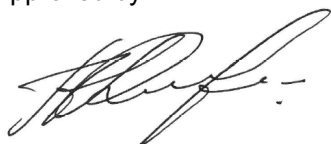


Name:	Tiopronin-13C,D3
Lot#:	GR-11-165
Test Date:	09/19/2023 (re-test date: 09/19/2028)
CAS No.:	1189695-13-3
MF:	C ₄ ¹³ CH ₆ D ₃ NO ₃ S
MW:	167.21
Appearance:	Off-white solid
Purity:	95.3% by HPLC (average of three sample preparations); 99% atom ¹³ C; 98% atom D
¹H-NMR:	Conforms (shows a trace of EtOAc)
MS-ESI (-)	Conforms (shows peak at m/z = 166.08 [M-H] ⁻)
Storage	Store at -18°C in a dry place away from direct sunlight

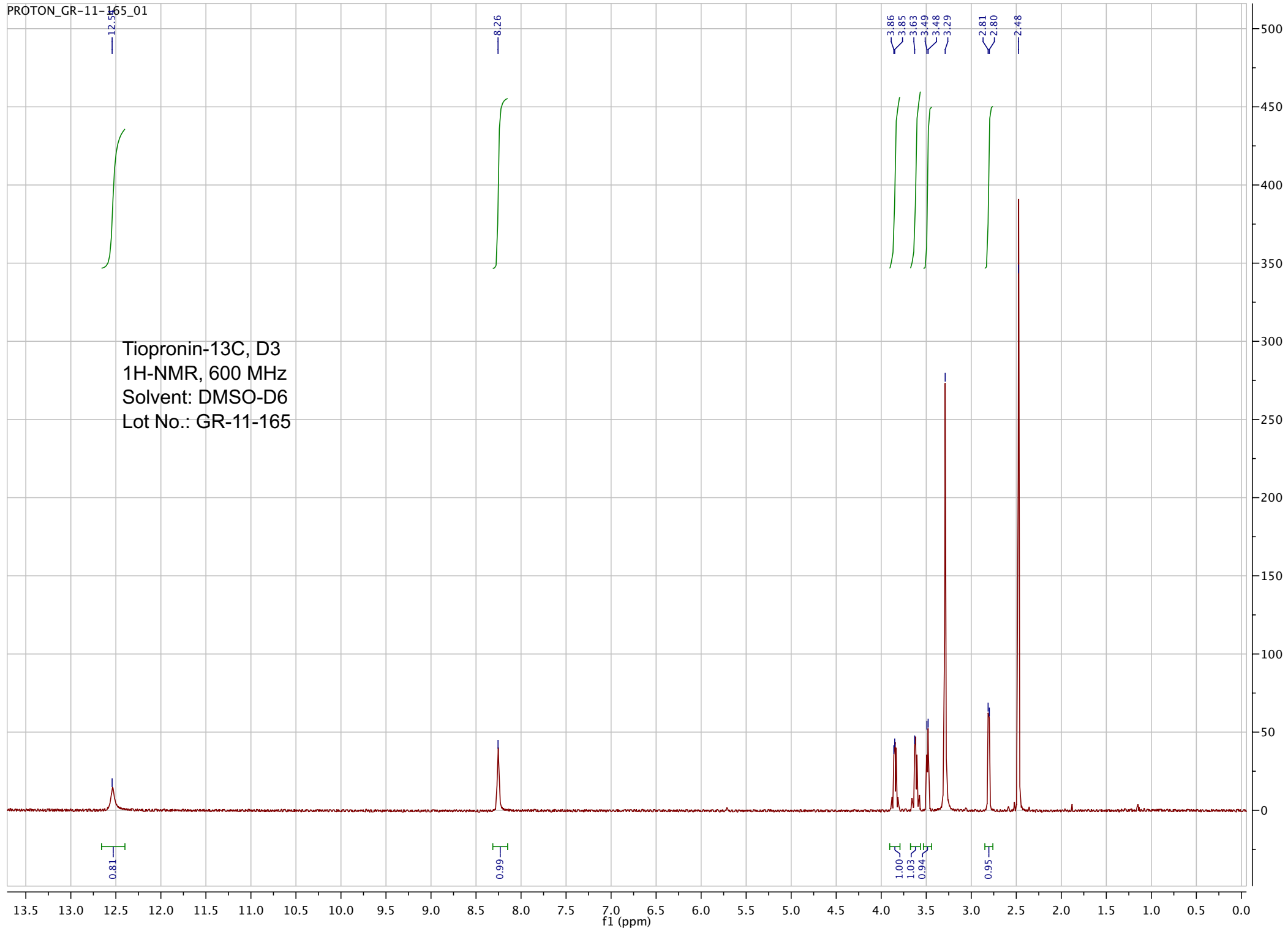
Approved by:

Date: 09/19/2023



Viorica Rusu, QC/QA Manager

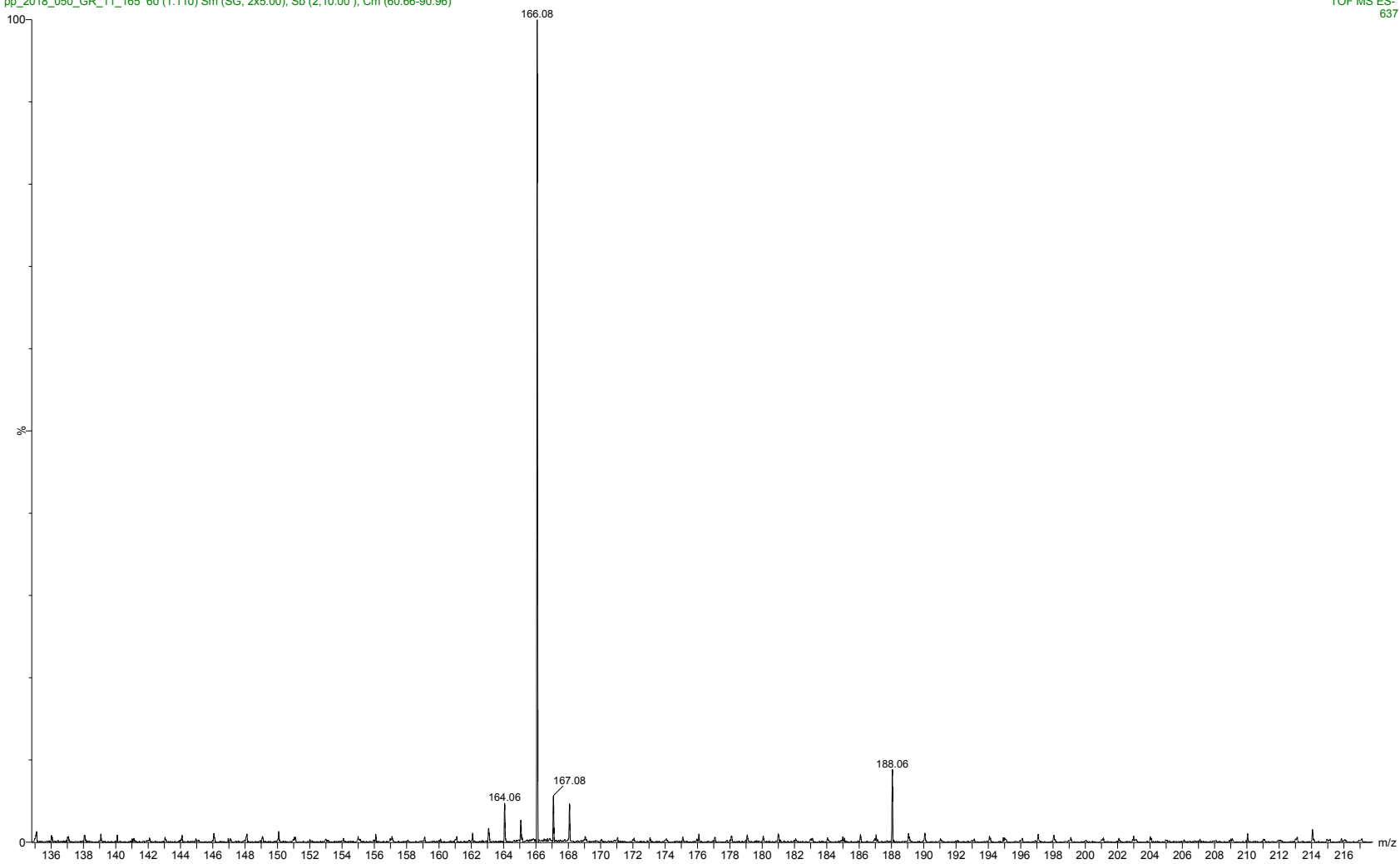
Tiopronin-13C, D3
1H-NMR, 600 MHz
Solvent: DMSO-D6
Lot No.: GR-11-165



pp_2018_050_GR_11_165 60 (1.110) Sm (SG, 2x5.00); Sb (2,10.00); Cm (60:66-90:96)

