Supporting Information

Bonnevillamides, Linear Heptapeptides Isolated from a Great Salt Lake-Derived Streptomyces sp.

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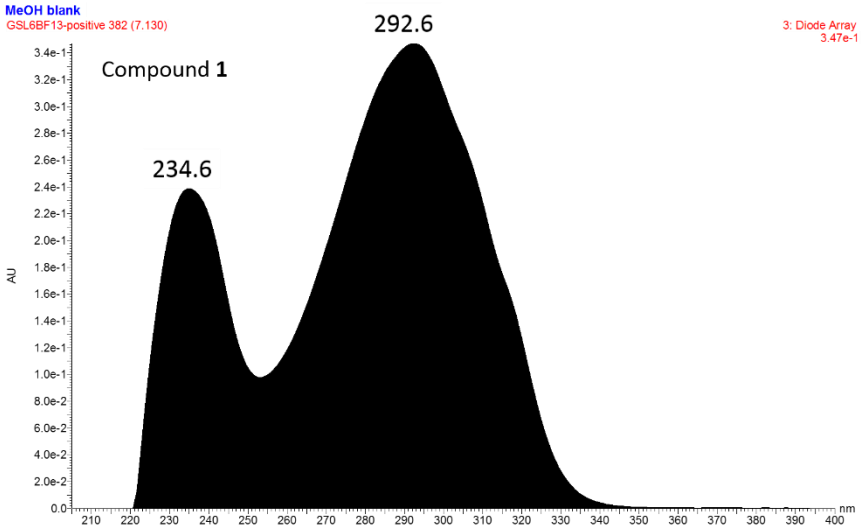
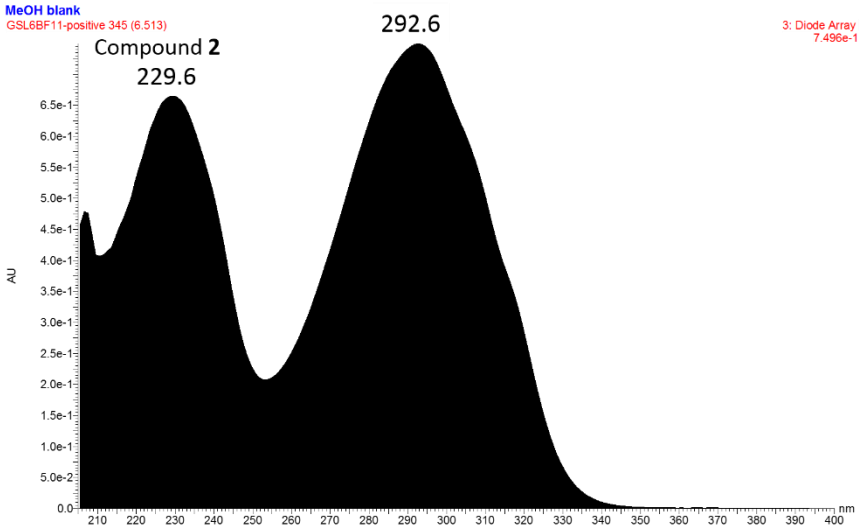
List of Supporting Information

Figure S1. UV spectra of compounds **1**–**3**.





