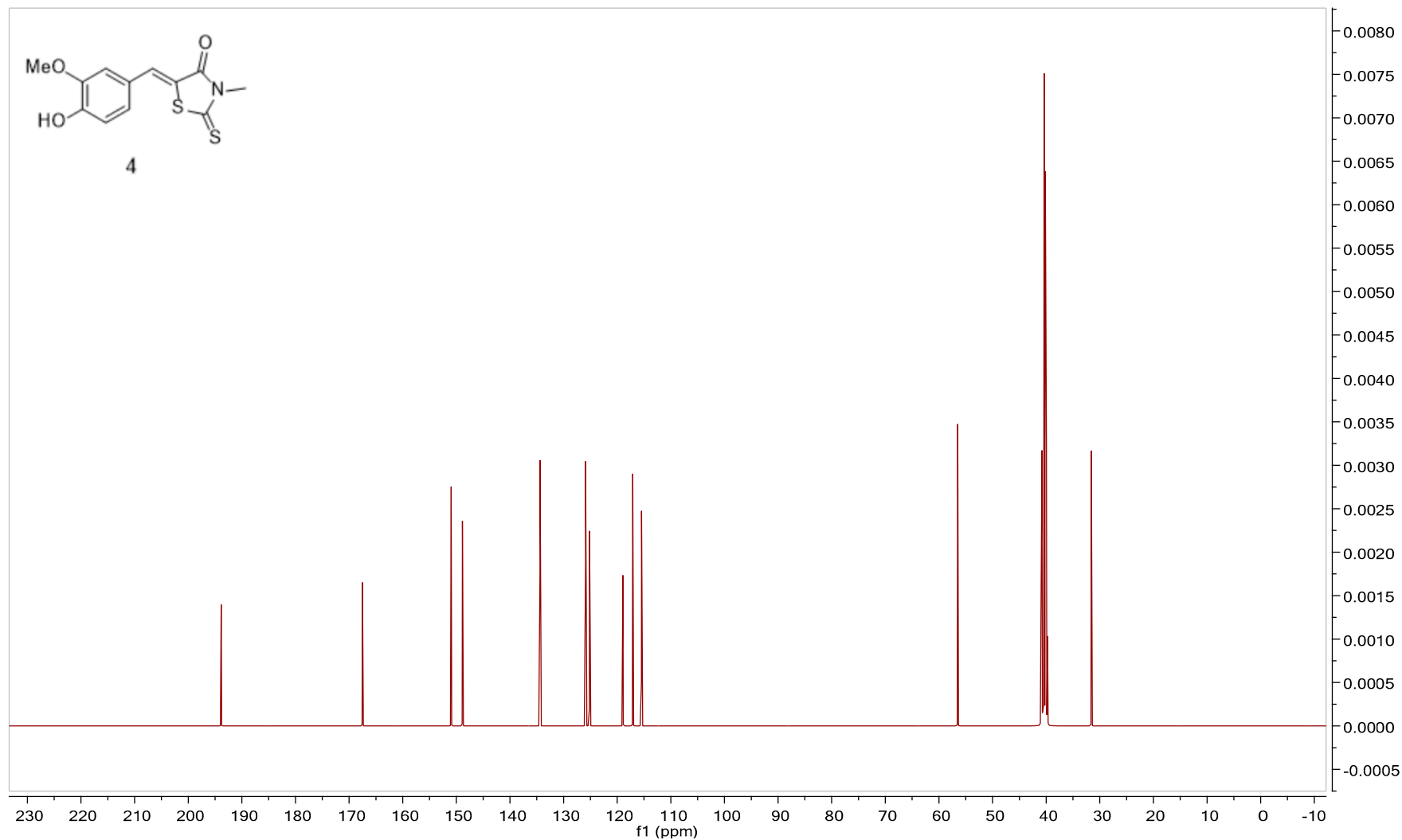


Figure S8. <sup>13</sup>C NMR spectrum of analog 4

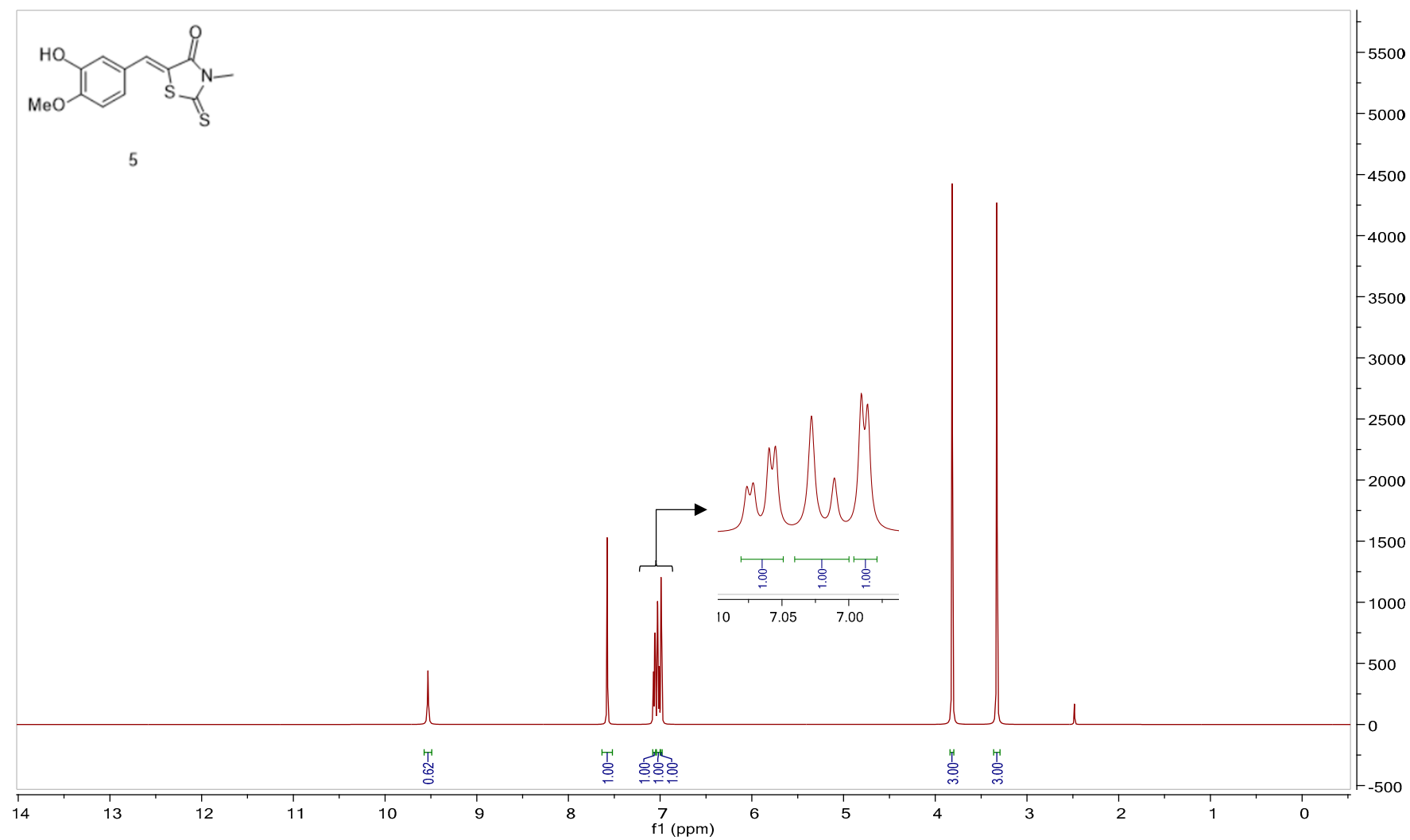