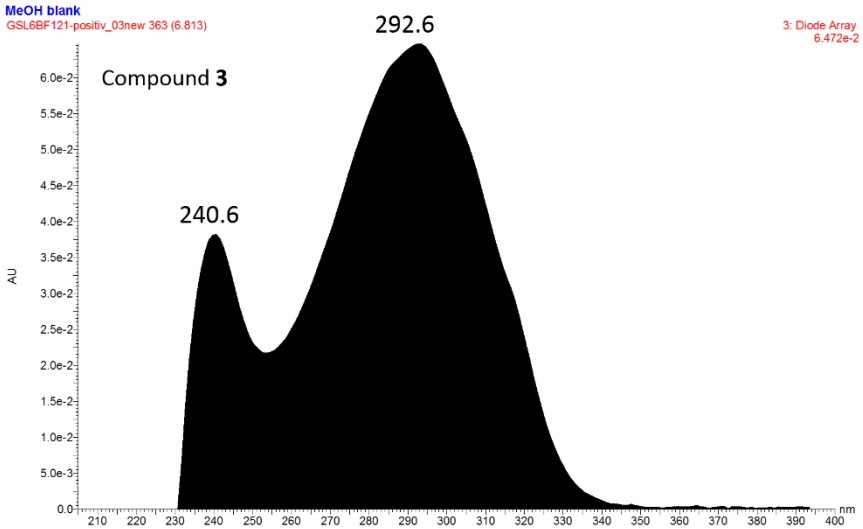


Figure S2.[1]H NMR spectrum of compound **1** in DMSO-d_6

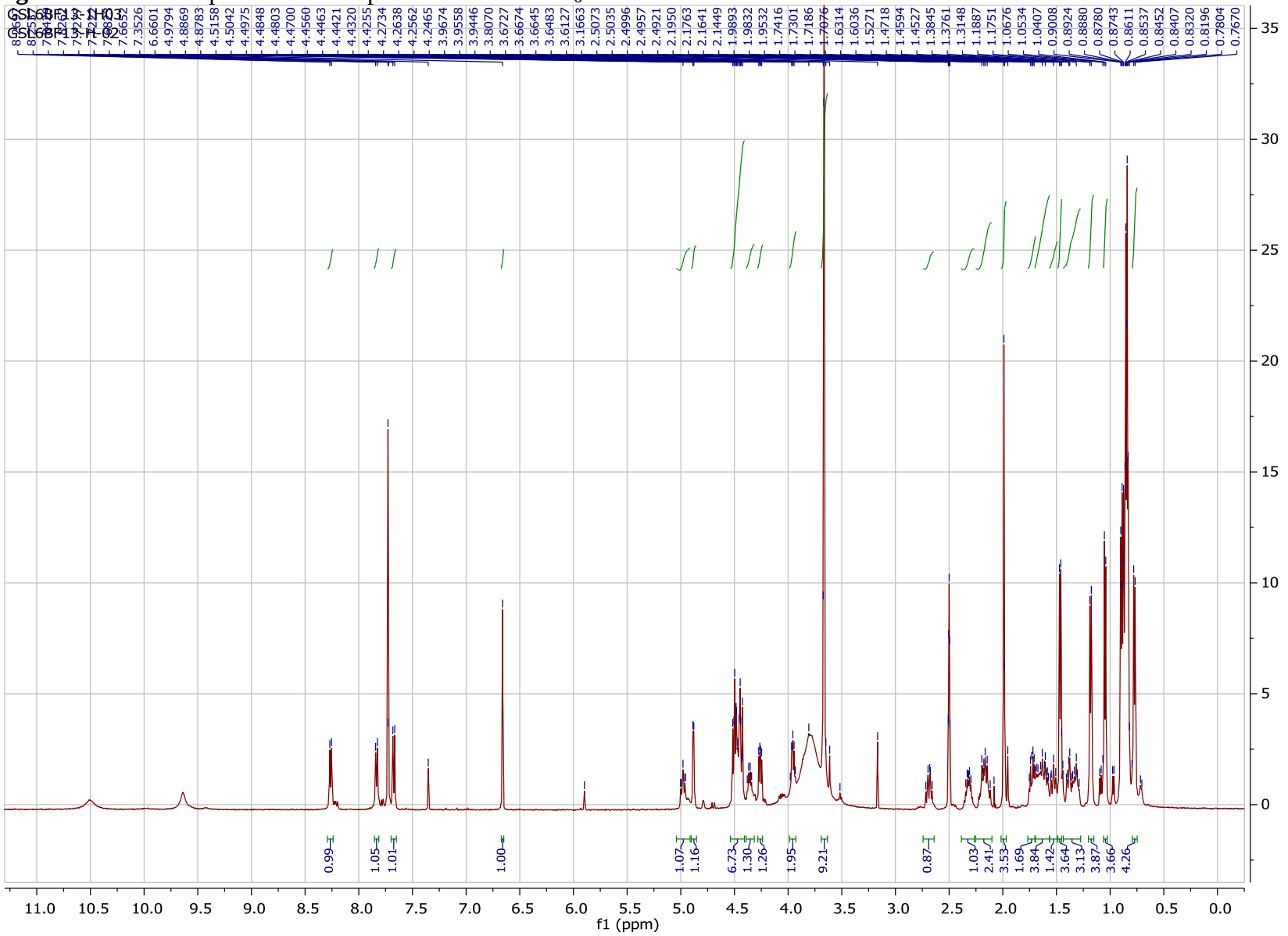


Figure S3.[13]C NMR spectrum of compound **1** in DMSO-d_6

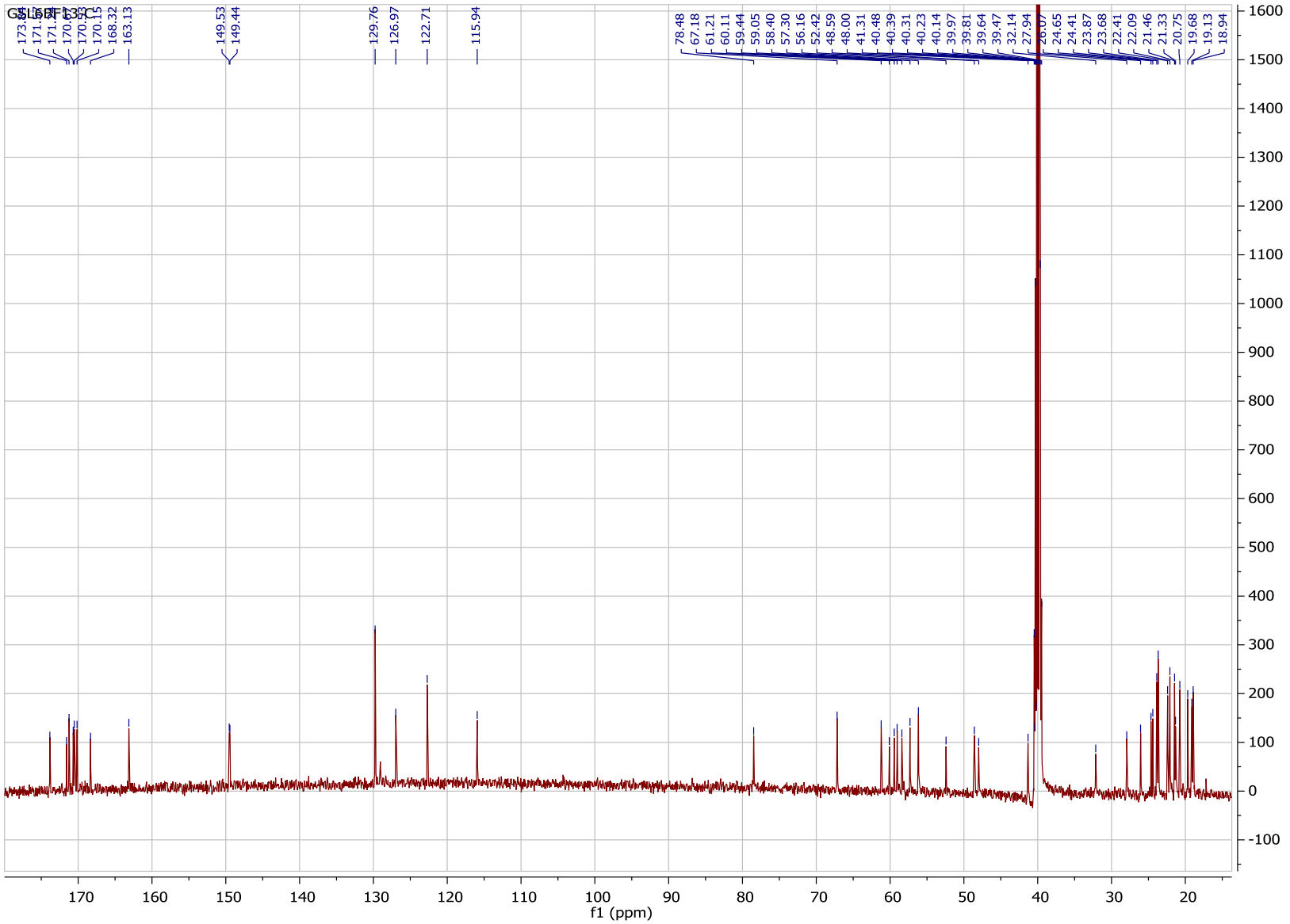


Figure S4.gHSQCAD spectrum of compound **1** in DMSO-d_6

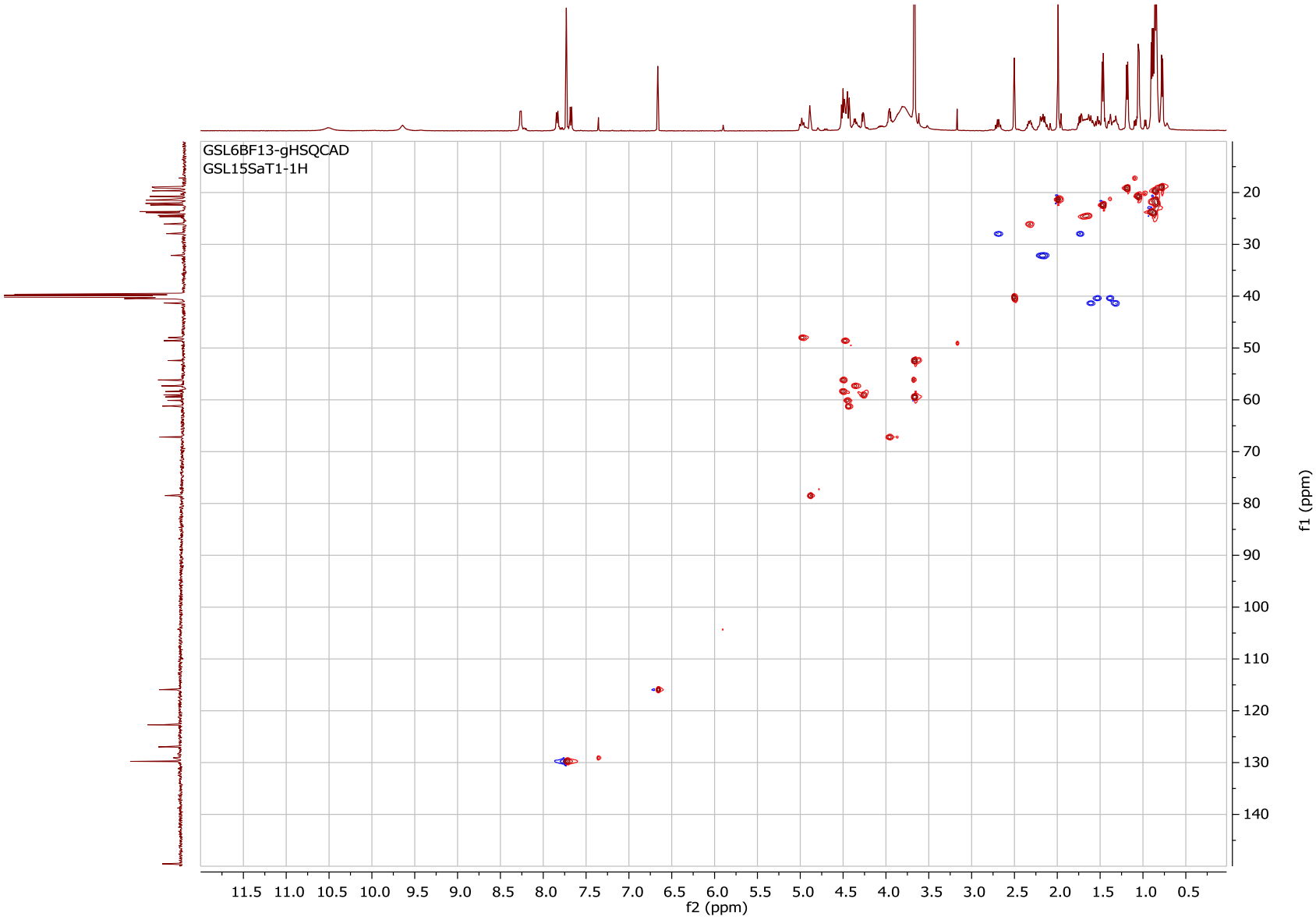


Figure S5.gHMBCAD spectrum of compound **1** in DMSO-d_6

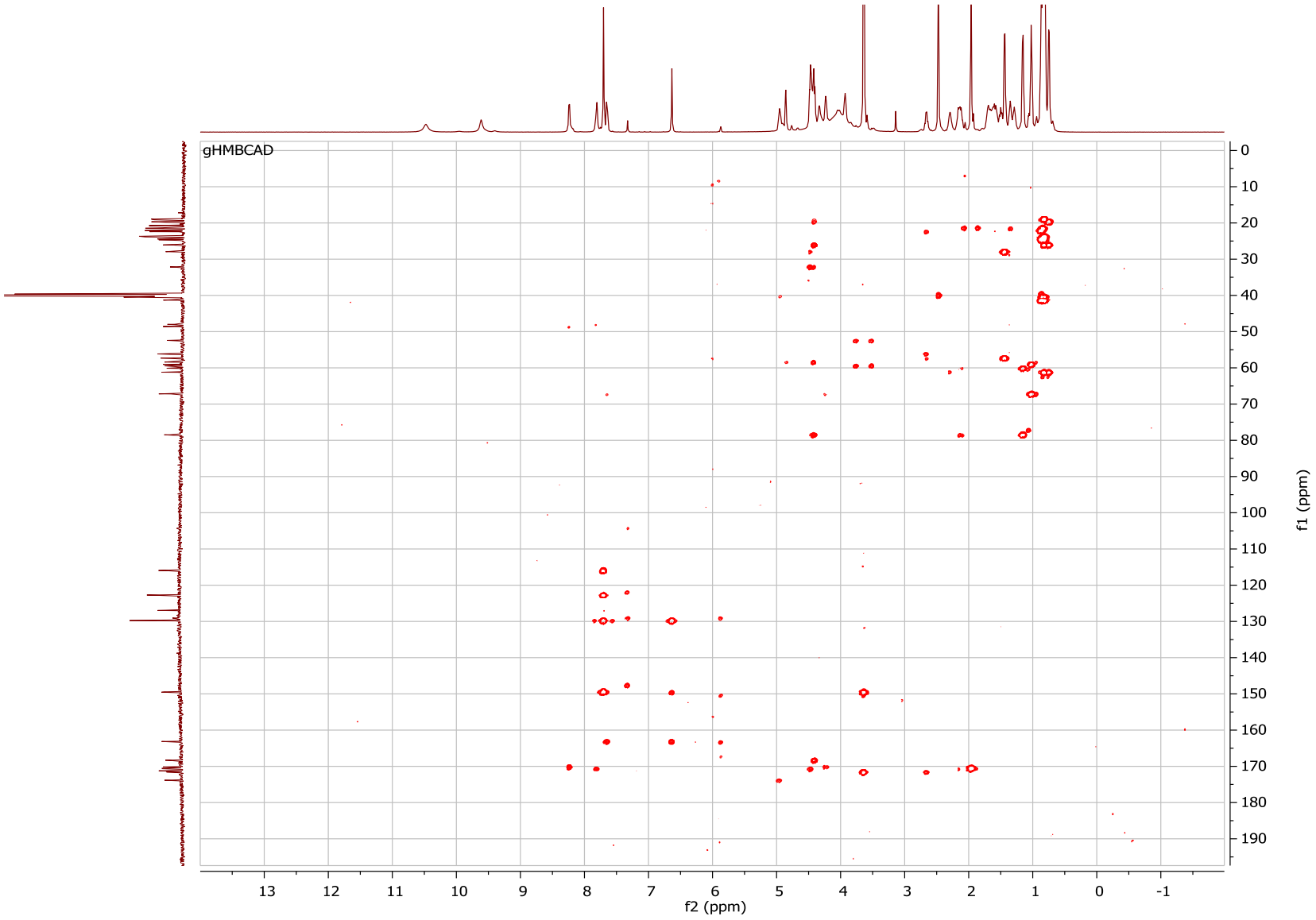


Figure S6. TOCSY spectrum of compound **1** in DMSO-d_6

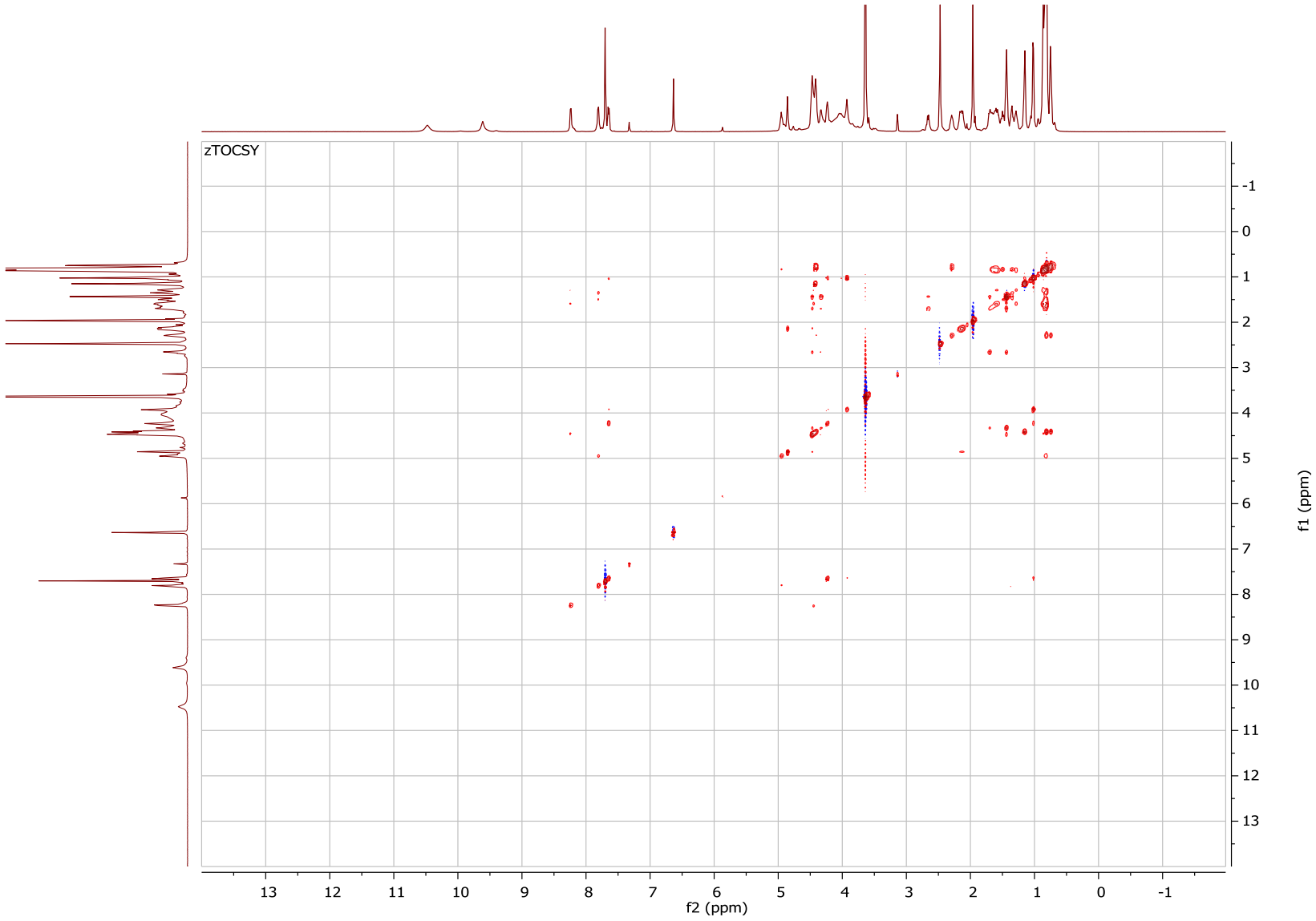


Figure S7. COSY spectrum of compound **1** in DMSO-d_6

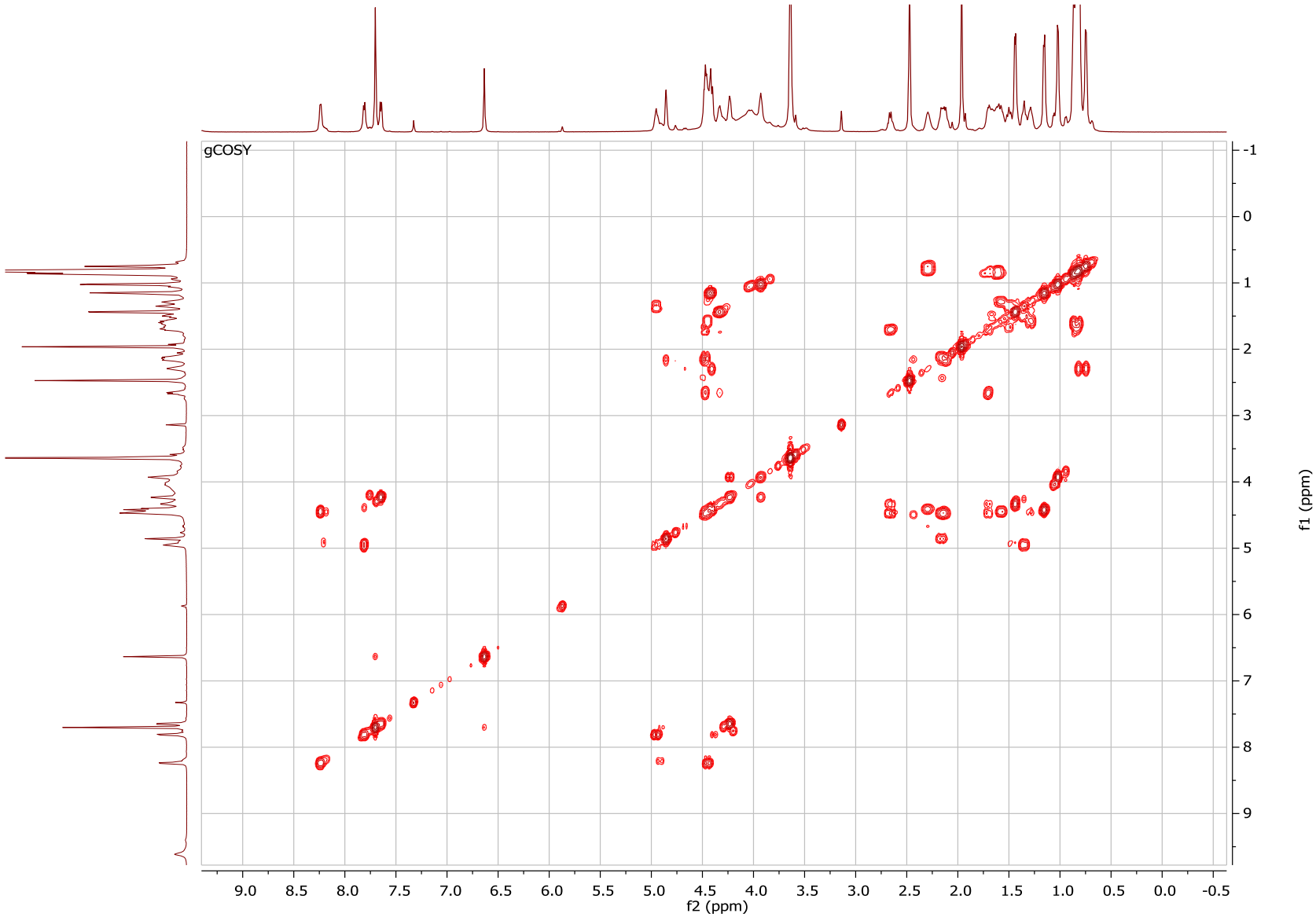


Figure S8. ROESY spectrum of compound **1** in DMSO-d_6

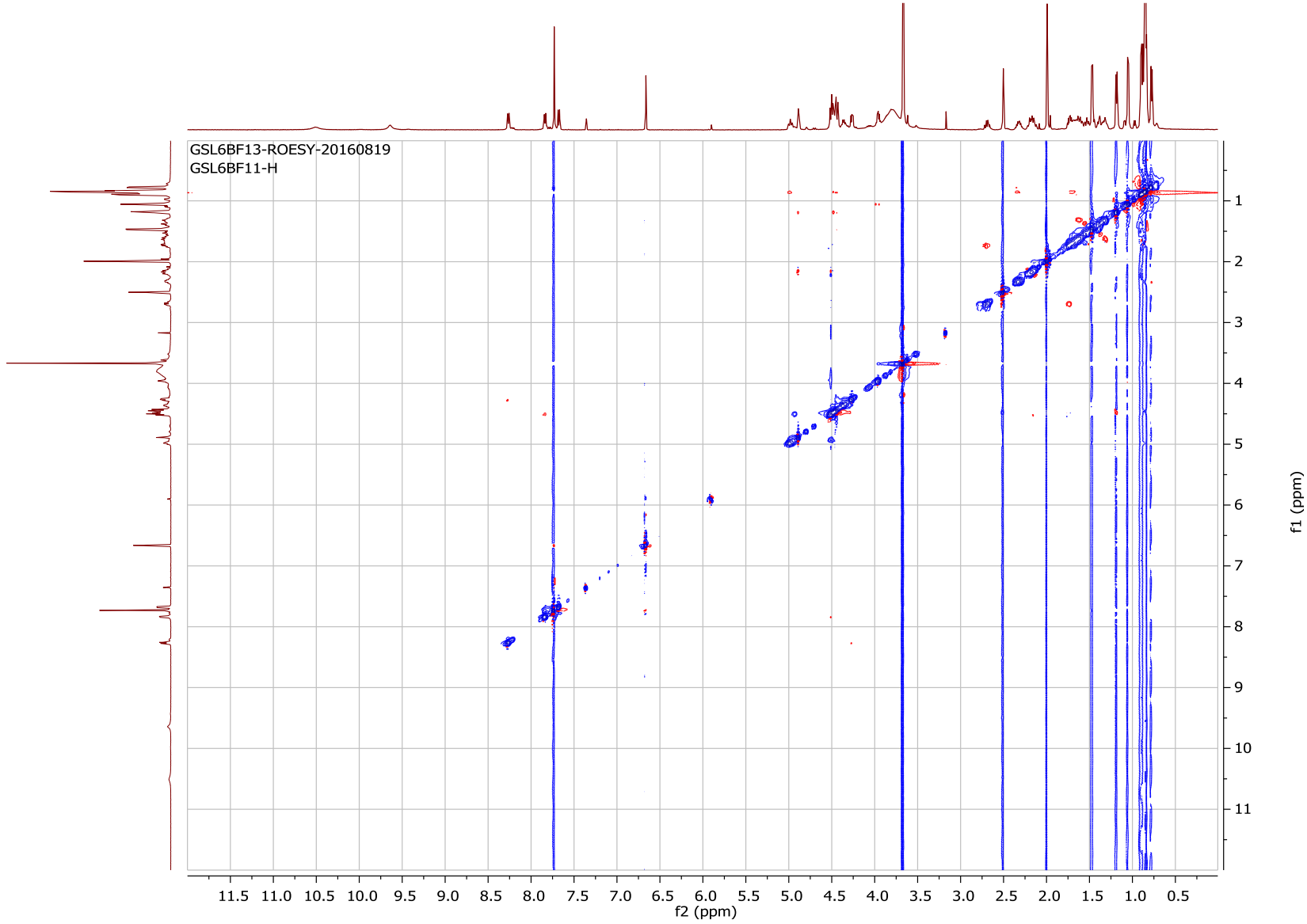


Figure S9. NOESY spectrum of compound **1** in DMSO-d_6

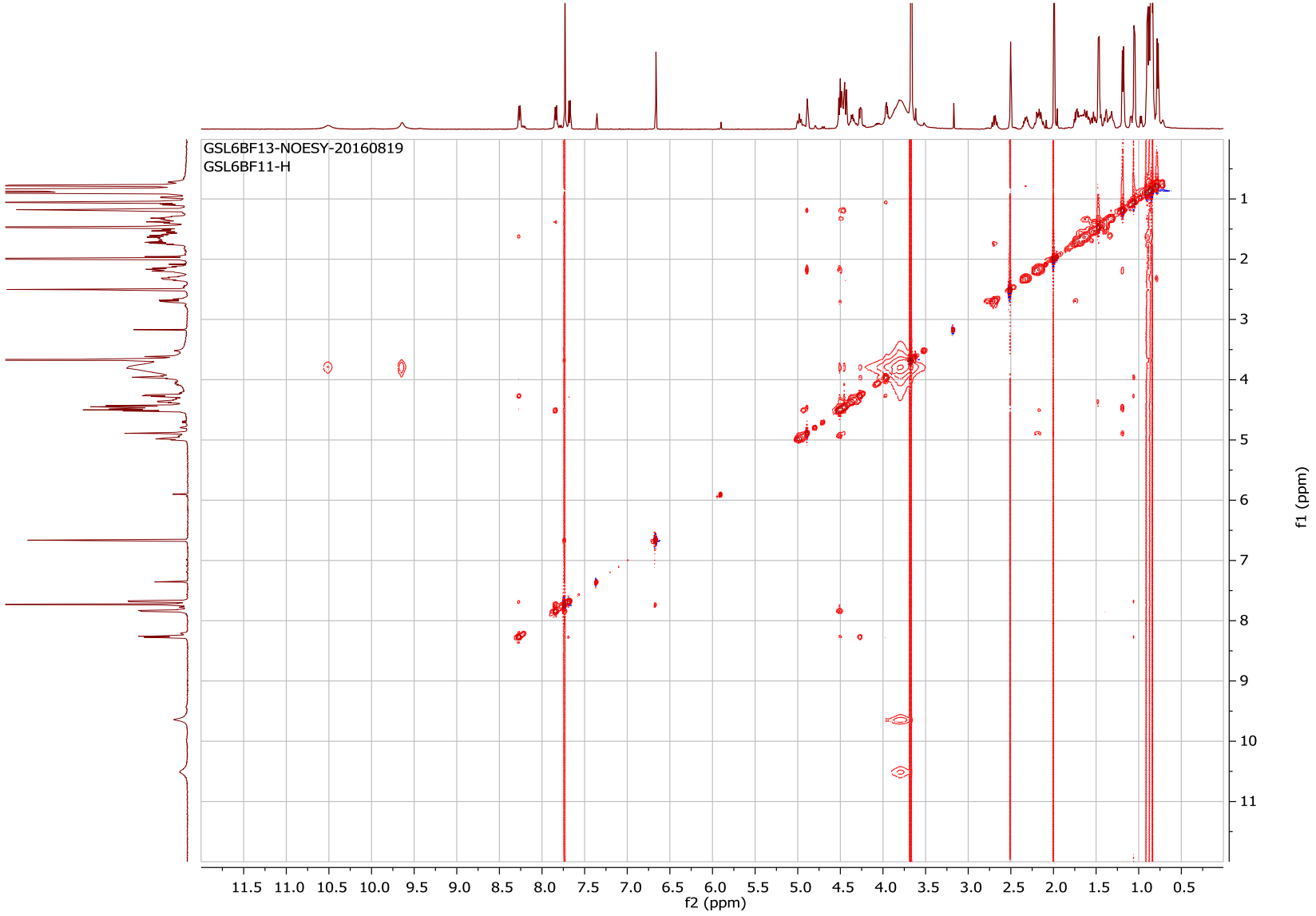


Figure S10.1D NOE spectrum of compound **1** at 4.88 ppm DMSO-d_6

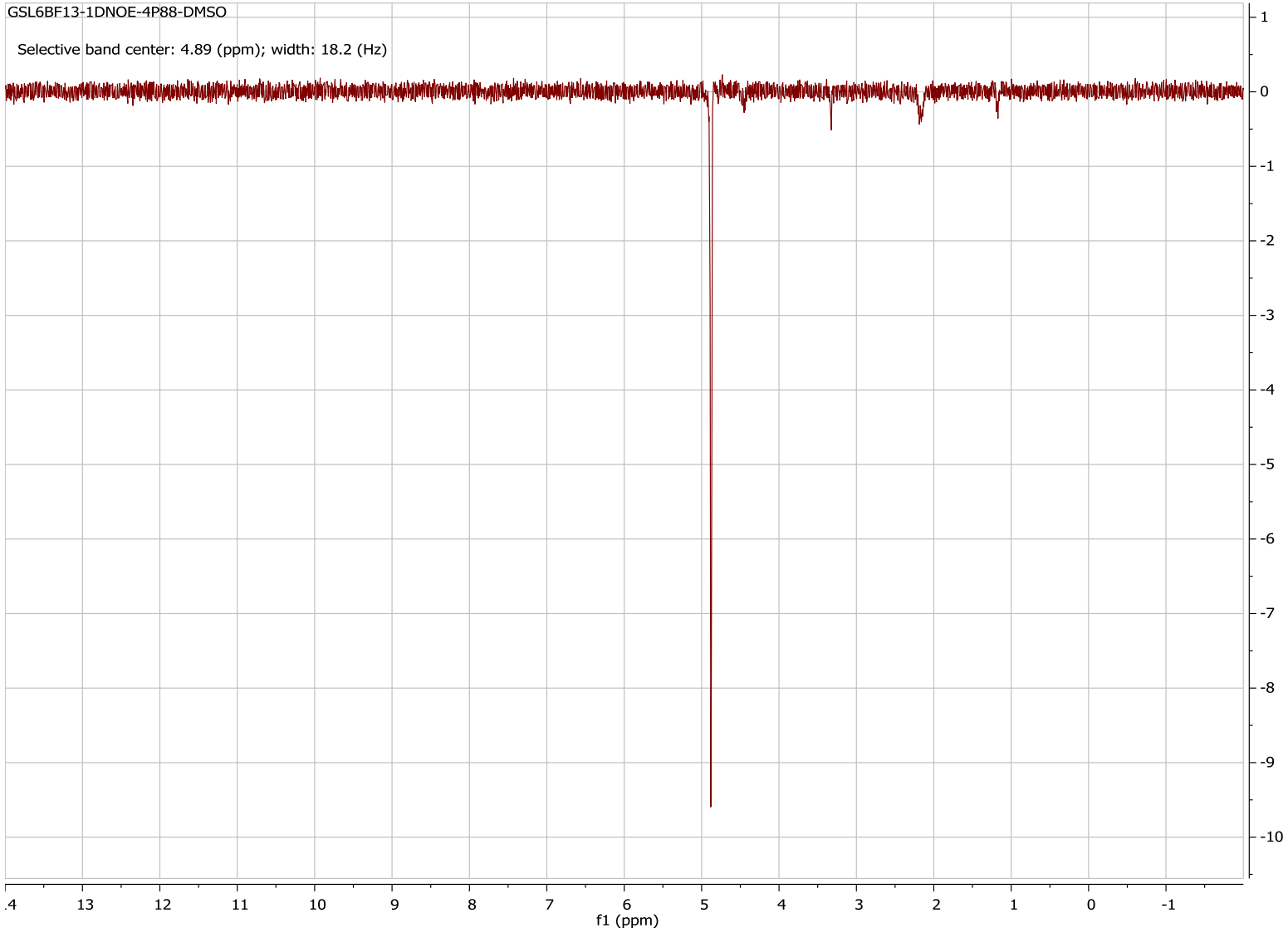


Figure S11.1D NOE spectrum of compound **1** at 4.36 ppm DMSO-d_6

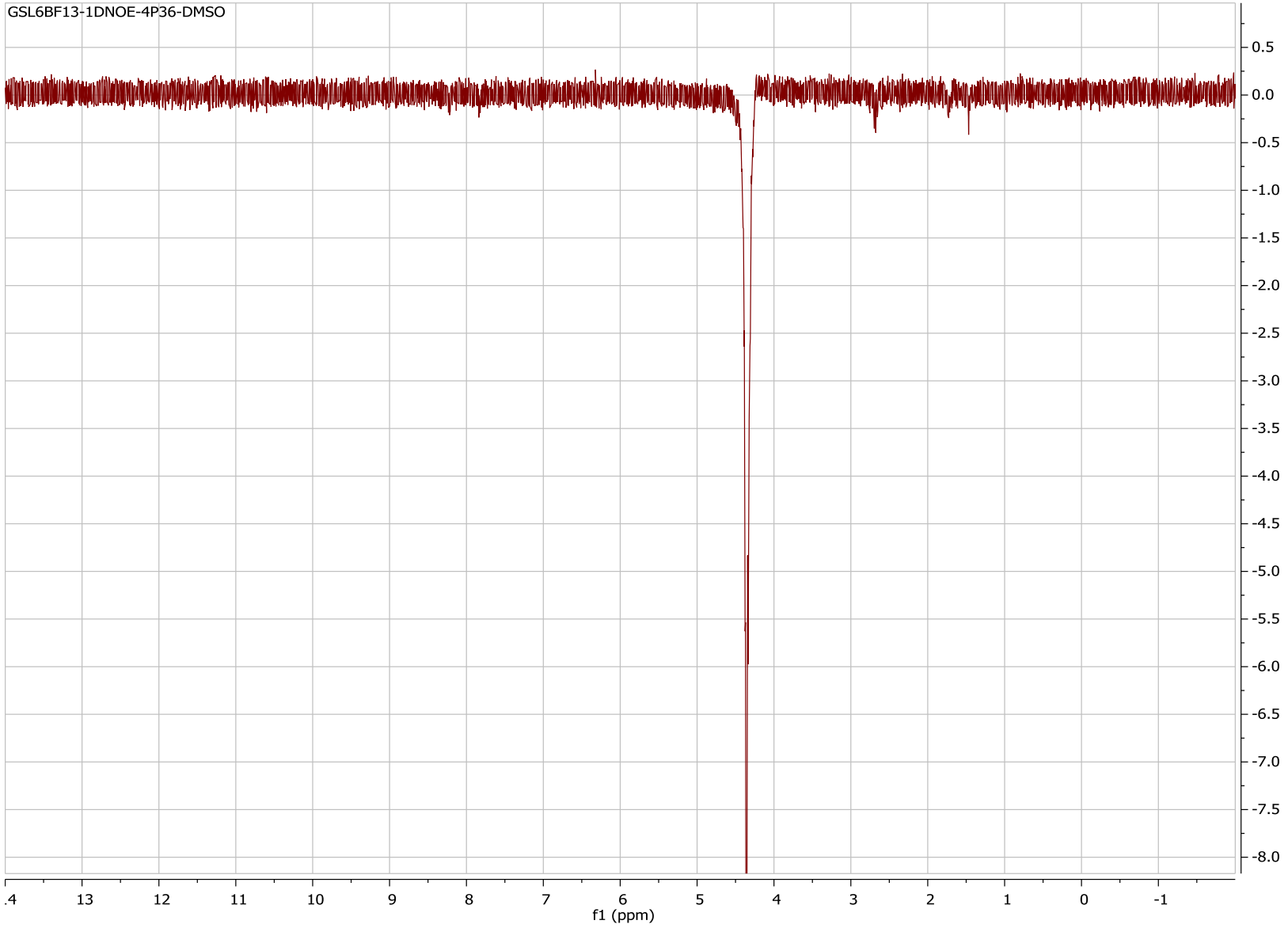


Figure S12.Main Fragment Ions Observed in the HRESIMS/MS Spectrum of compound **1**