Figure S9. <sup>1</sup>H NMR spectrum of analog **5**

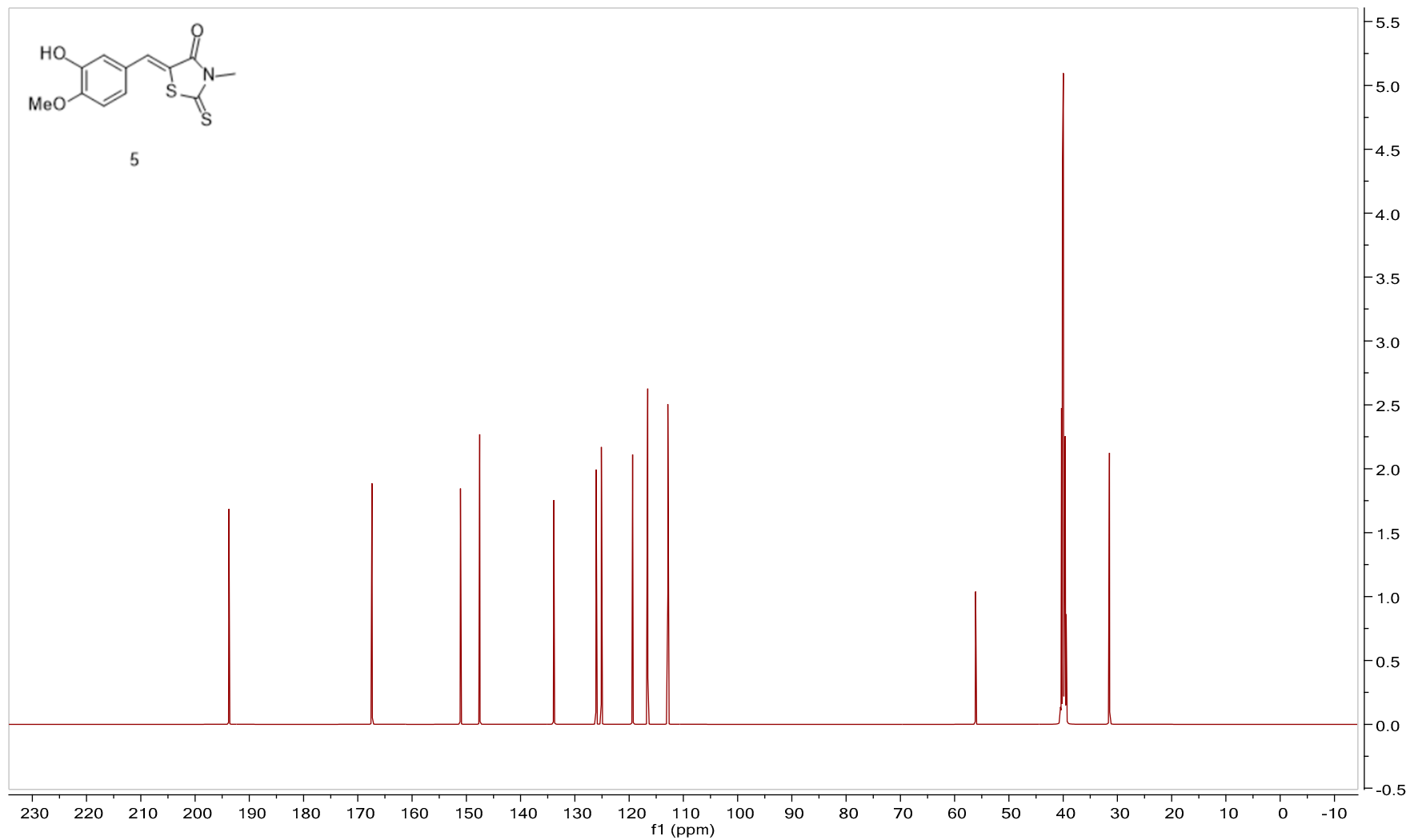


Figure S10.  $^{13}\text{C}$  NMR spectrum of analog **5**