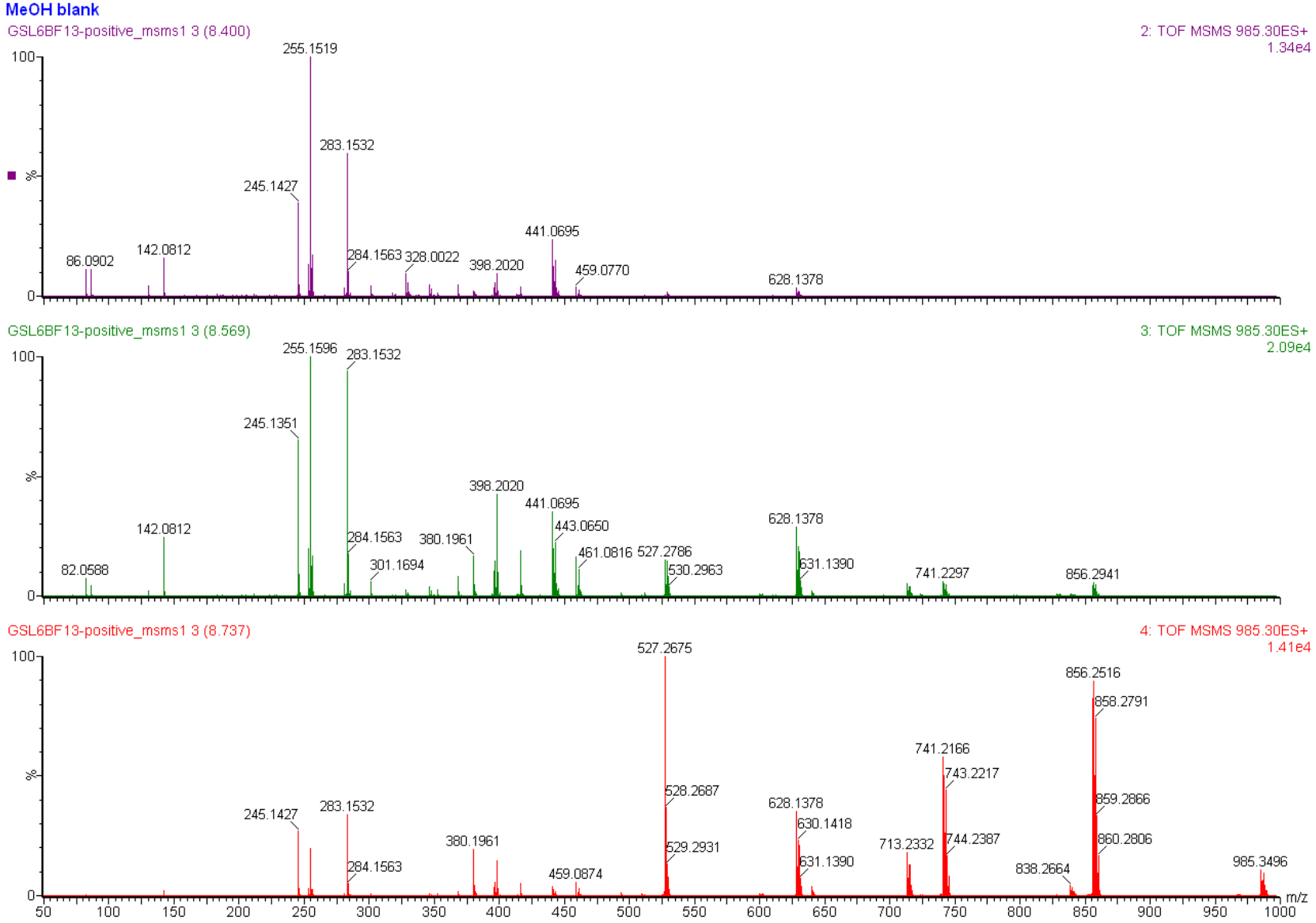


Figure S13. HR(+)ESIMS of compound **1**

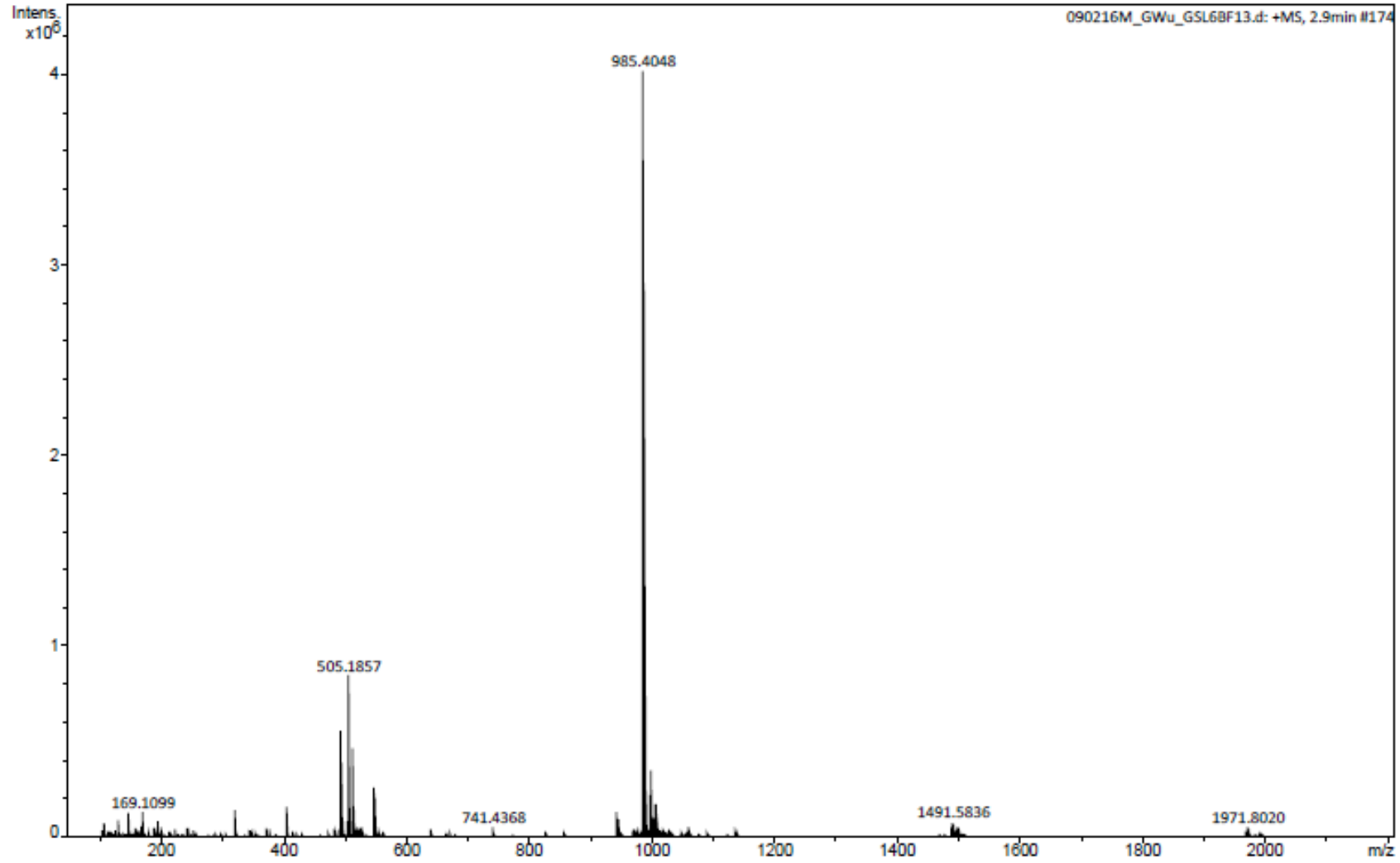


Figure S14.[1]H NMR spectrum of compound **2** in DMSO-d_6

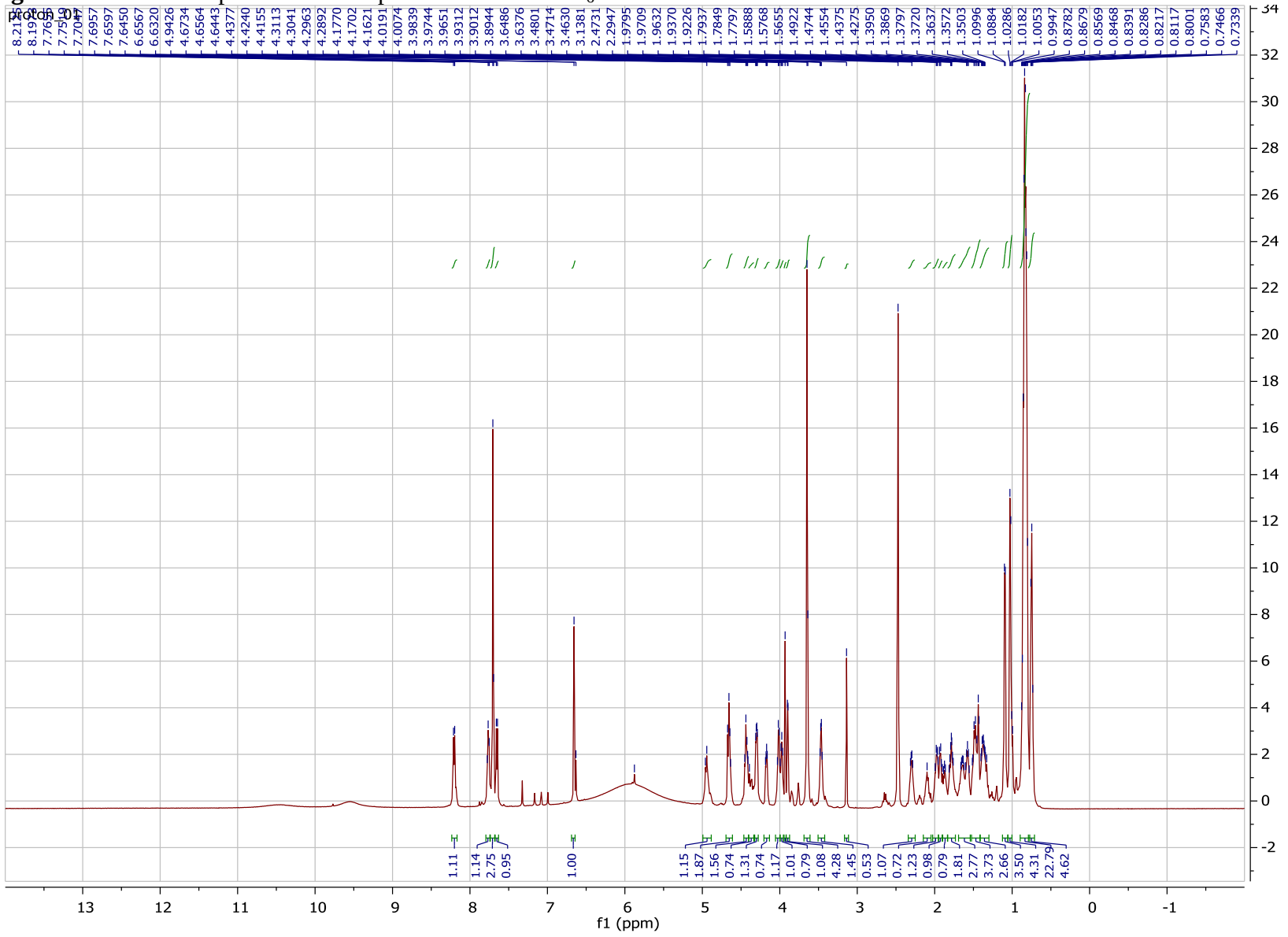
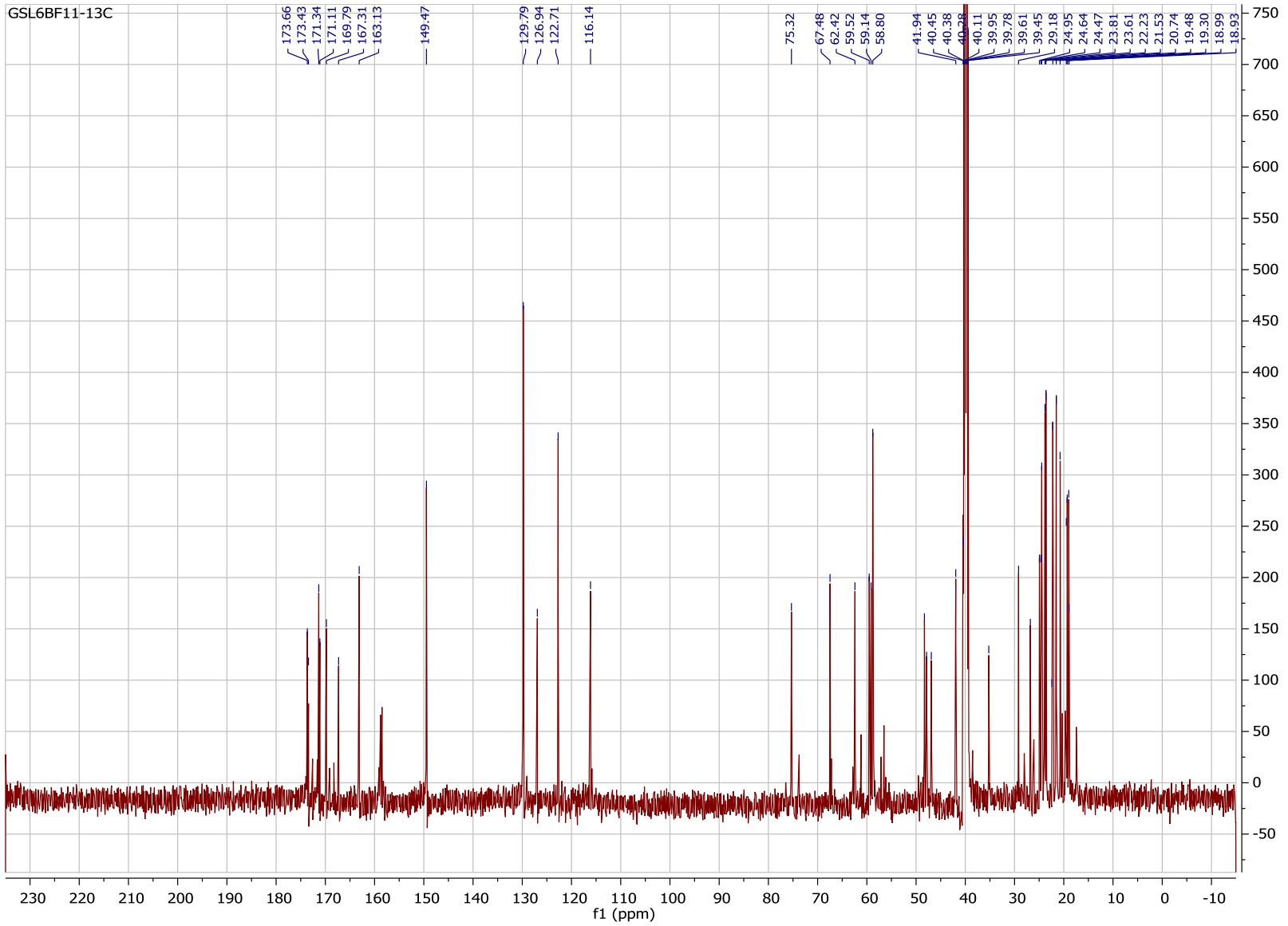
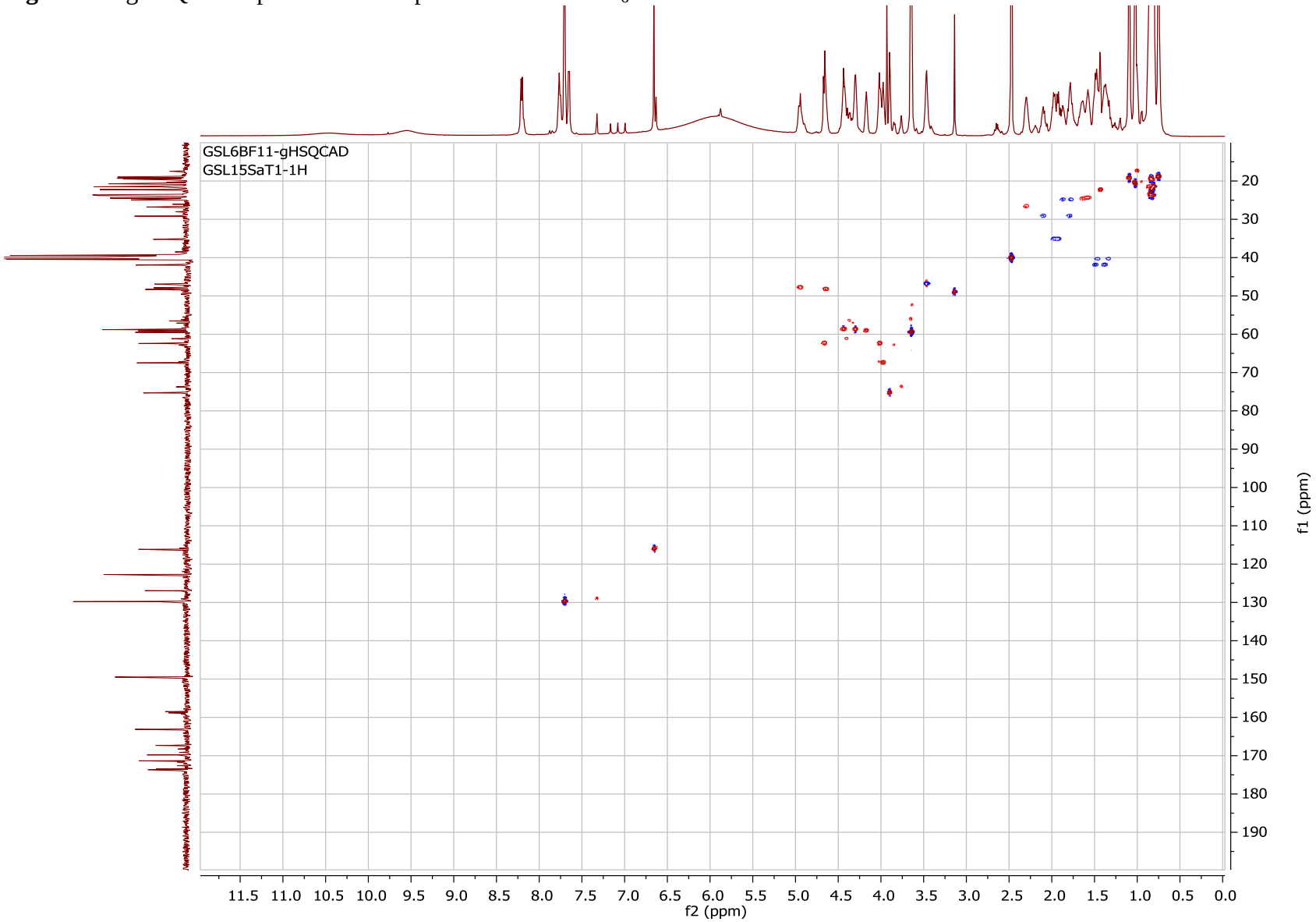


Figure S15.[13]C NMR spectrum of compound **2** in DMSO-d_6



104 **Figure S16**.gHSQCAD spectrum of compound **2** in DMSO-d_6



105
106

Figure S17.gHMBCAD spectrum of compound **2** in DMSO-d_6

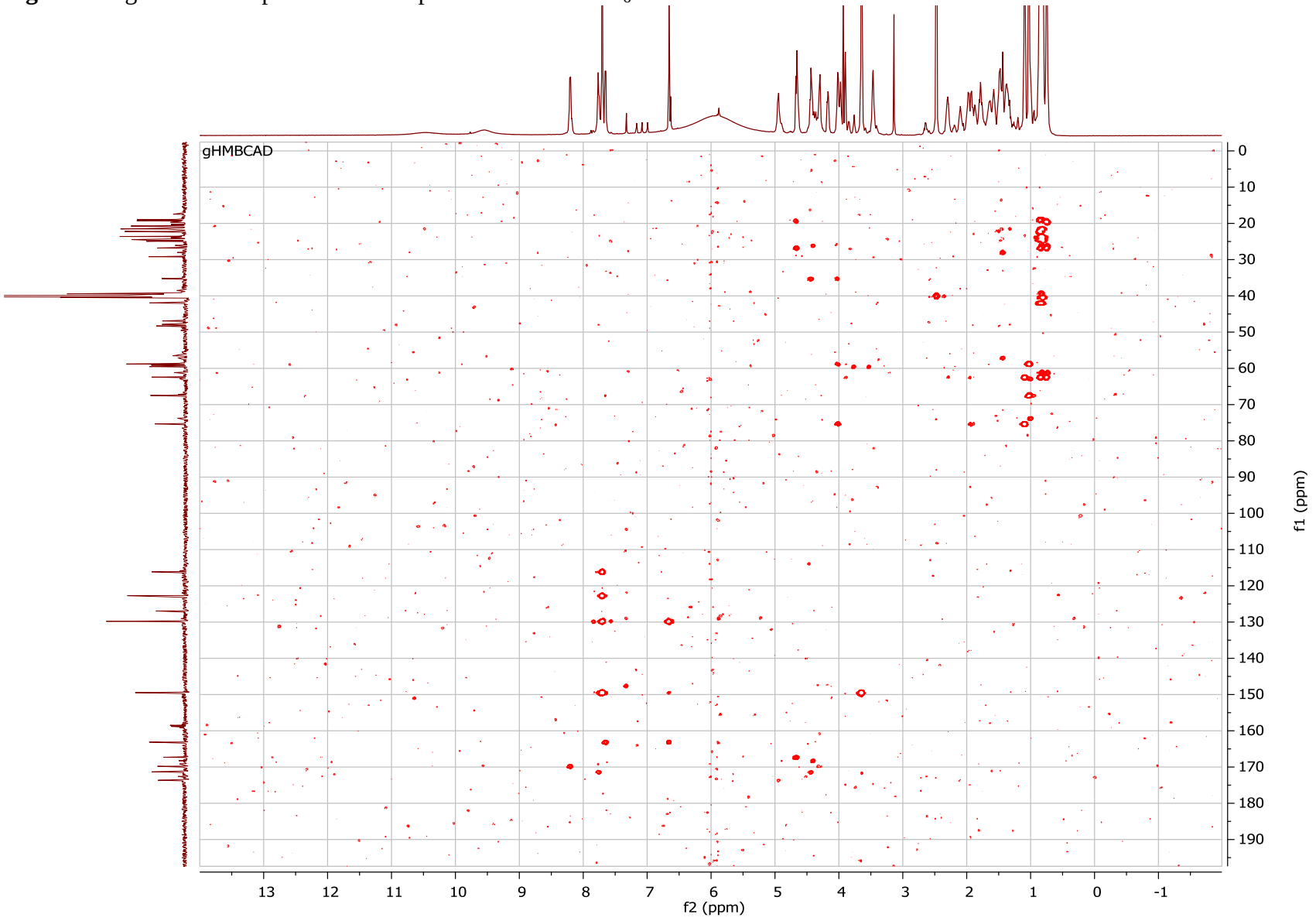
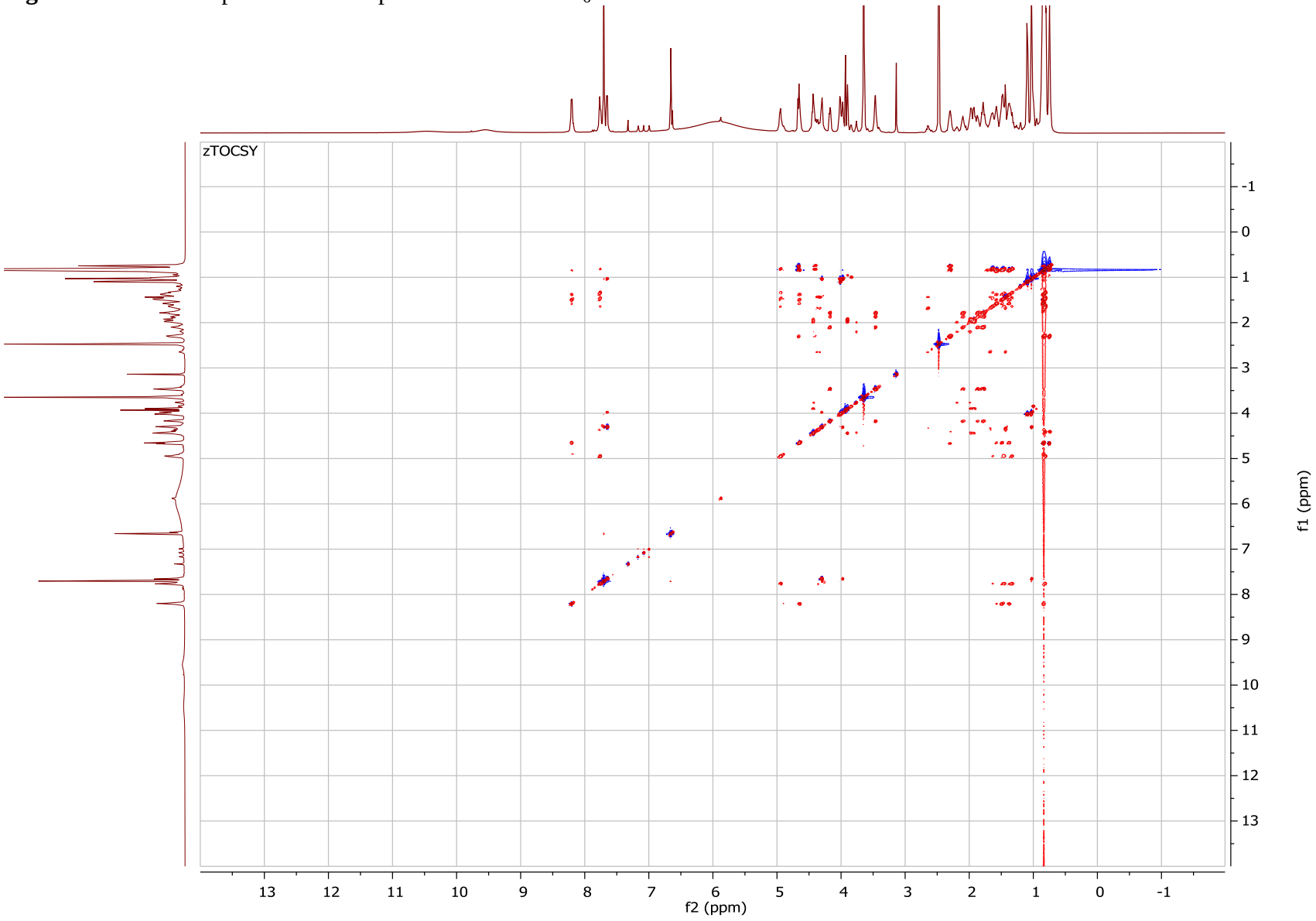
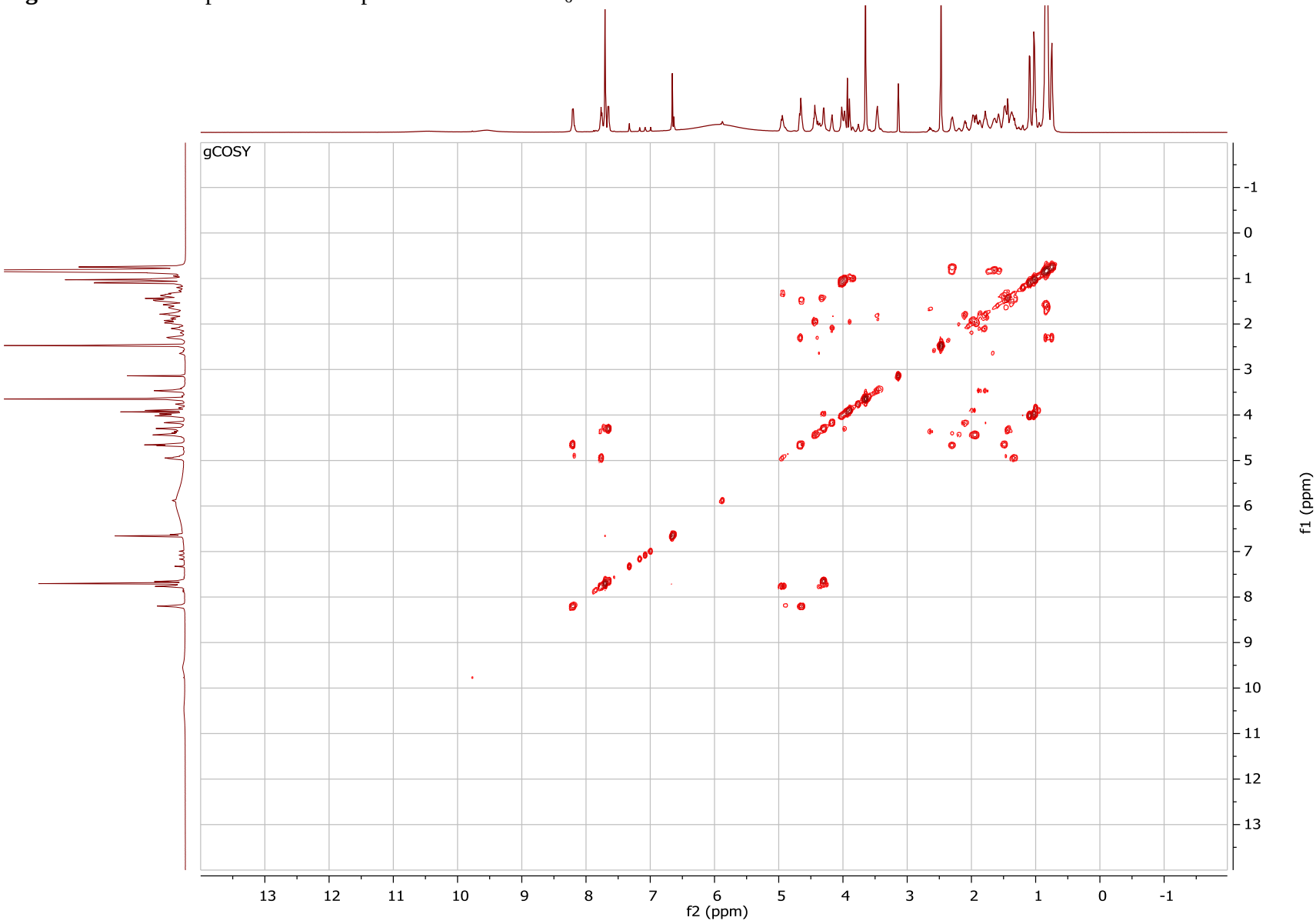


Figure S18.TOCSY spectrum of compound **2** in DMSO-d_6



111 **Figure S19**.COSY spectrum of compound **2** in DMSO-d_6



112

Figure S20. ROESY spectrum of compound **2** in DMSO-d_6

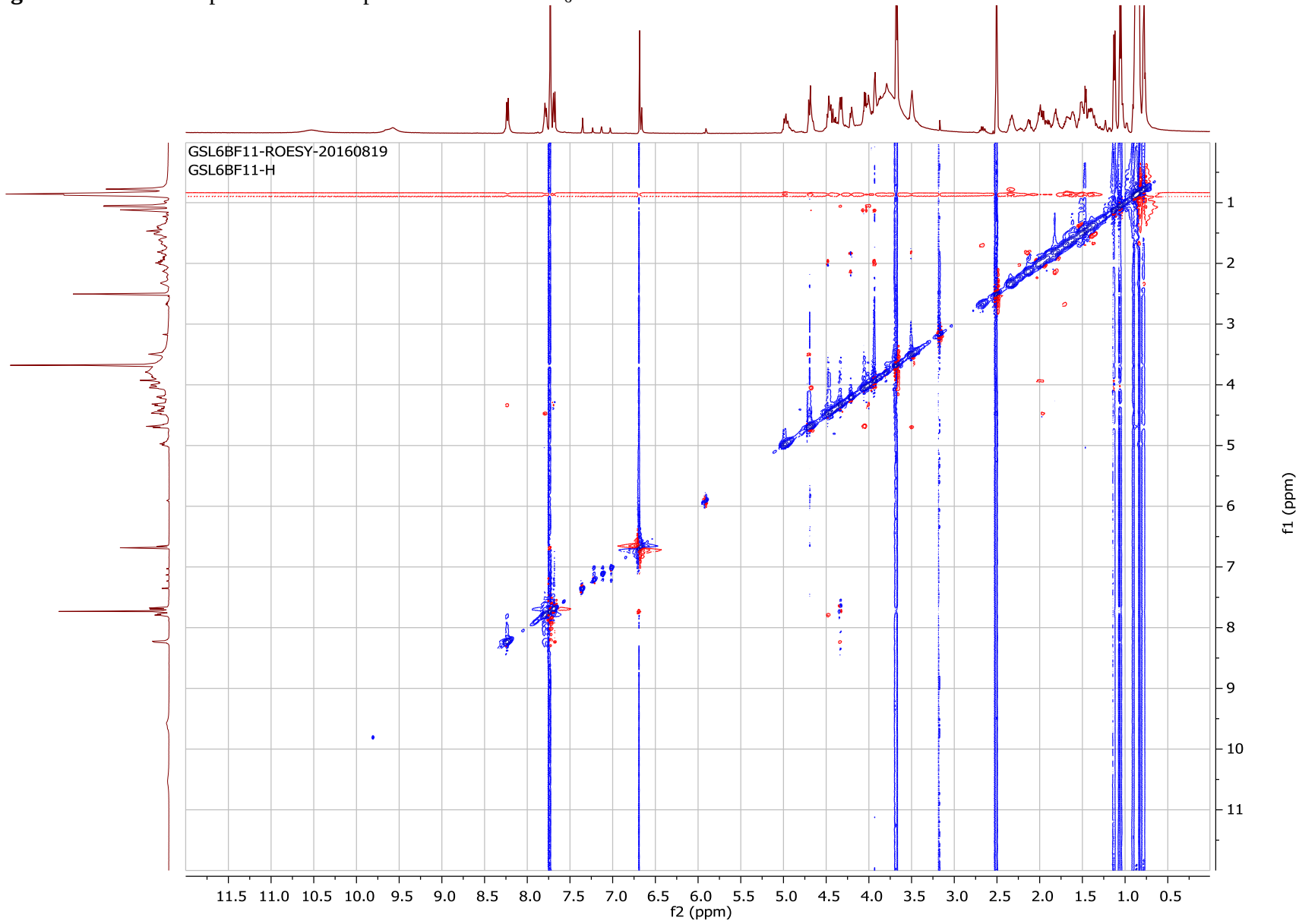


Figure S21.NOESY spectrum of compound **2** in DMSO-d_6

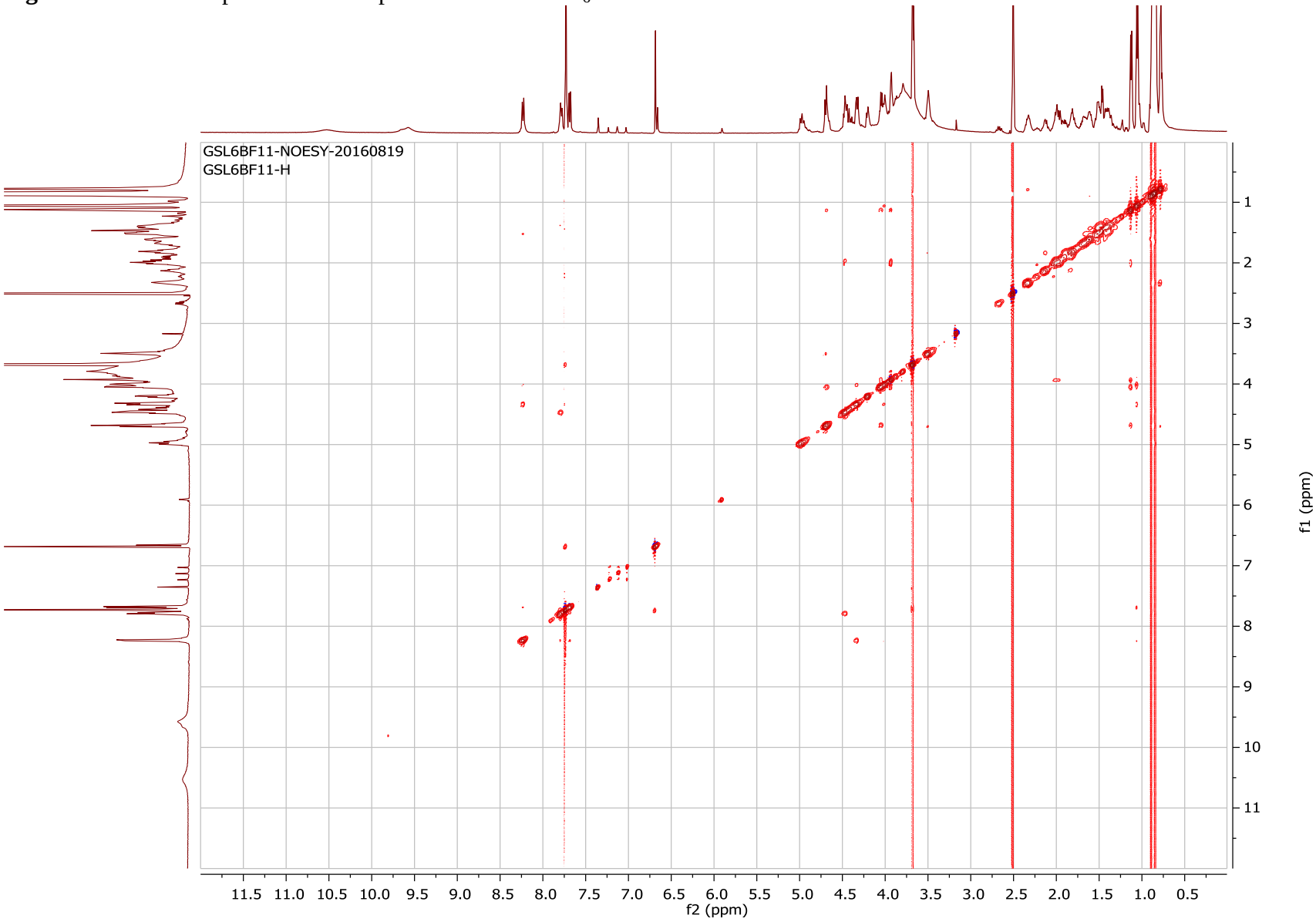


Figure S22.1D NOE spectrum of compound **2** at 3.92 ppm DMSO-d_6

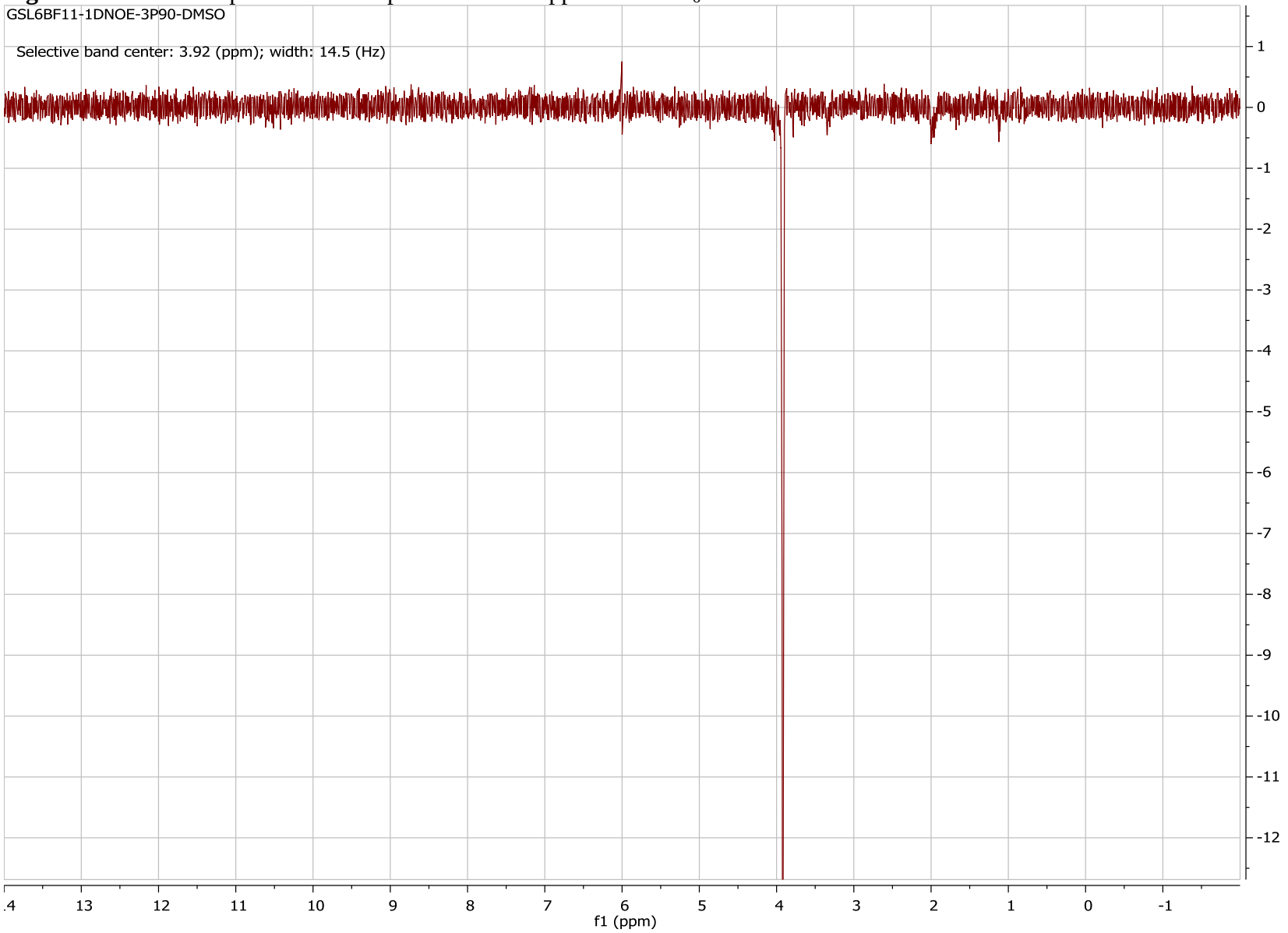


Figure S23.Main fragment ions observed in the HRESIMS/MS Spectrum of compound **2**