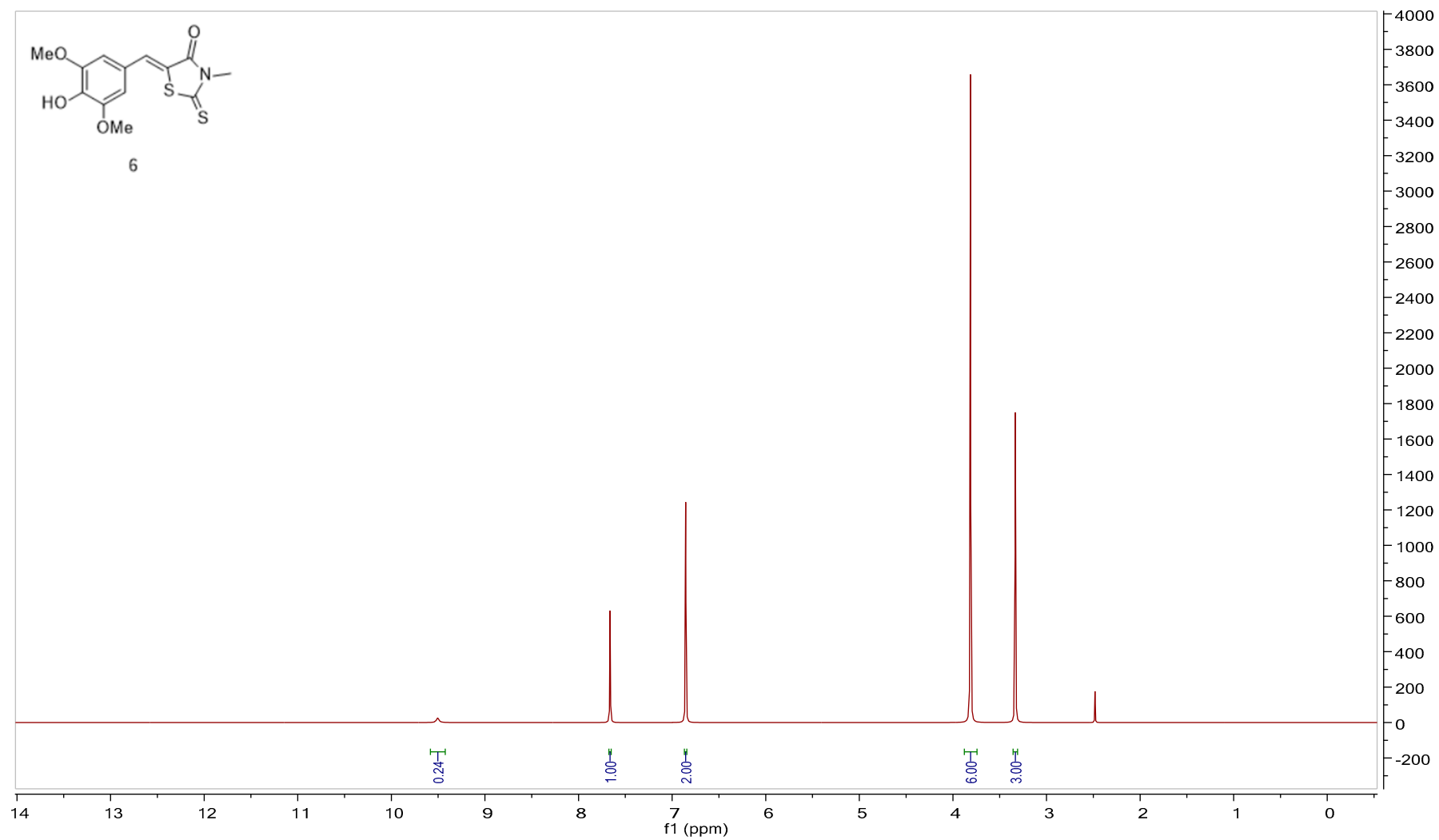


Figure S11.  $^1\text{H}$  NMR spectrum of analog **6**

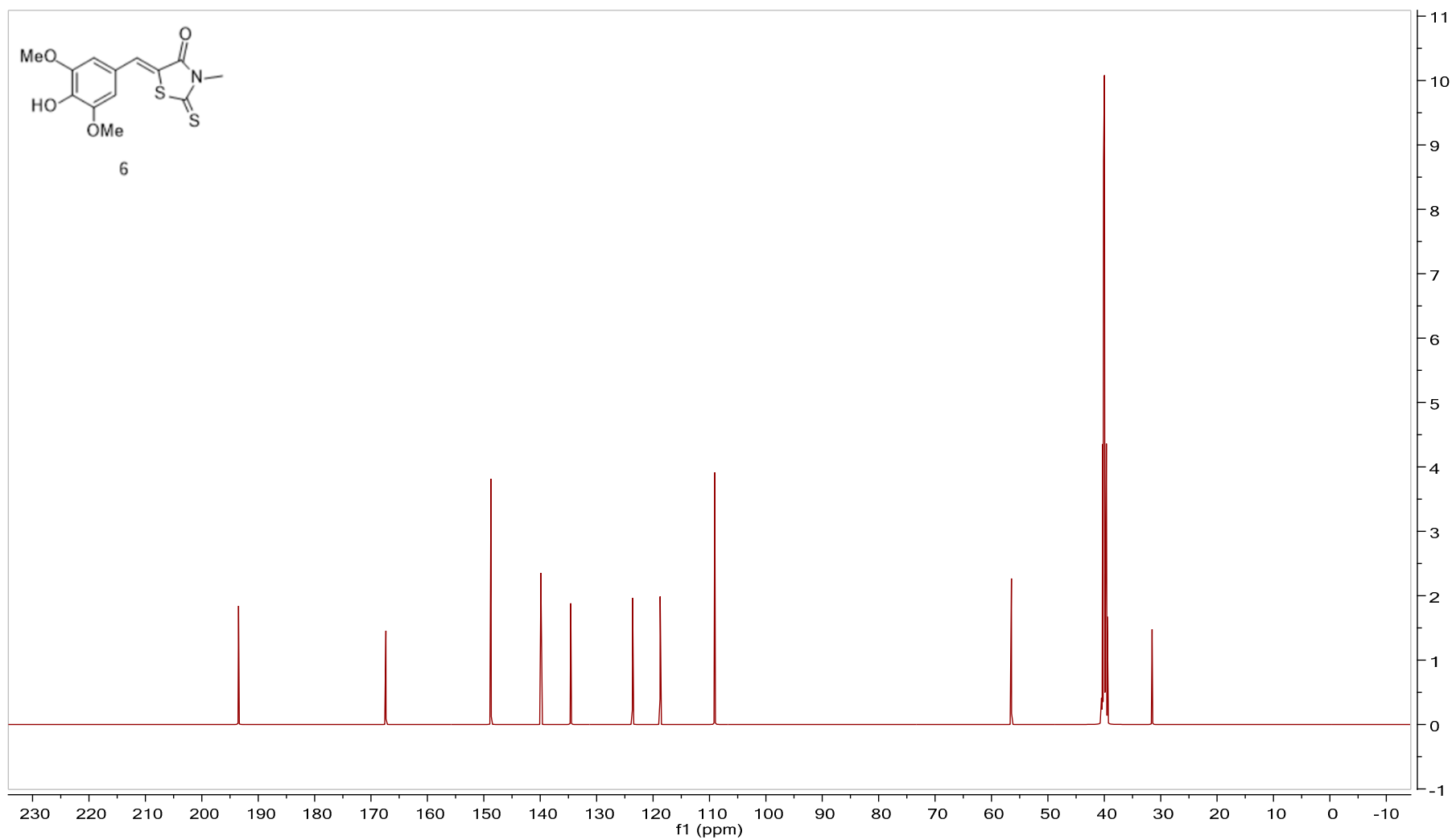


Figure S12.  $^{13}\text{C}$  NMR spectrum of analog **6**

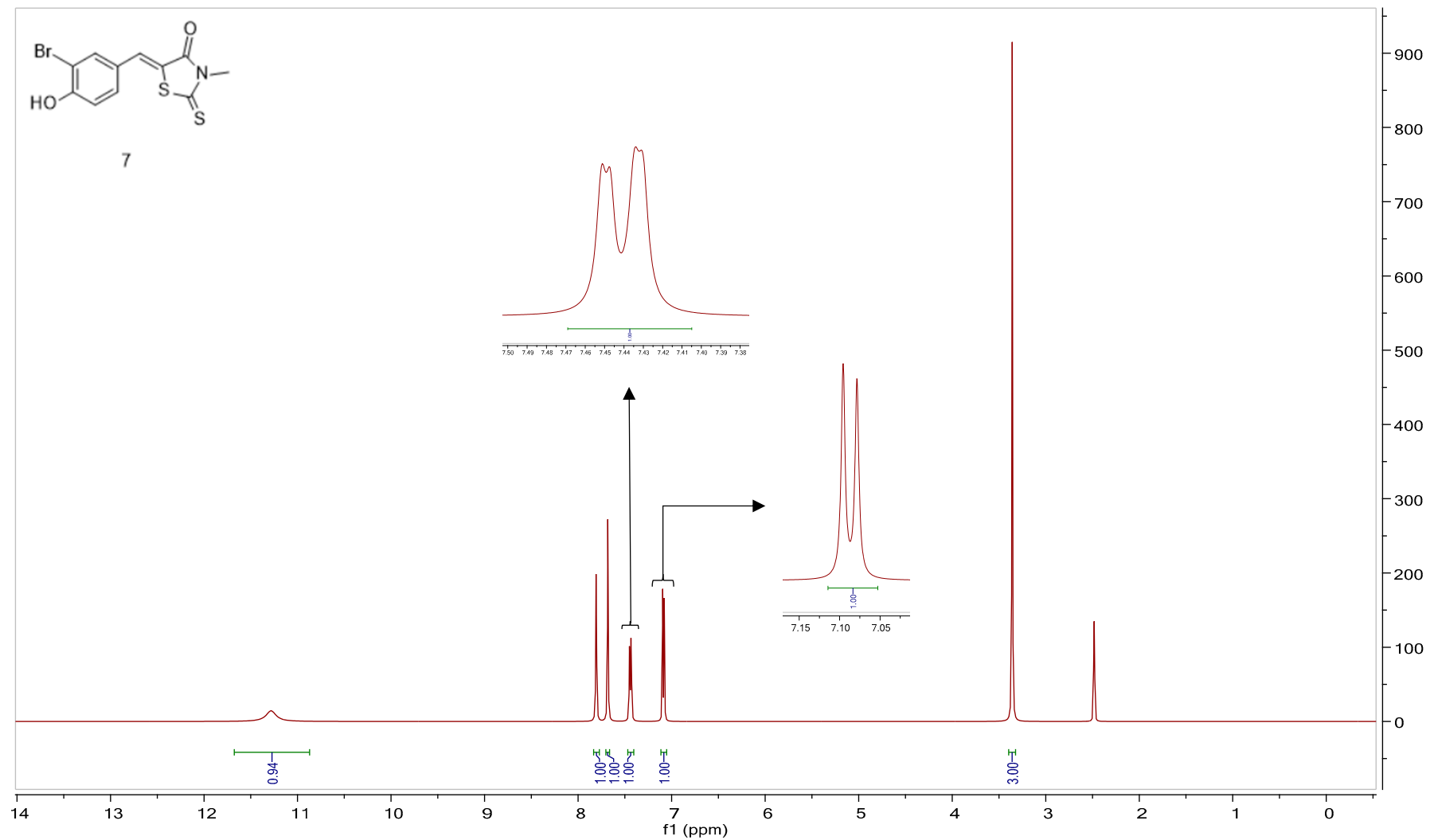


Figure S13. <sup>1</sup>H NMR spectrum of analog 7