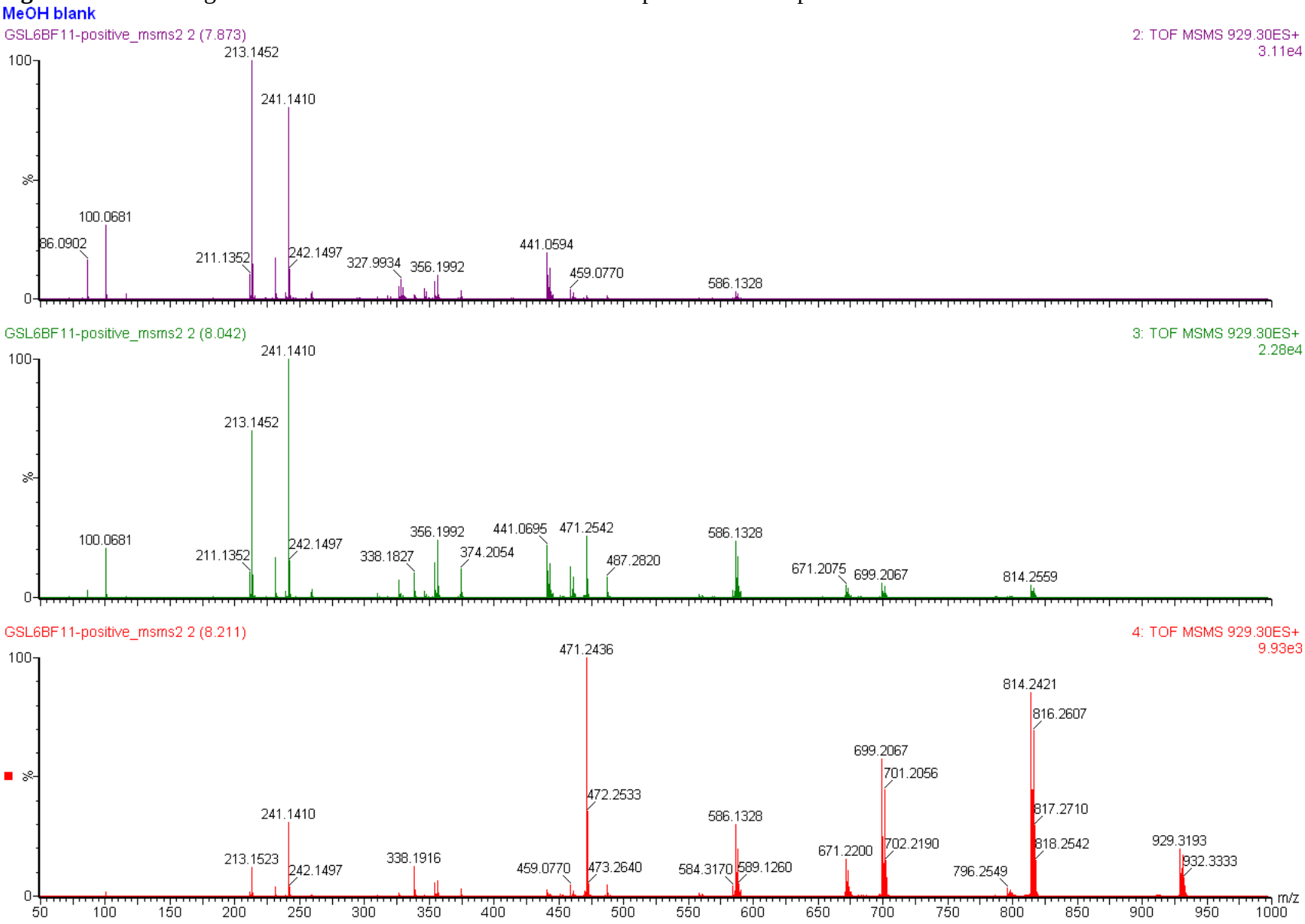


Figure S24. HR(+)ESIMS of compound **2**

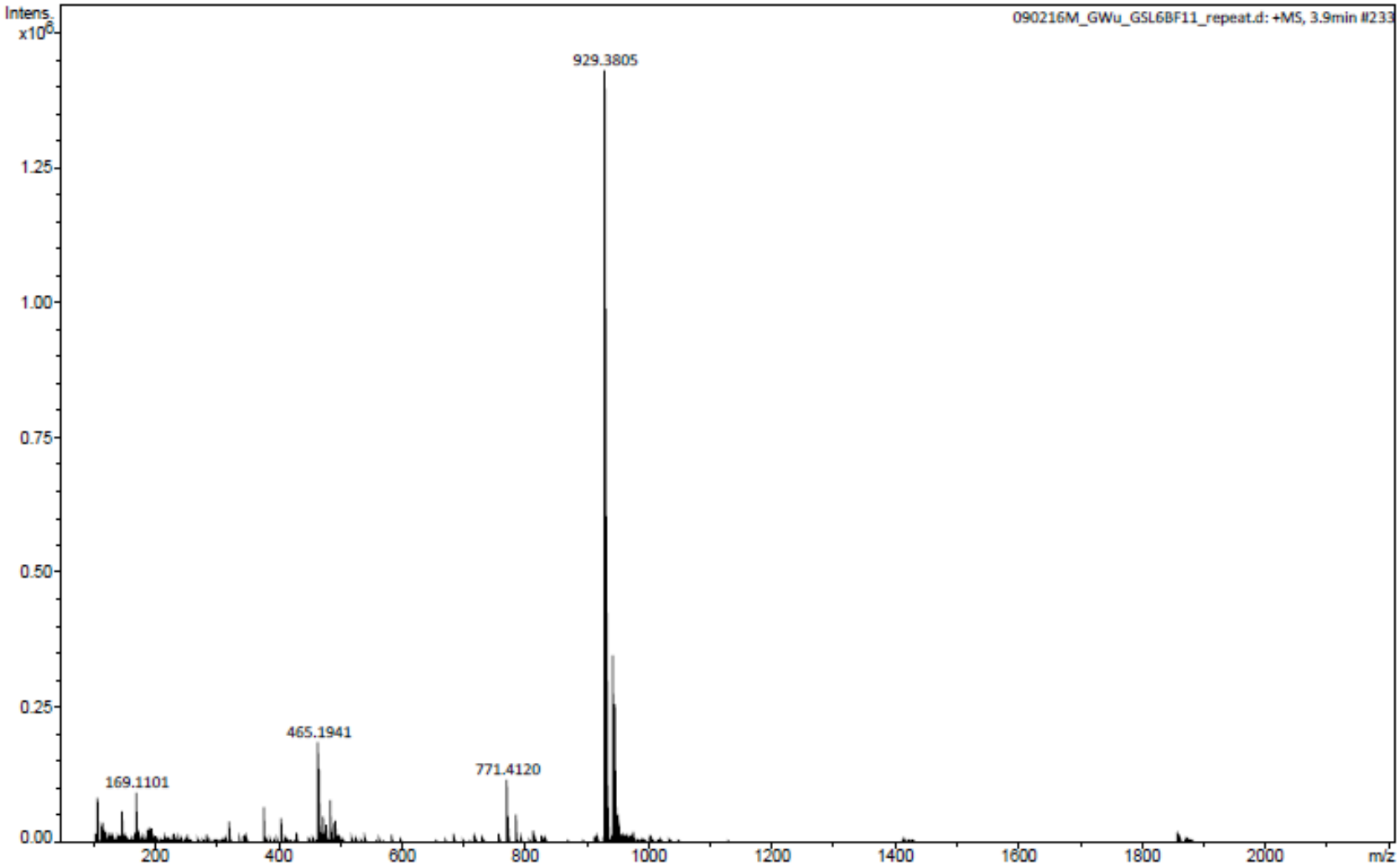


Figure S25.[1]H NMR spectrum of compound **3** in DMSO-d_6

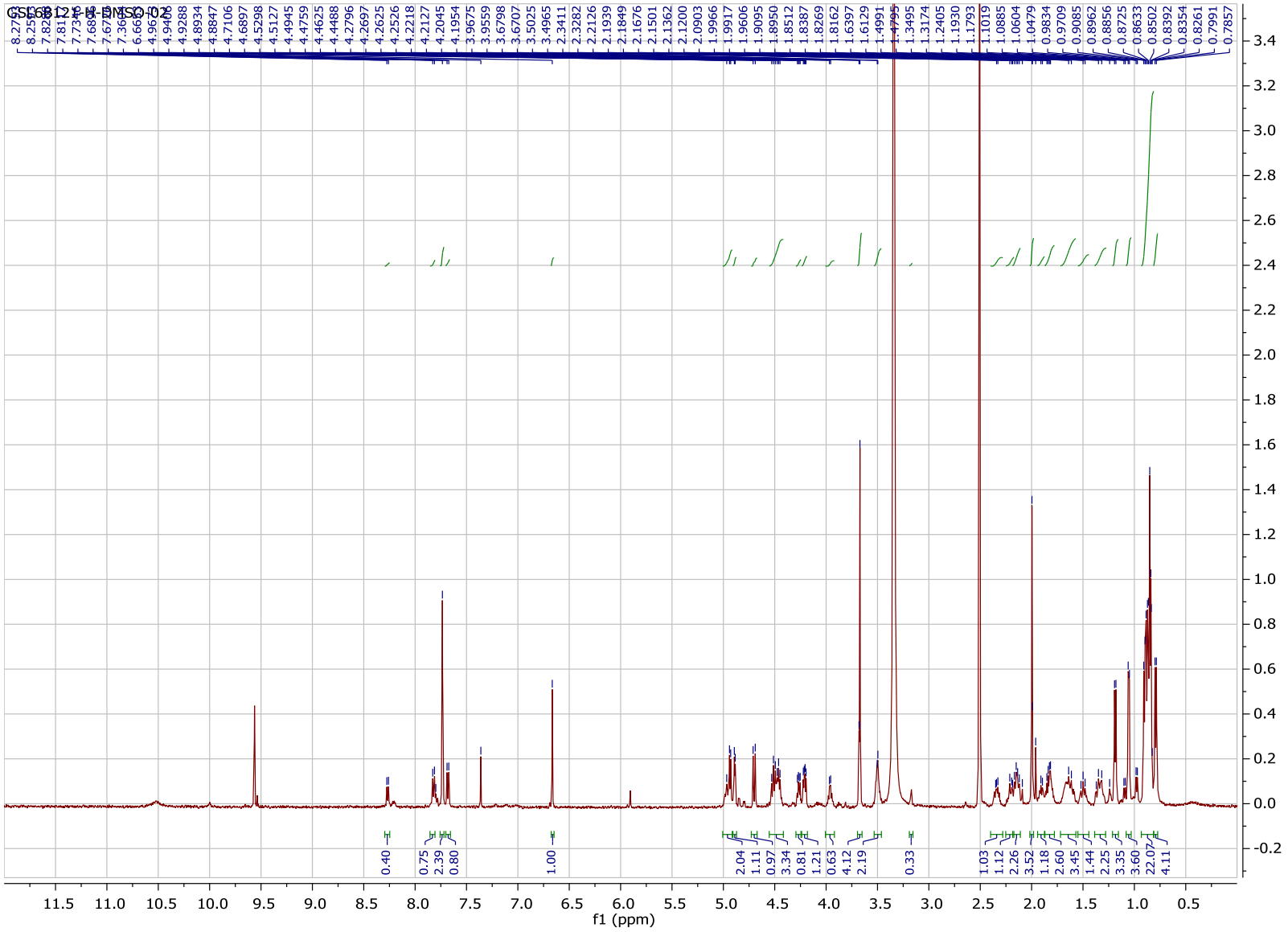


Figure S26. gHSQCAD spectrum of compound **3** in DMSO-d_6

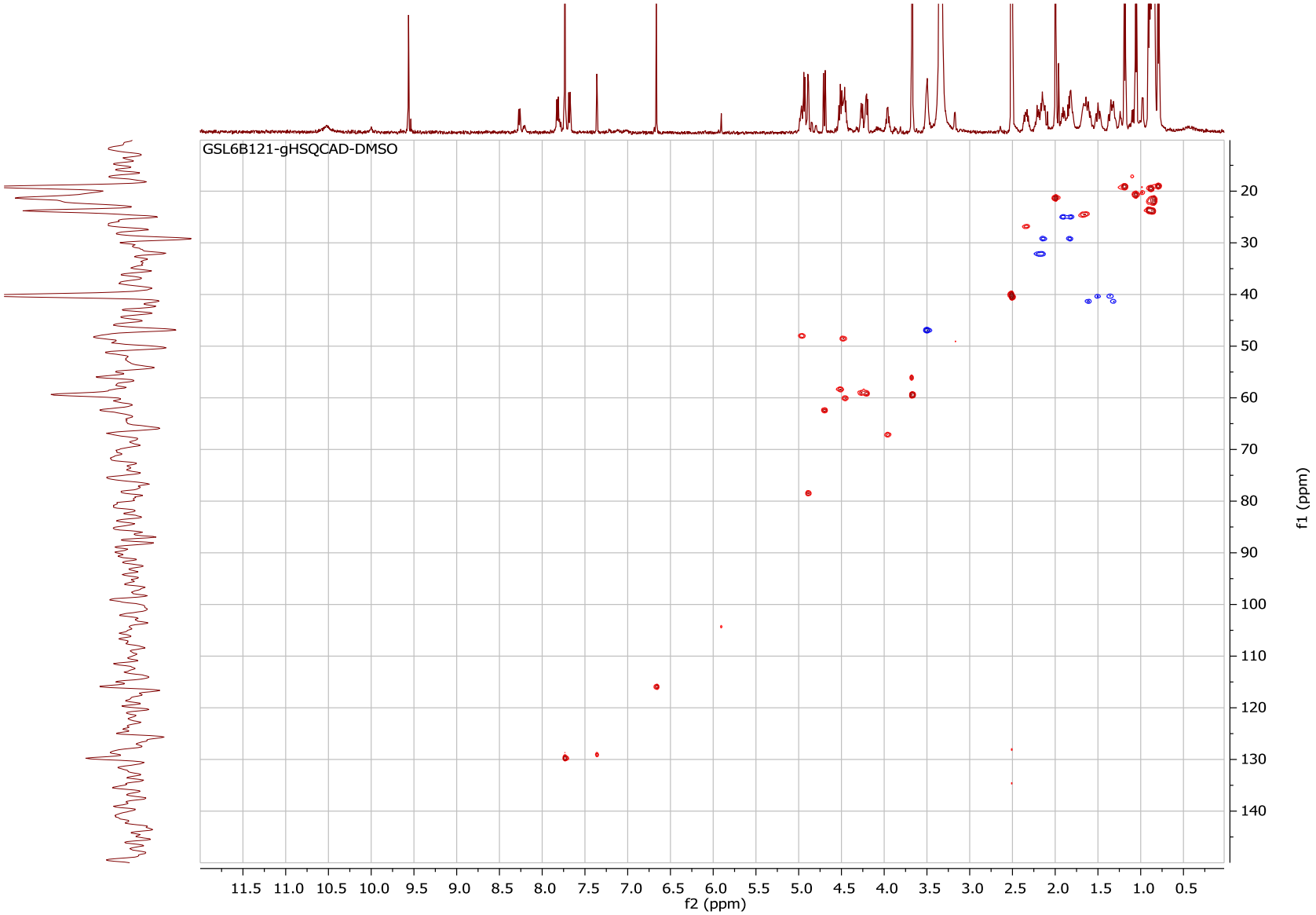


Figure S27.gHMBCAD spectrum of compound **3** in DMSO-d_6

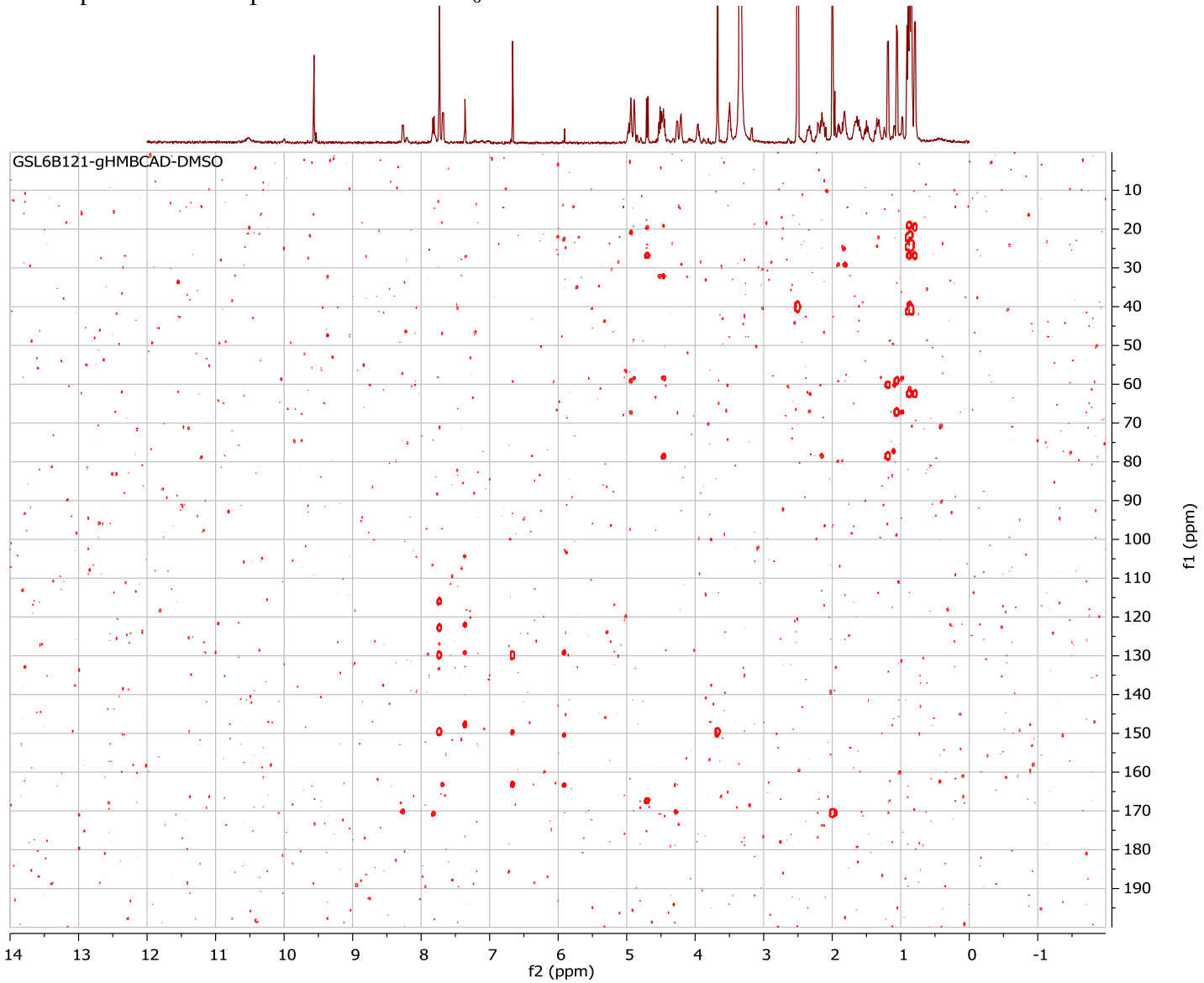


Figure S28. TOCSY spectrum of compound **3** in DMSO-d_6

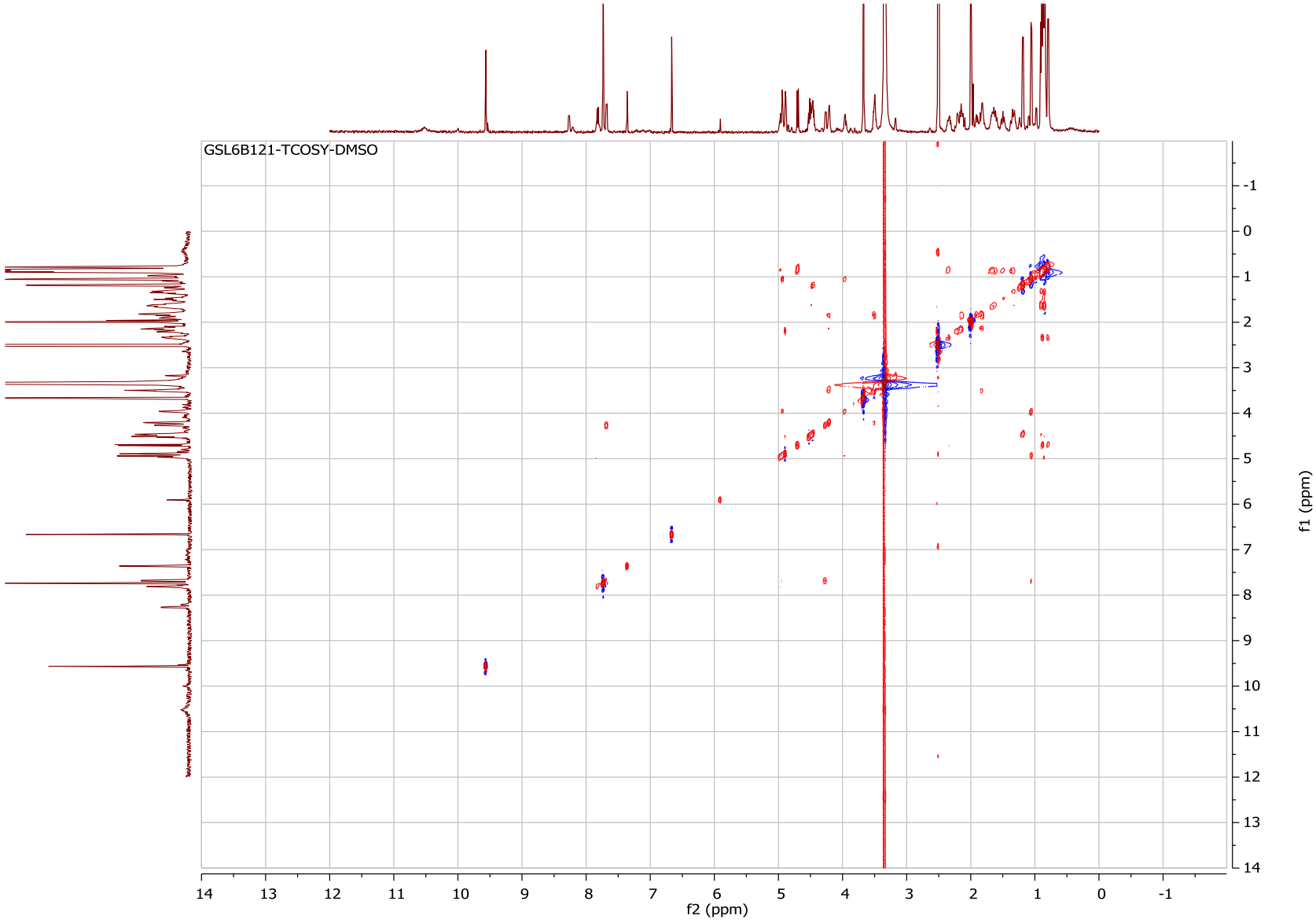


Figure S29.COSY spectrum of compound **3** in DMSO-d_6