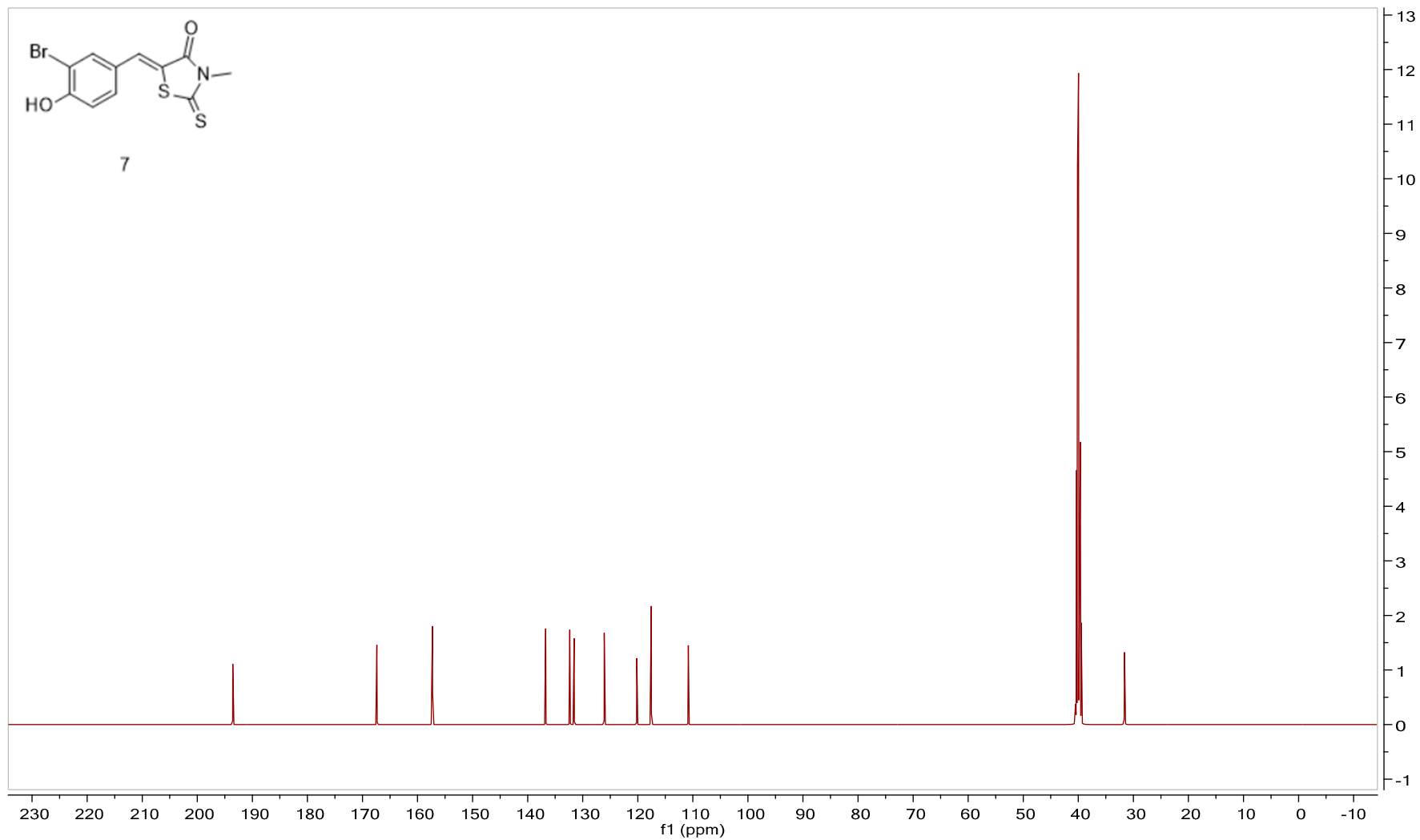


Figure S14.  $^{13}\text{C}$  NMR spectrum of analog 7



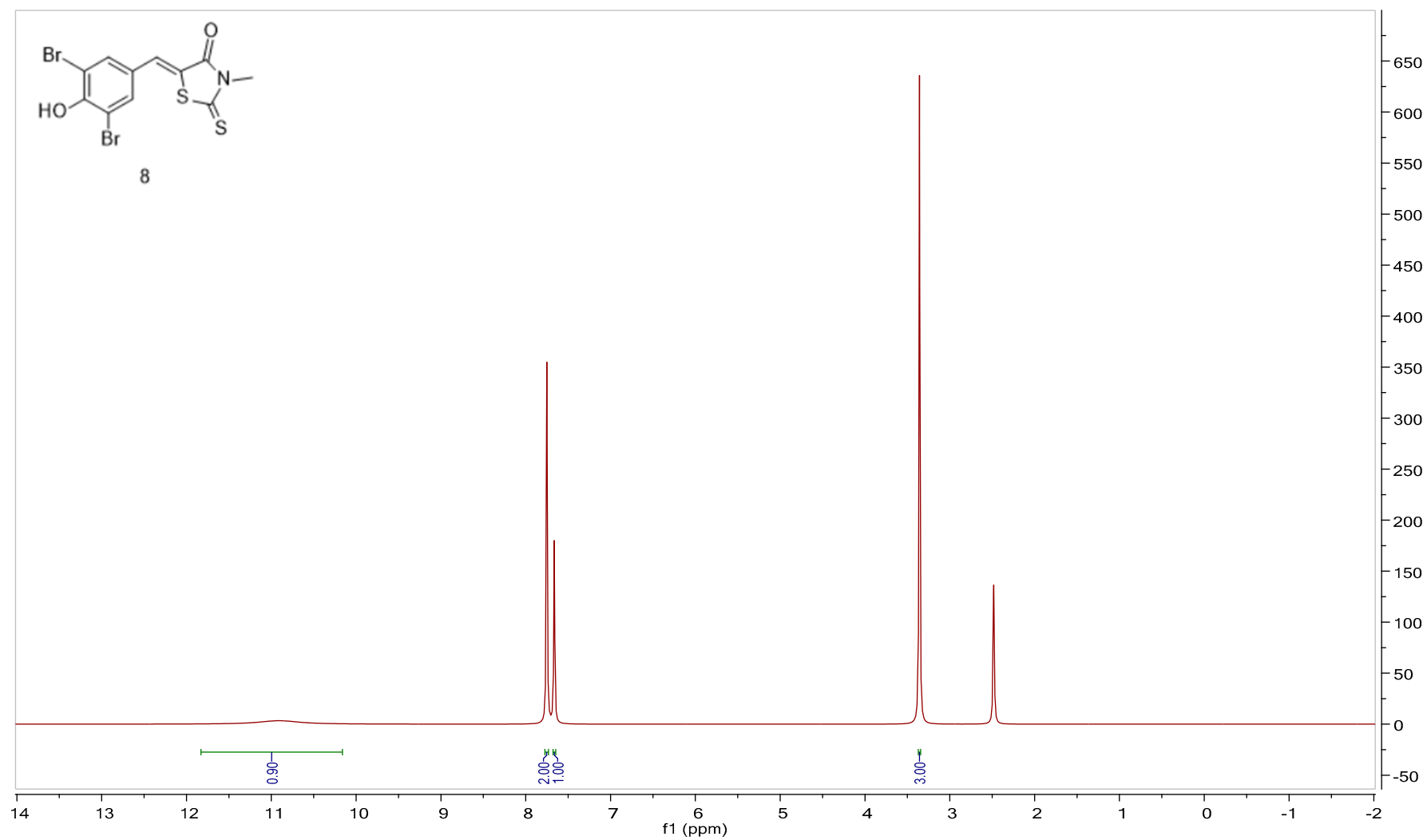


Figure S15.  $^1\text{H}$  NMR spectrum of analog **8**

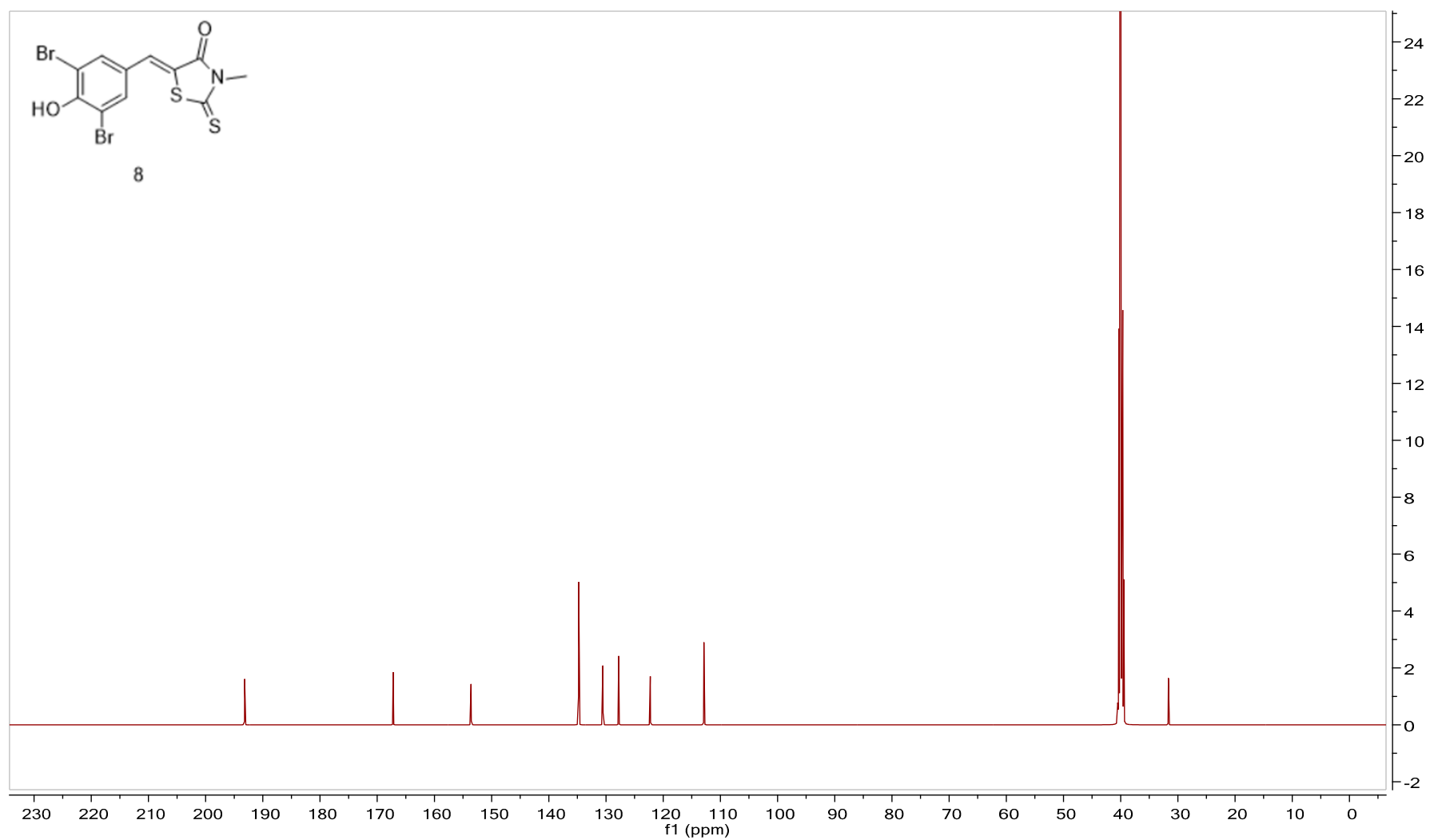


Figure S16.  $^{13}\text{C}$  NMR spectrum of analog **8**

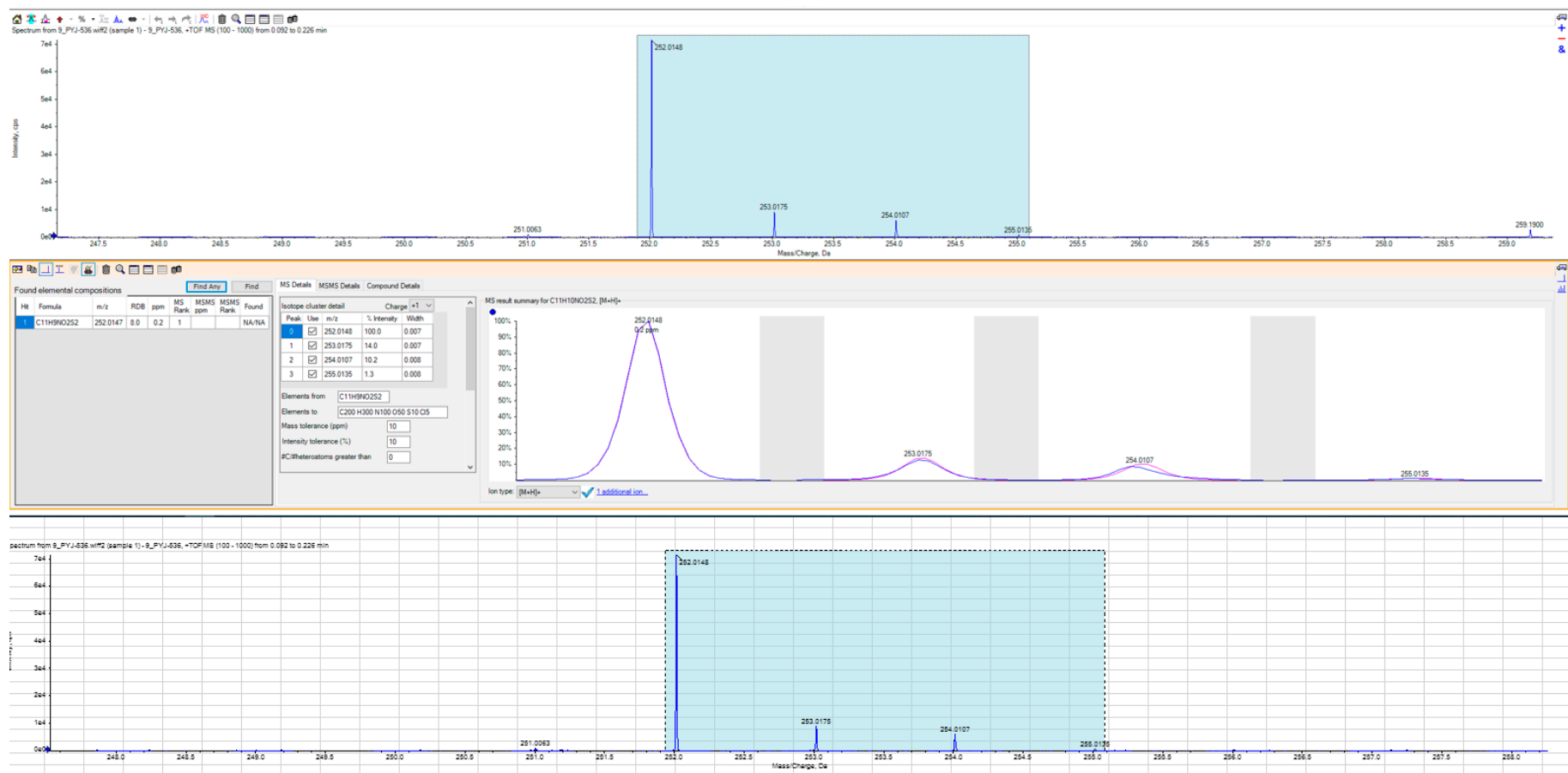


Figure S17. HRMS spectrum of analog 1

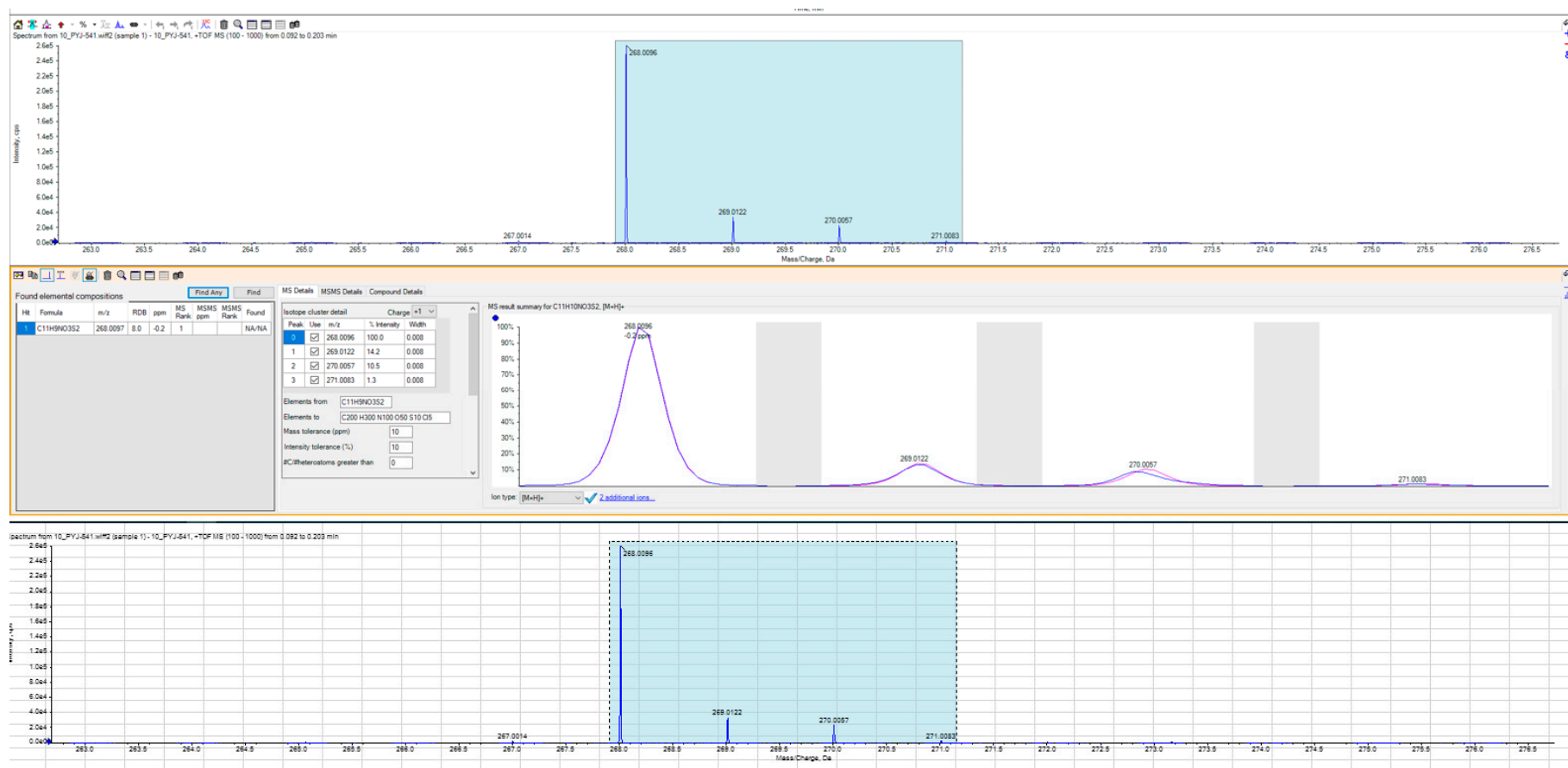