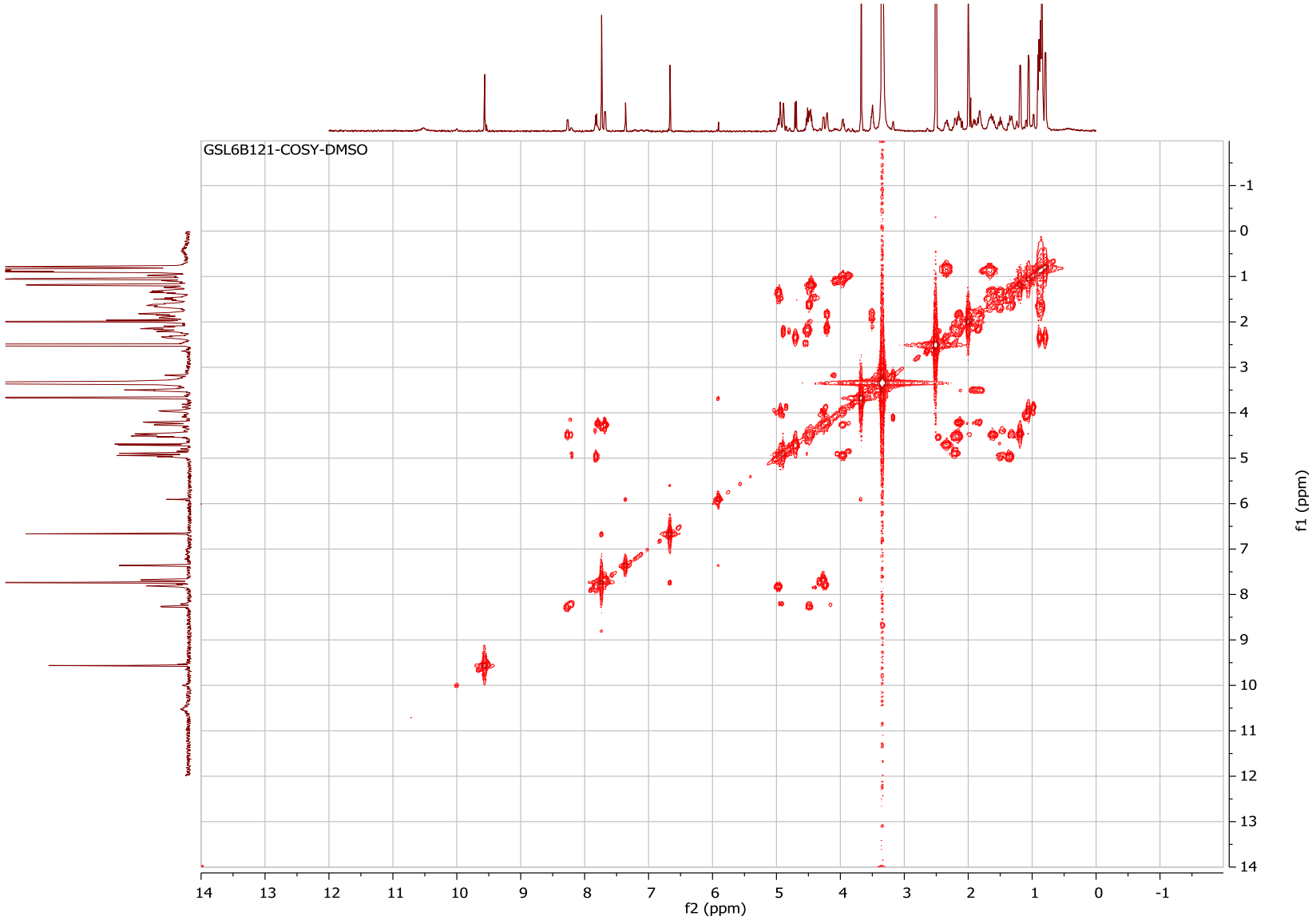


Figure S30. ROESY spectrum of compound **3** in DMSO-d_6

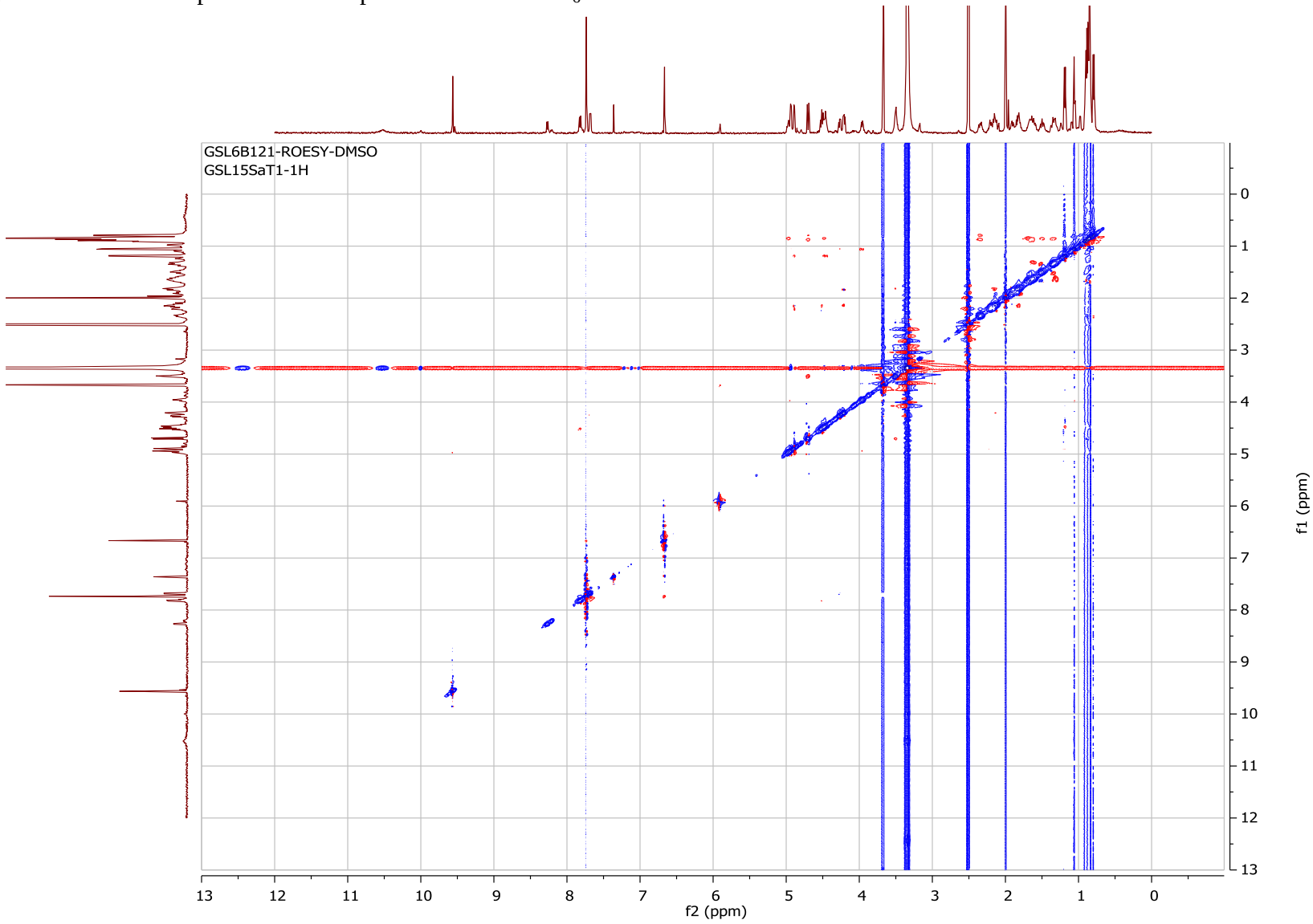


Figure S31.NOESY spectrum of compound **3** in DMSO-d_6

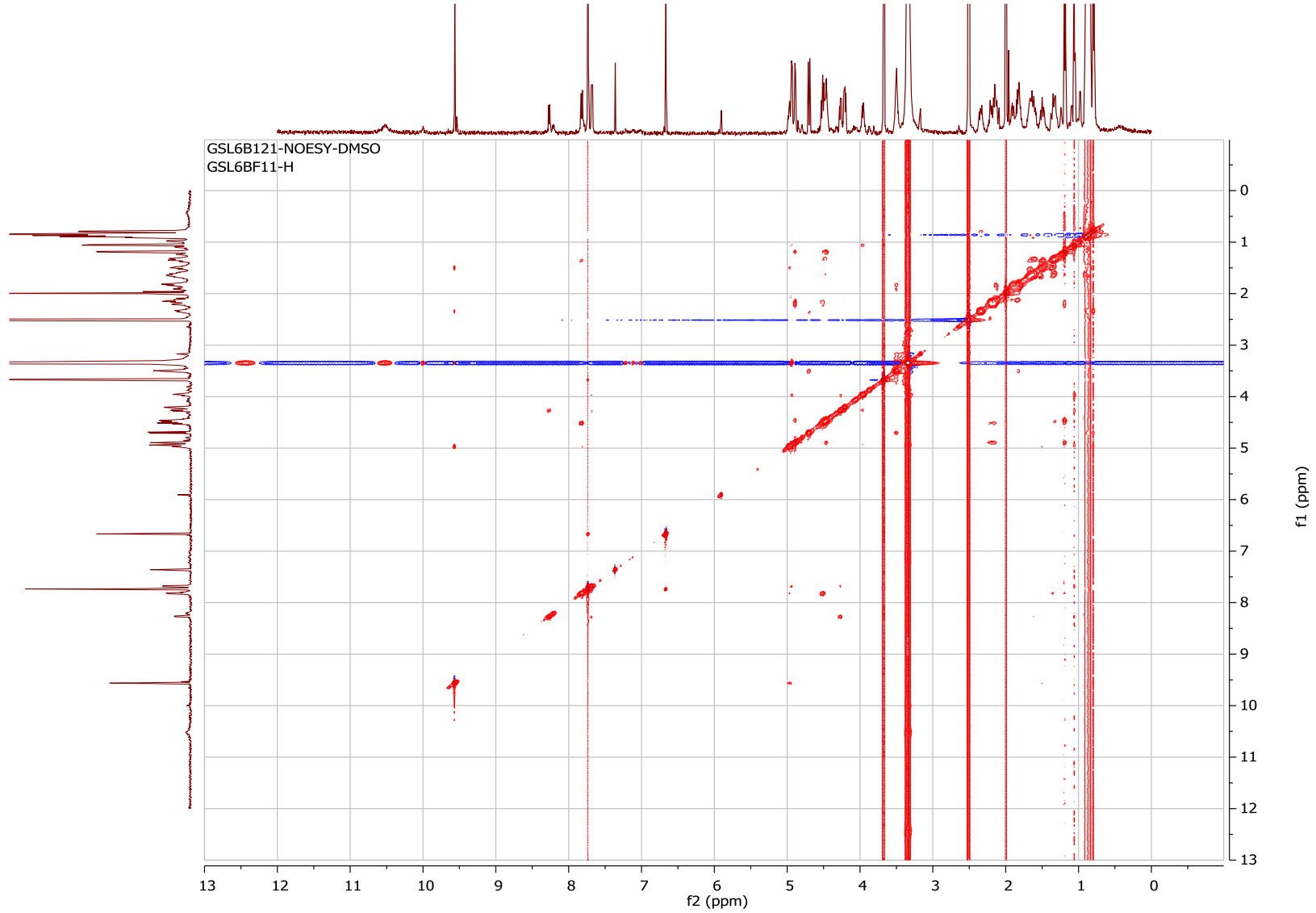


Figure S32. HR(+)ESIMS of compound **3**

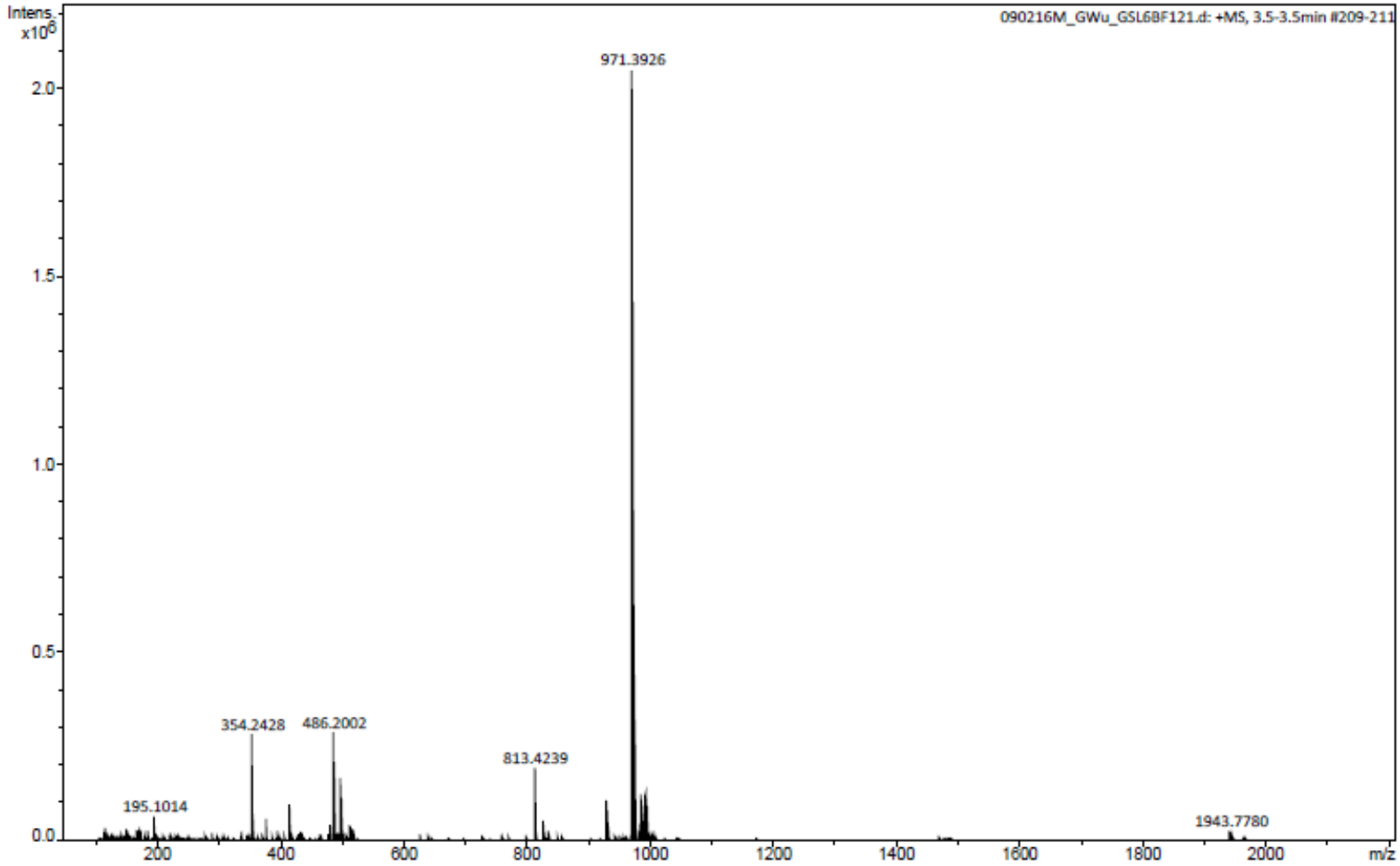
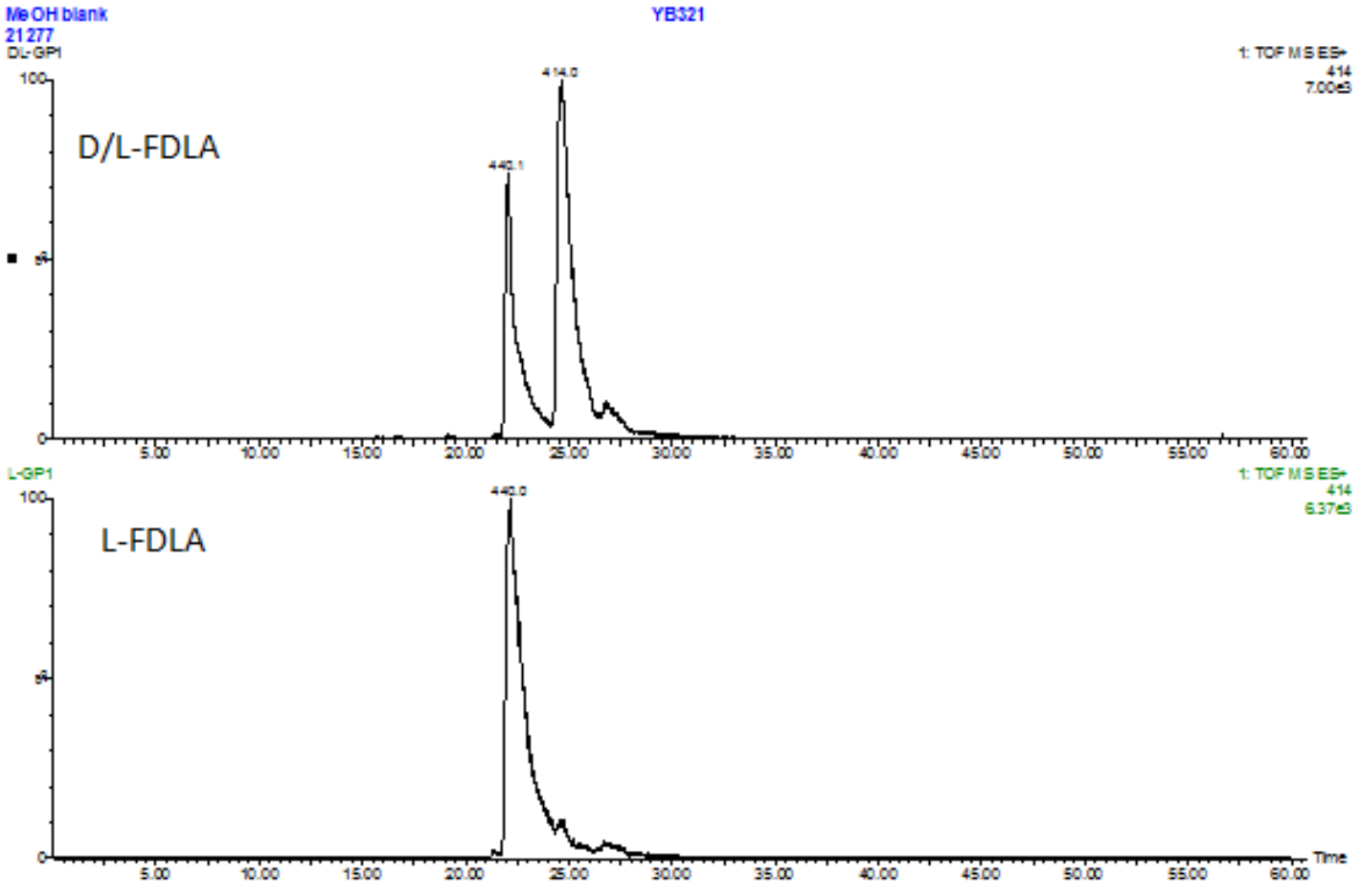
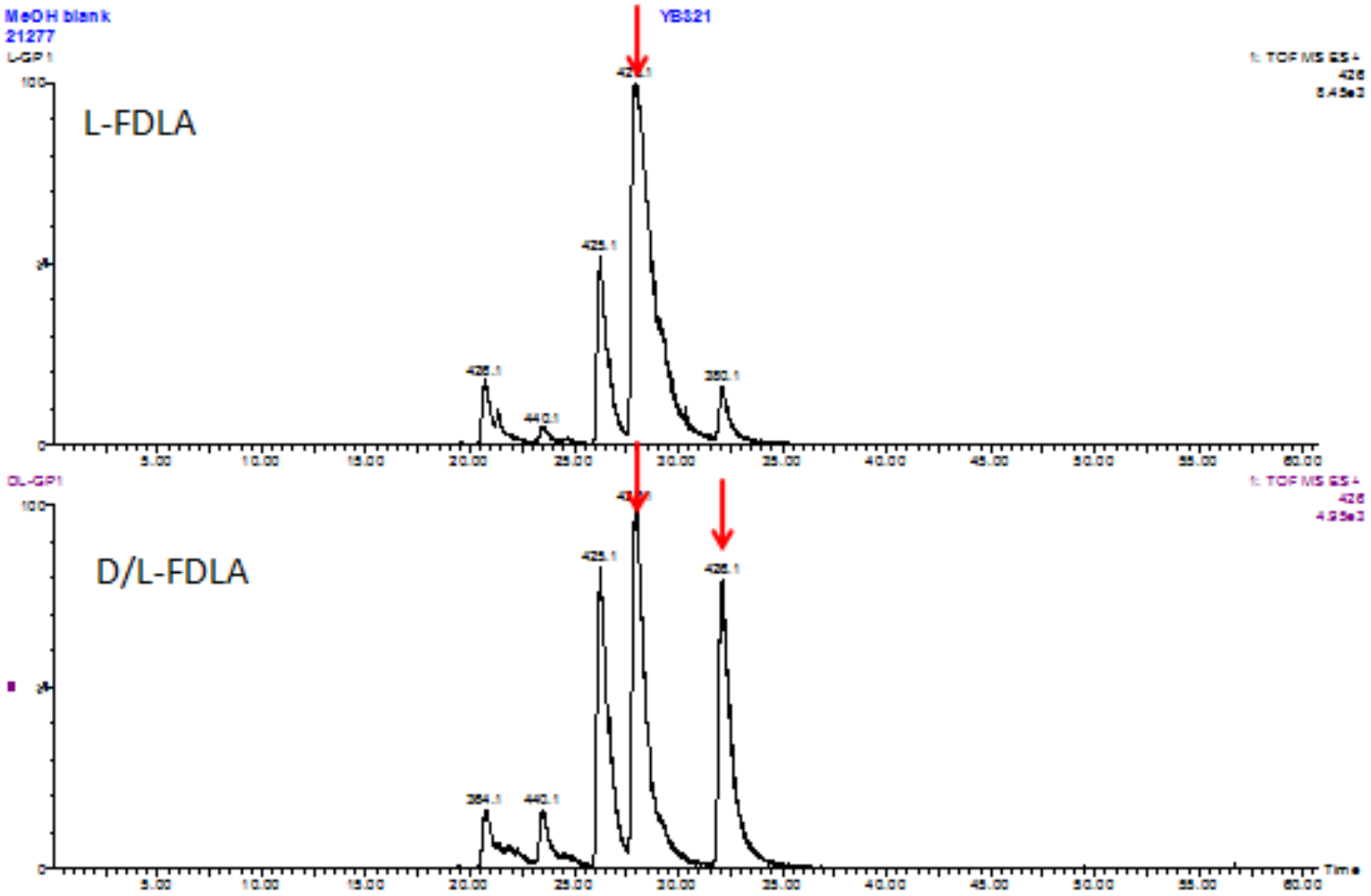


Figure S33.Advanced Marfey's analysis of acid hydrolysate of **1**

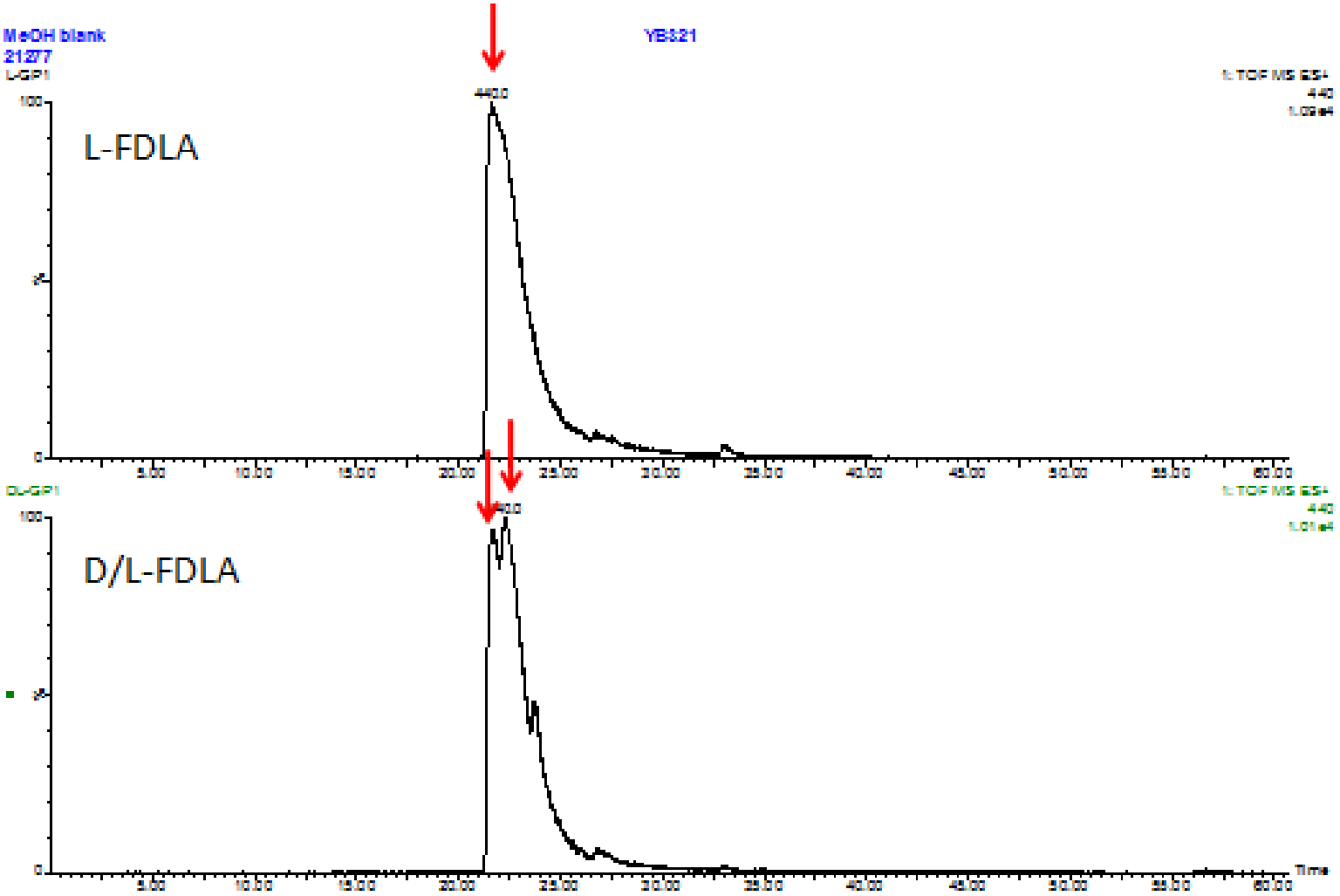
A)D,L-FDLA-Threonine derivatives in **1**: 414 $[M+H]^+$