Figure S18. HRMS spectrum of analog 3

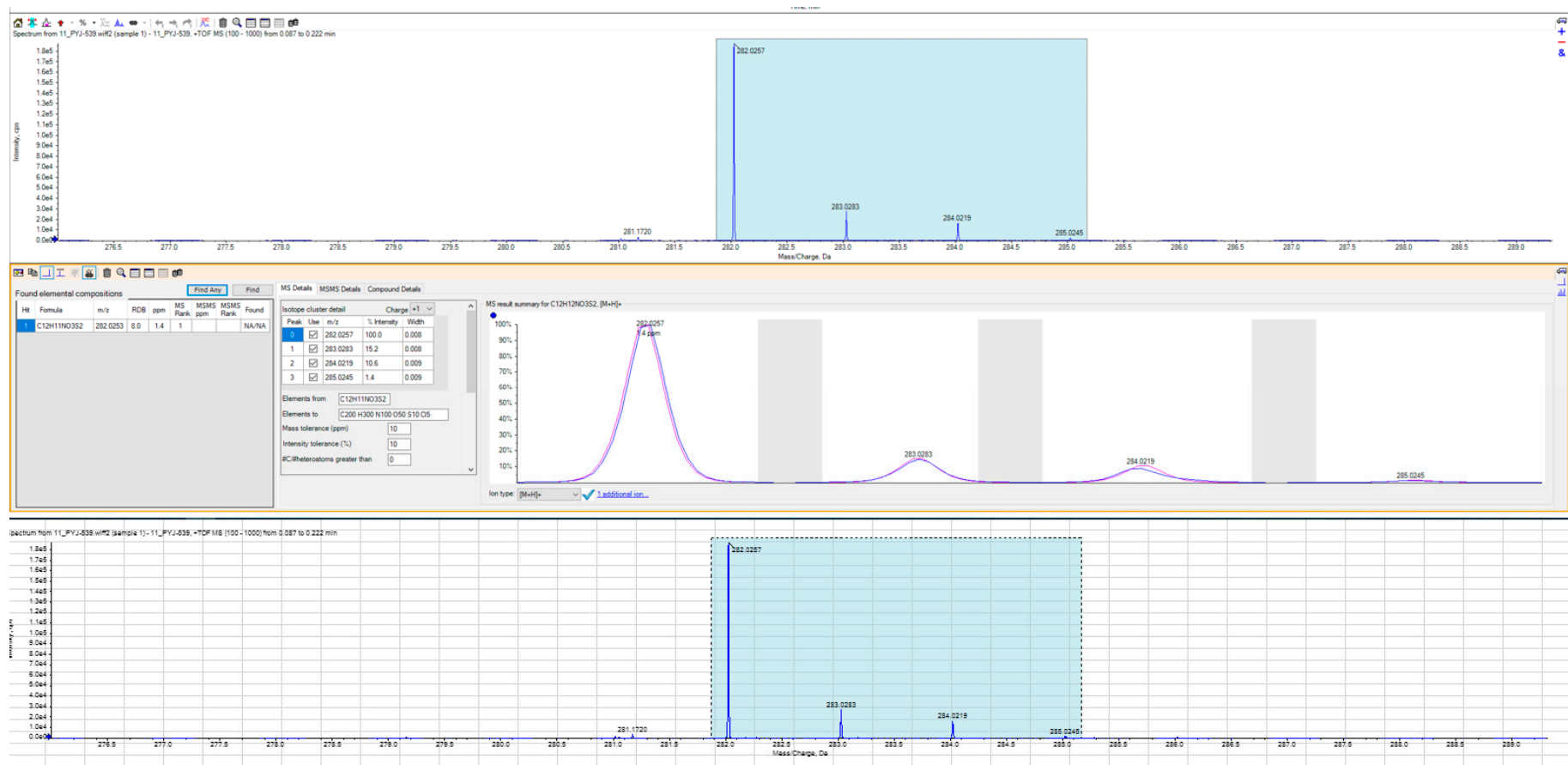


Figure S19. HRMS spectrum of analog **5**