B)D,L-FDLA-Leucine derivatives in **1**: 426 $[M+H]^+$



C)D,L-FDLA-HMP derivatives in **1**: 440 $[M+H]^+$



D)D,L-FDLA-Valine derivatives in **1**: 434 $[M+Na]^+$

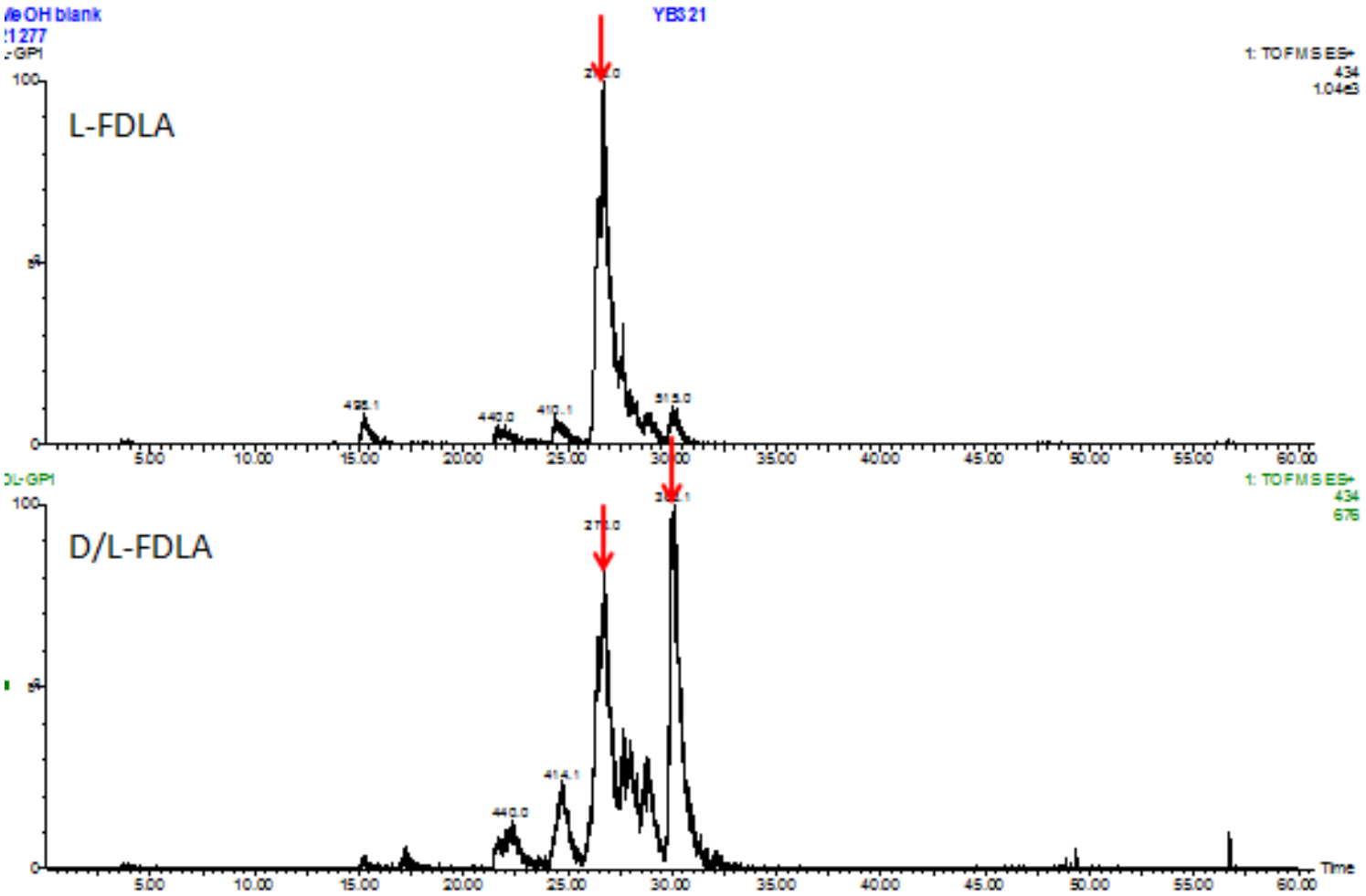
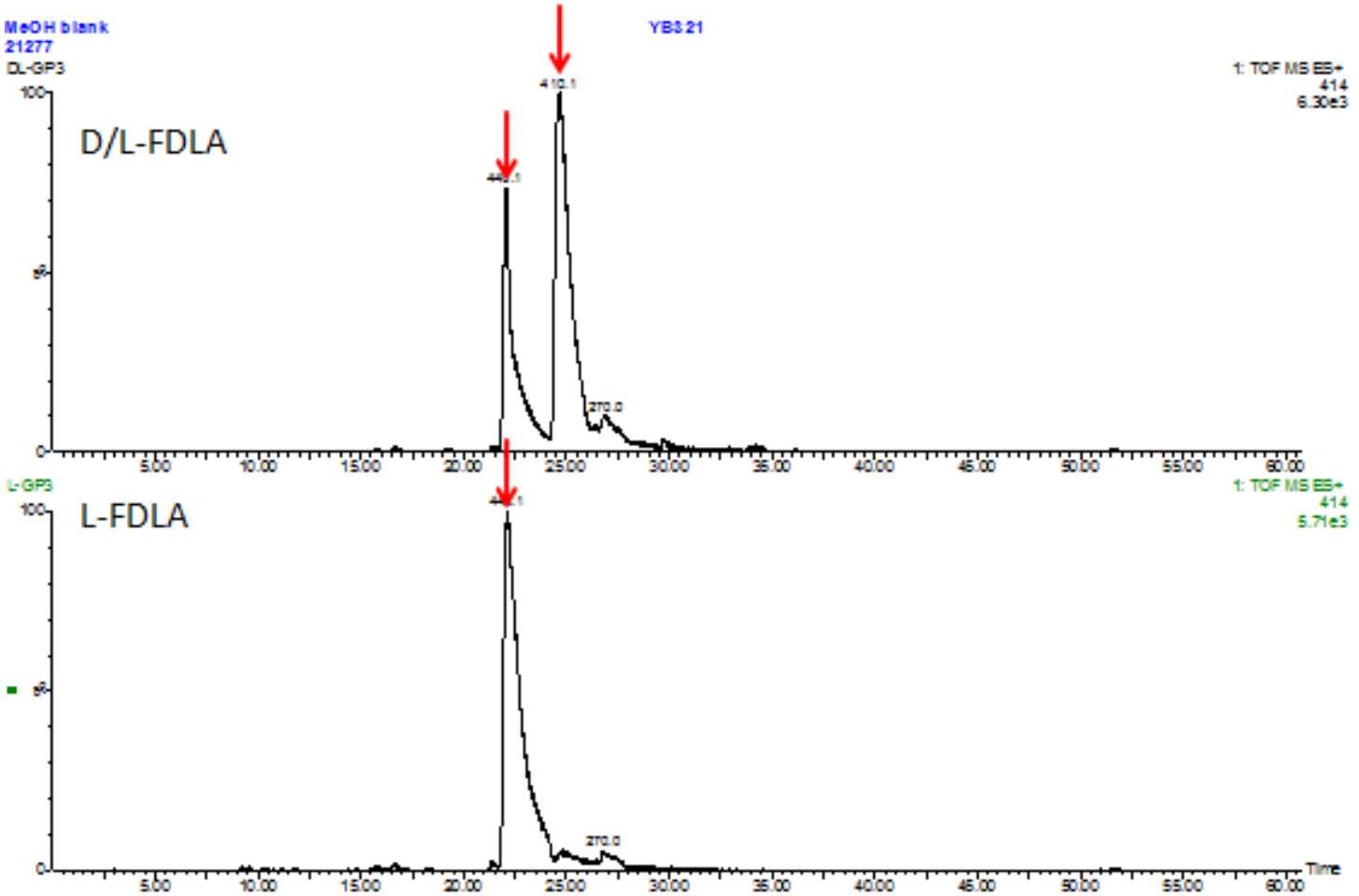
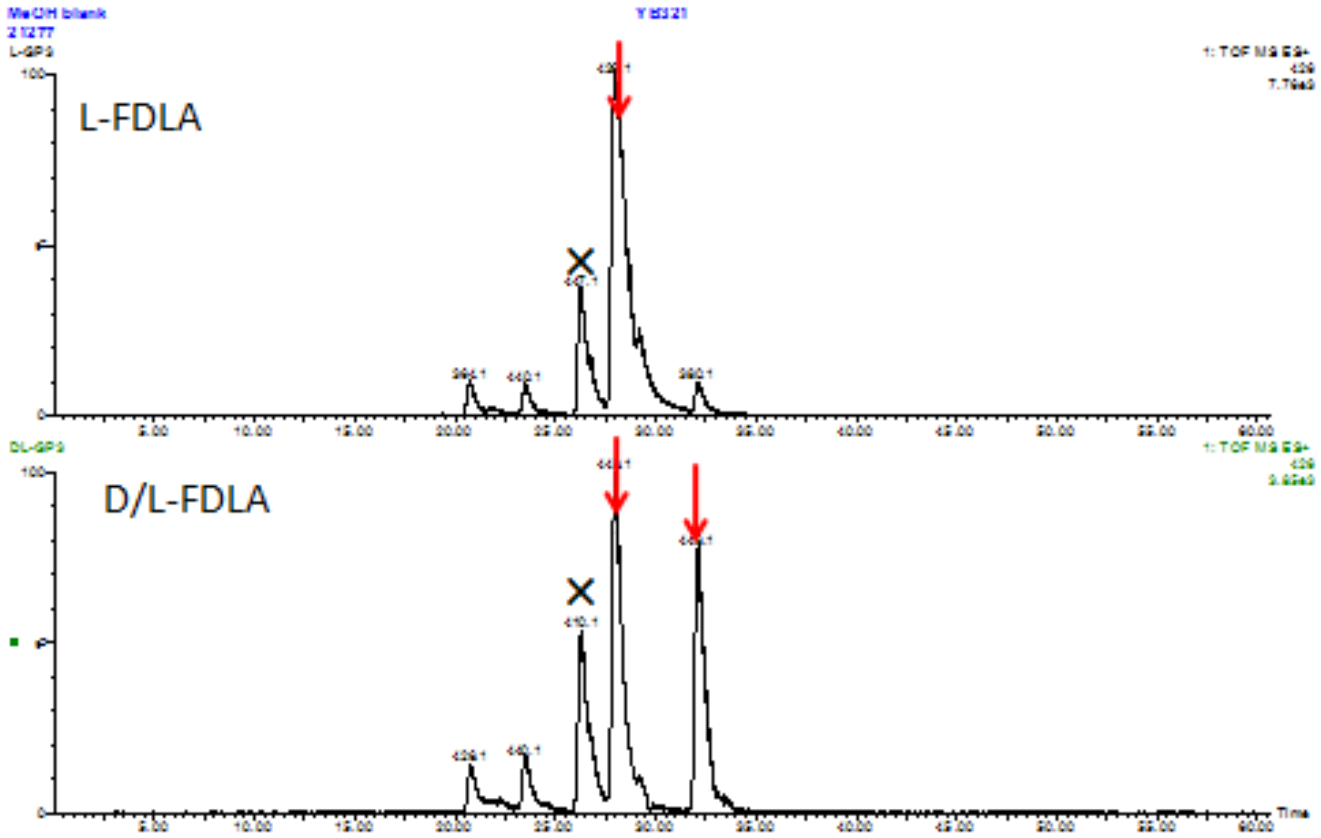


Figure S34.Advanced Marfey's analysis of acid hydrolysate of **2**

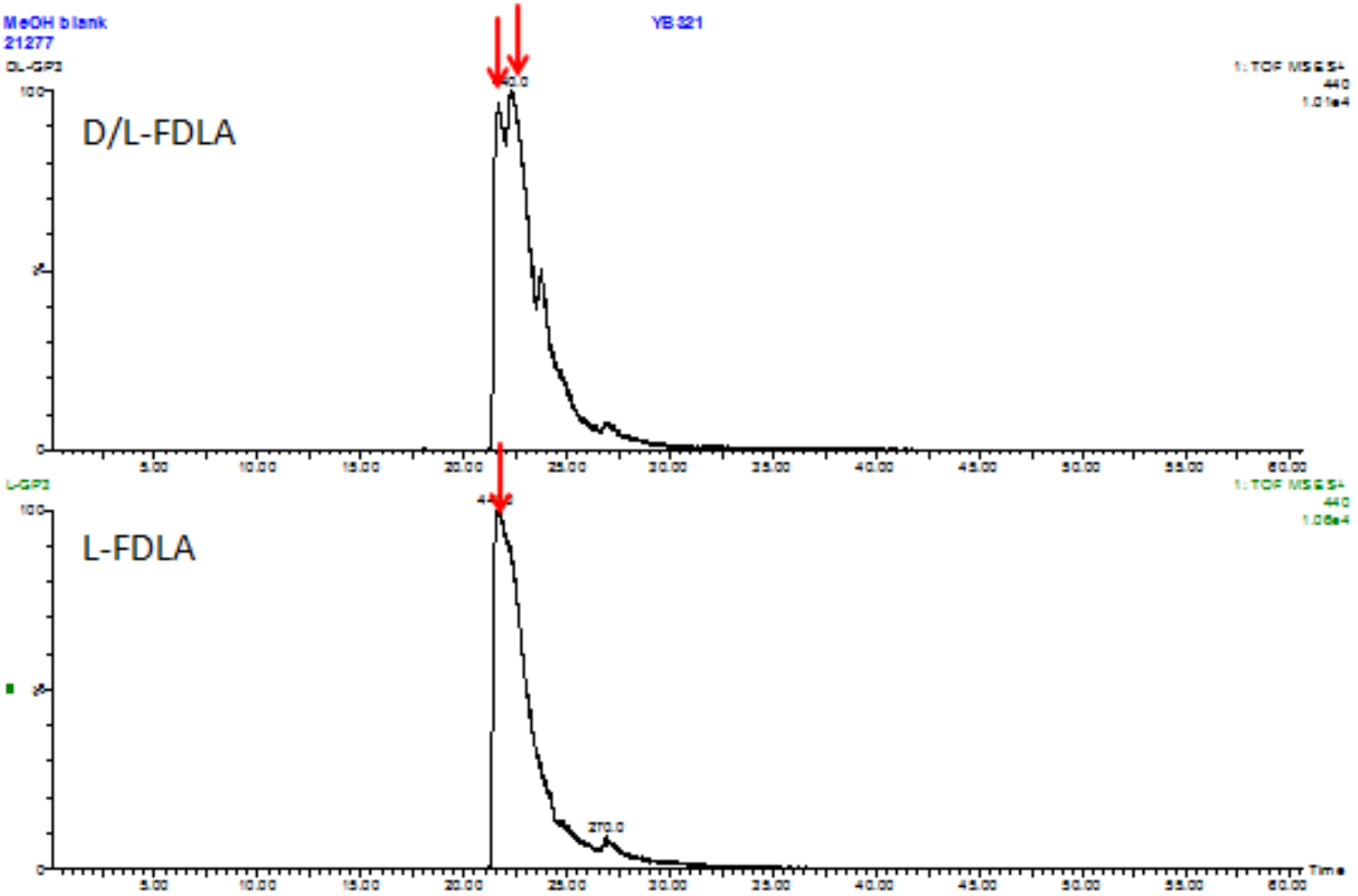
A)D,L-FDLA-Threonine derivatives in **2**: 414 $[M+H]^+$



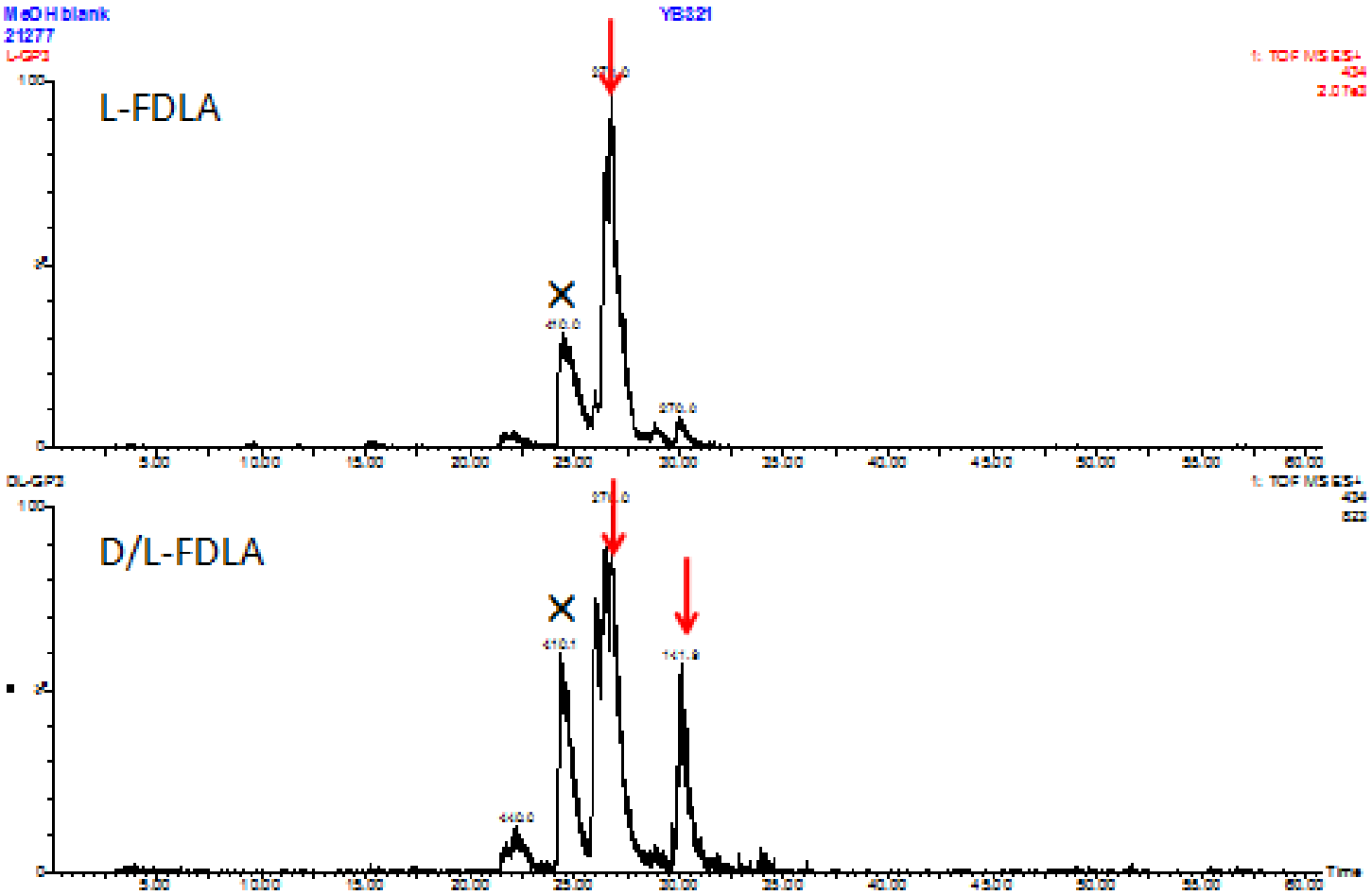
B)D,L-FDLA-Leucine derivatives in **2**: 426 $[M+H]^+$



C)D,L-FDLA-HMP derivatives in **2**: 440 $[M+H]^+$



184 D)D,L-FDLA-Valine derivatives in **2**: 434 $[M+Na]^+$

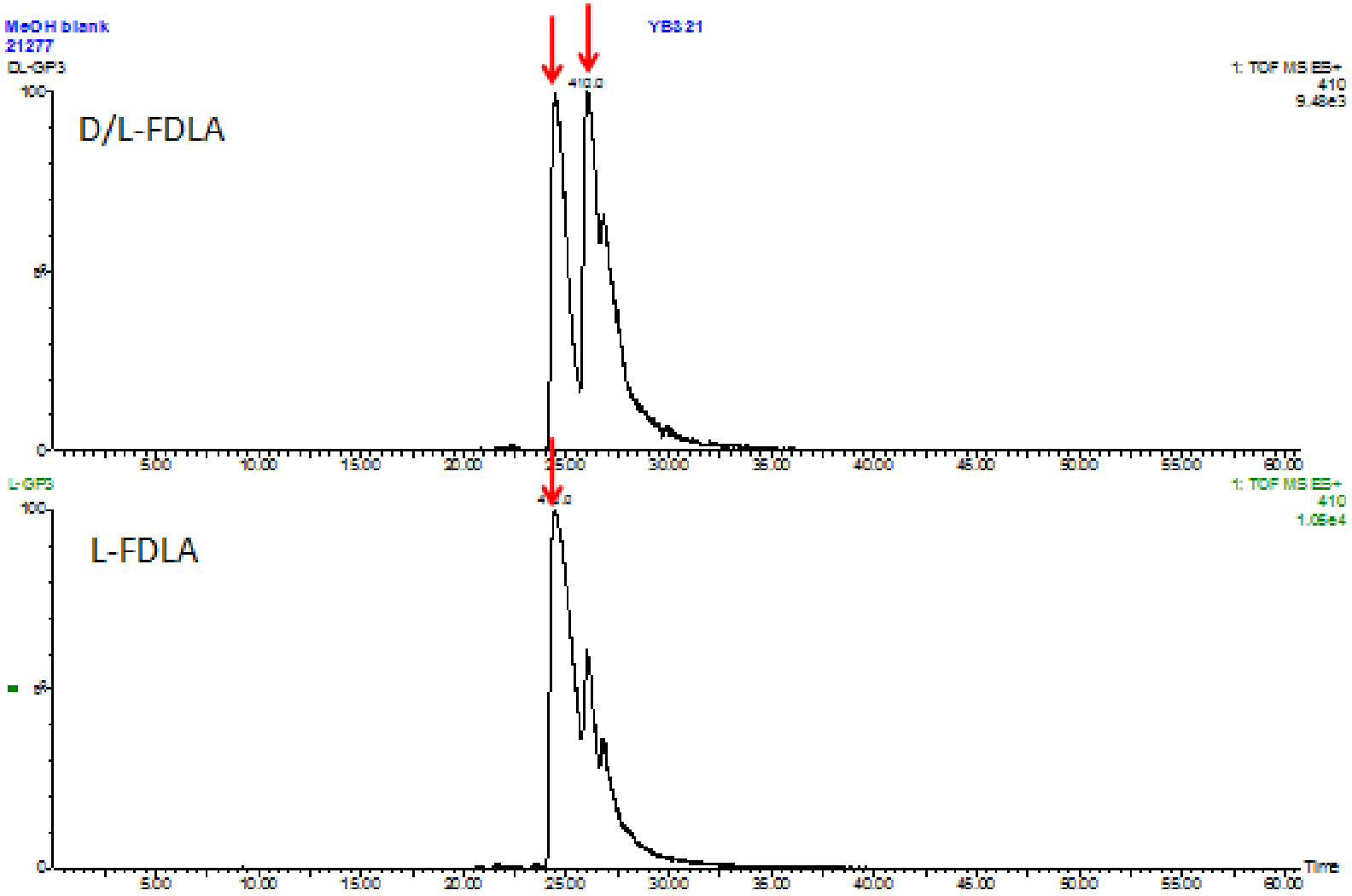


185

186

187

E)D,L-FDLA-Proline derivatives in **2**: 410 $[M+H]^+$



F)D,L-FDLA-Proline standard: 410 $[M+H]^+$

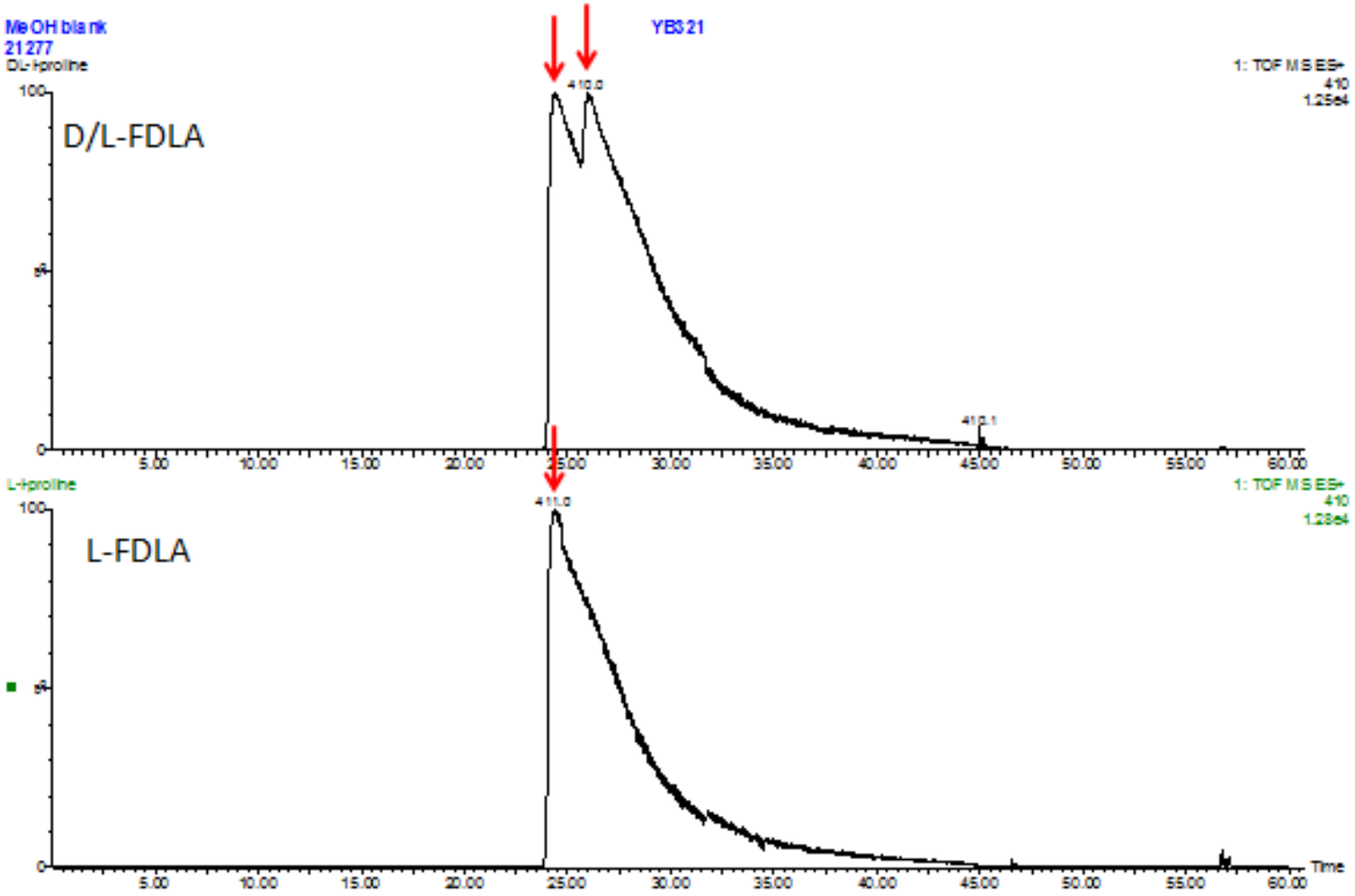
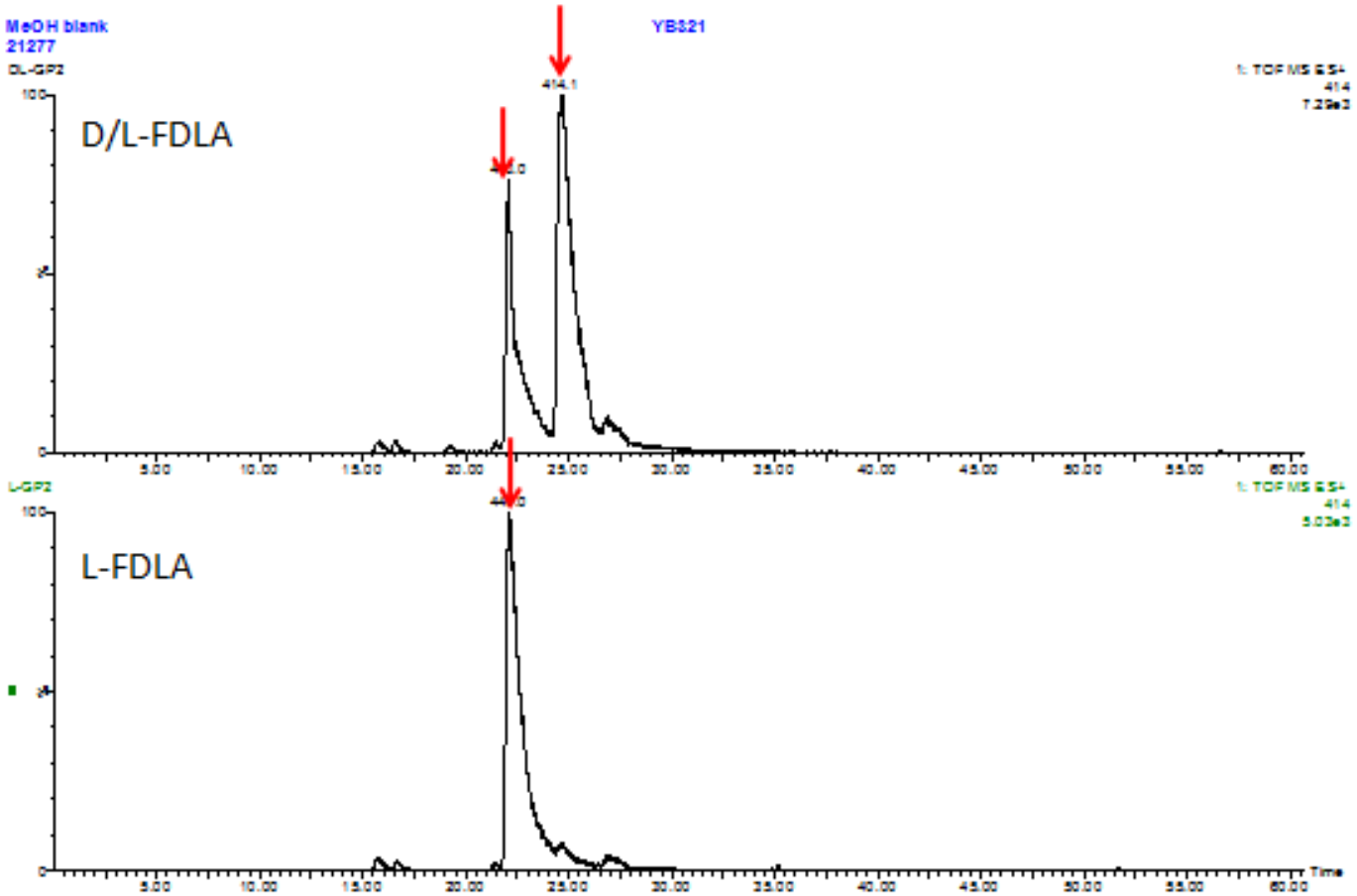
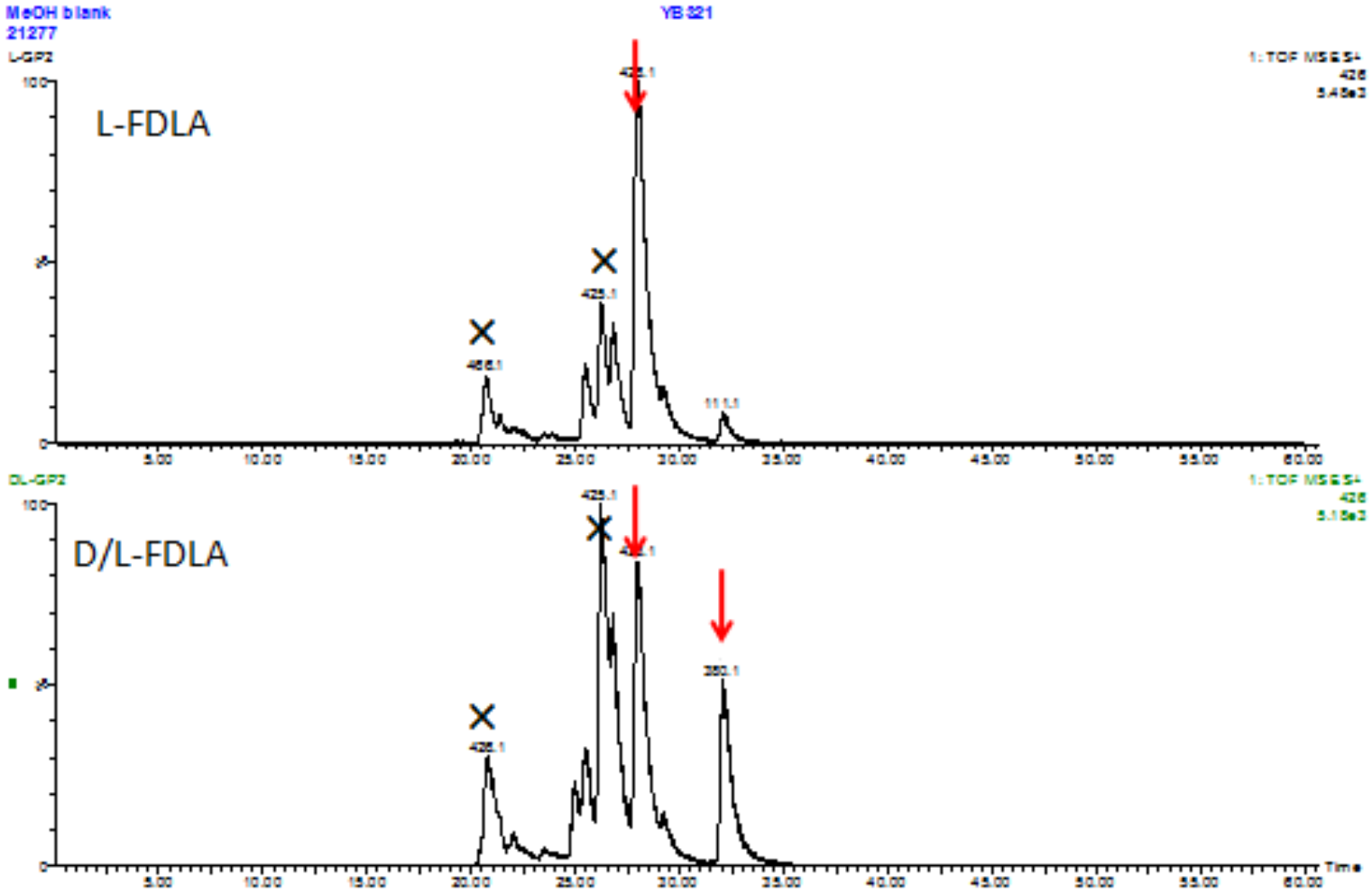


Figure S35. Advanced Marfey's analysis of acid hydrolysate of **3**

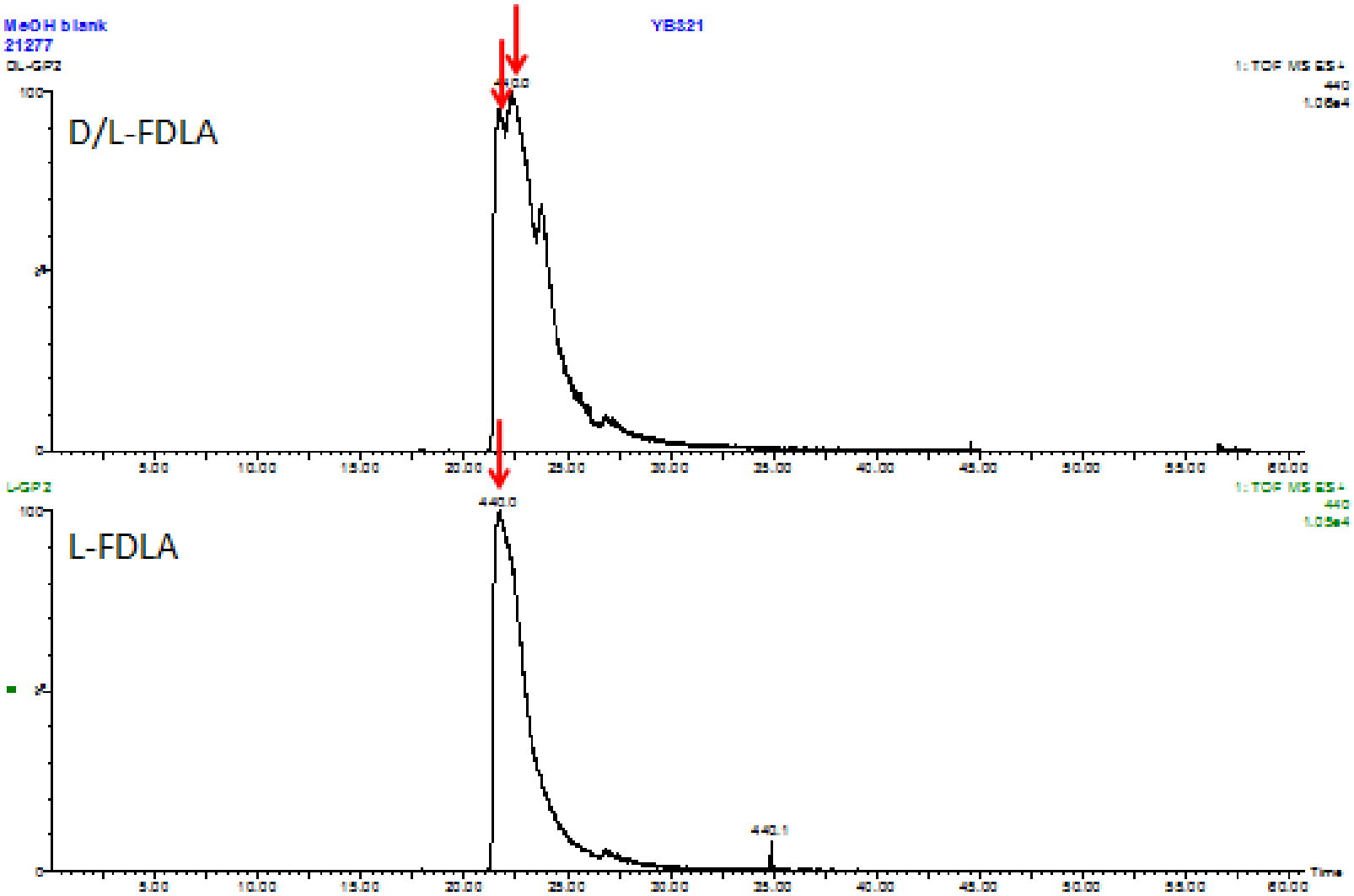
A)D,L-FDLA-Threonine derivatives in **3**: 414 $[M+H]^+$



B)D,L-FDLA-Leucine derivatives in **3**: 426 $[M+H]^+$



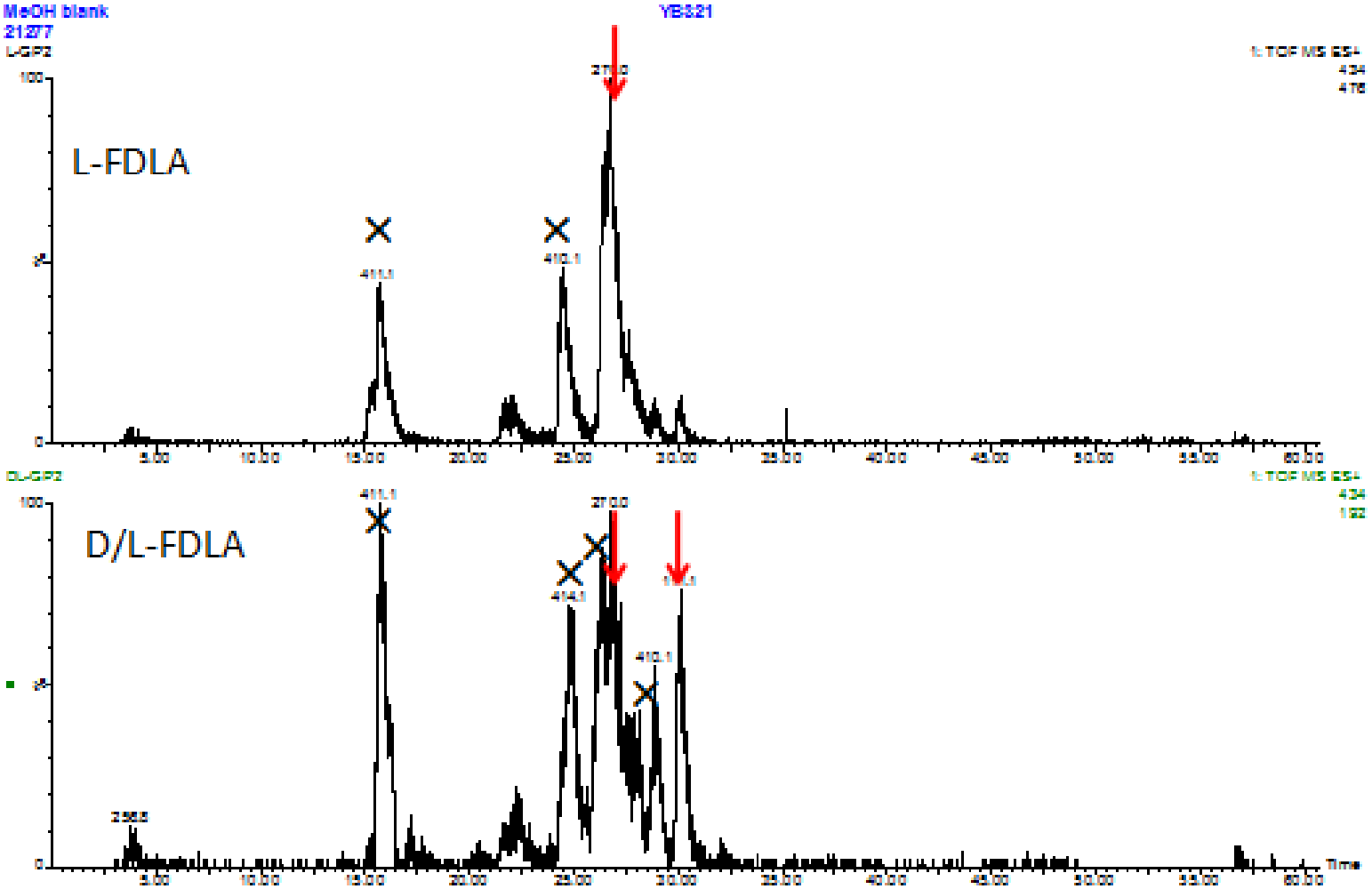
202 C)D,L-FDLA-HMP derivatives in **3**: 440 $[M+H]^+$



203

204

205 D)D,L-FDLA-Valine derivatives in **3**: 434 $[M+Na]^+$



206

207

E)D,L-FDLA-Proline derivatives in **3**: 410 $[M+H]^+$

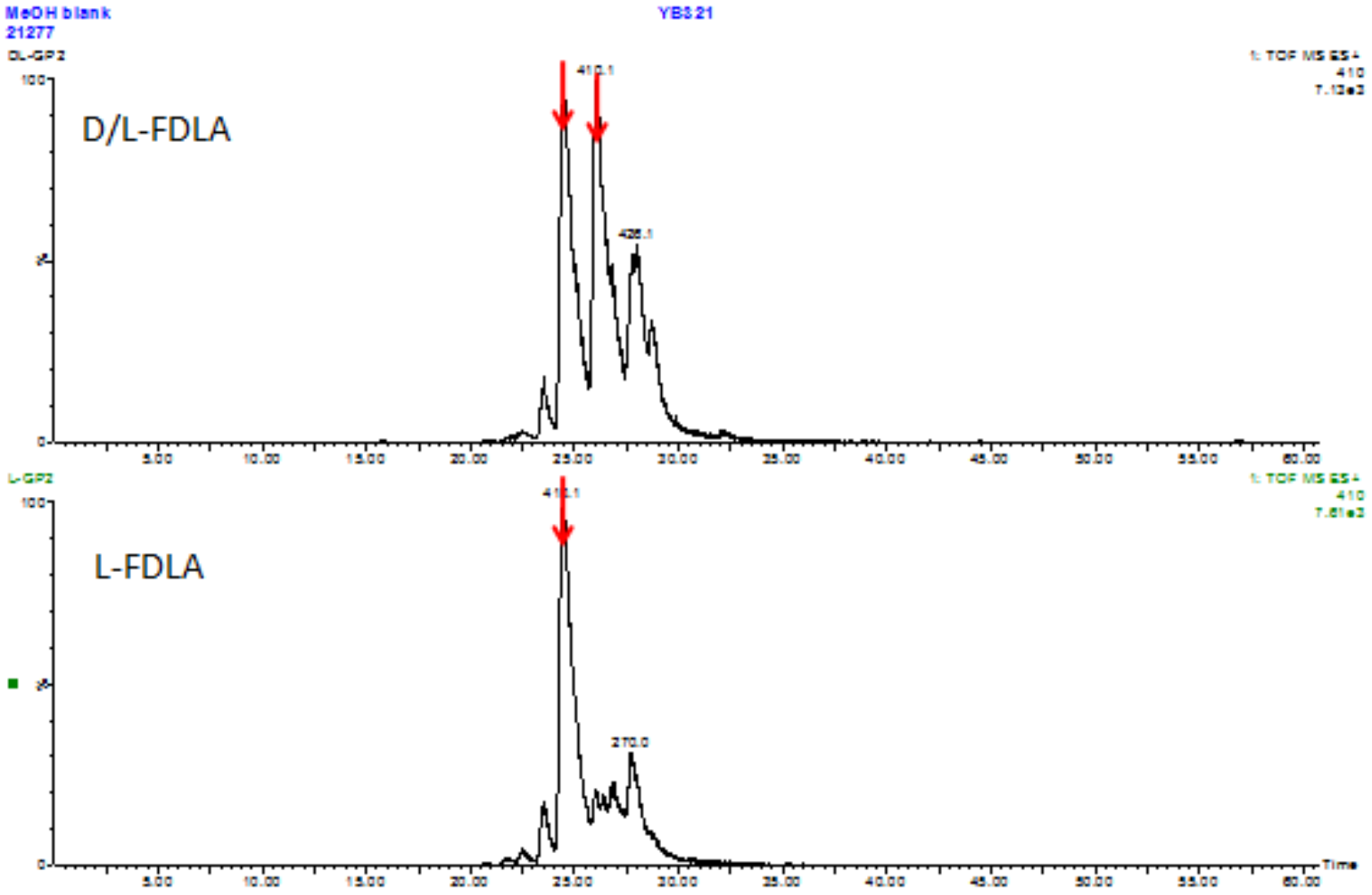


Table S1: Corresponding Retention times between D/L-FDLA derivatives of amino acids

Amino acids	Structure of FDLA-derivatives	m/z $[M+H]^+$	Retention time of D/L-FDLA derivatives (min)	Retention time of L-FDLA derivatives (min)
L-Threonine		414	22.03, 24.57	22.08
L-Leucine		426	27.94, 32.03	28.03
		440.1	21.61, 22.22	21.59
L-Valine		412, 434[M+Na]+	26.69, 29.95	26.69
L-Proline		410	24.41, 26.00	24.35
L-Proline (standard)		410	24.43, 26.05	24.39

Analysis condition:

HPLC-MS method: the analysis of the L- and D-FDLA derivatives was carried out by an Agilent Eclipse XDB-C18 column (150×4.6 mm, 5 μm) employing a linear gradient of from 5% to 100% CH_3CN in 0.1%formic acid at 0.5 mL/min over 45 min.