7.0000000

03-May-2018, 14:41:20
TOF MS ES-
637



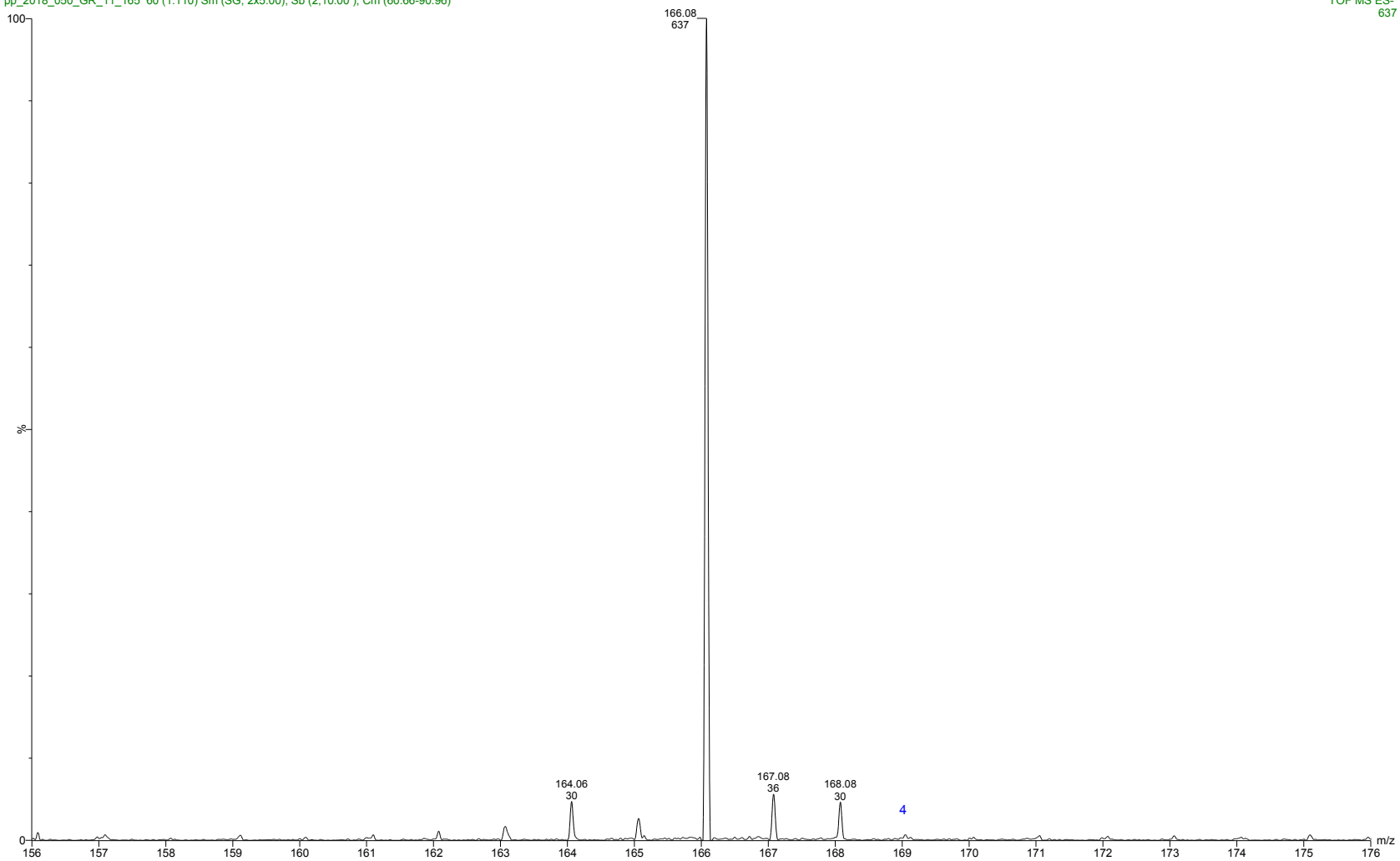
ESI-MS spectrum for sample GR-11-165. Shows monoisotopic $[M-H]^-$ mass.

pp_2018_050_GR_11_165 60 (1.110) Sm (SG, 2x5.00); Sb (2,10.00); Cm (60:66-90:96)

7.00000000

03-May-2018, 14:41:20

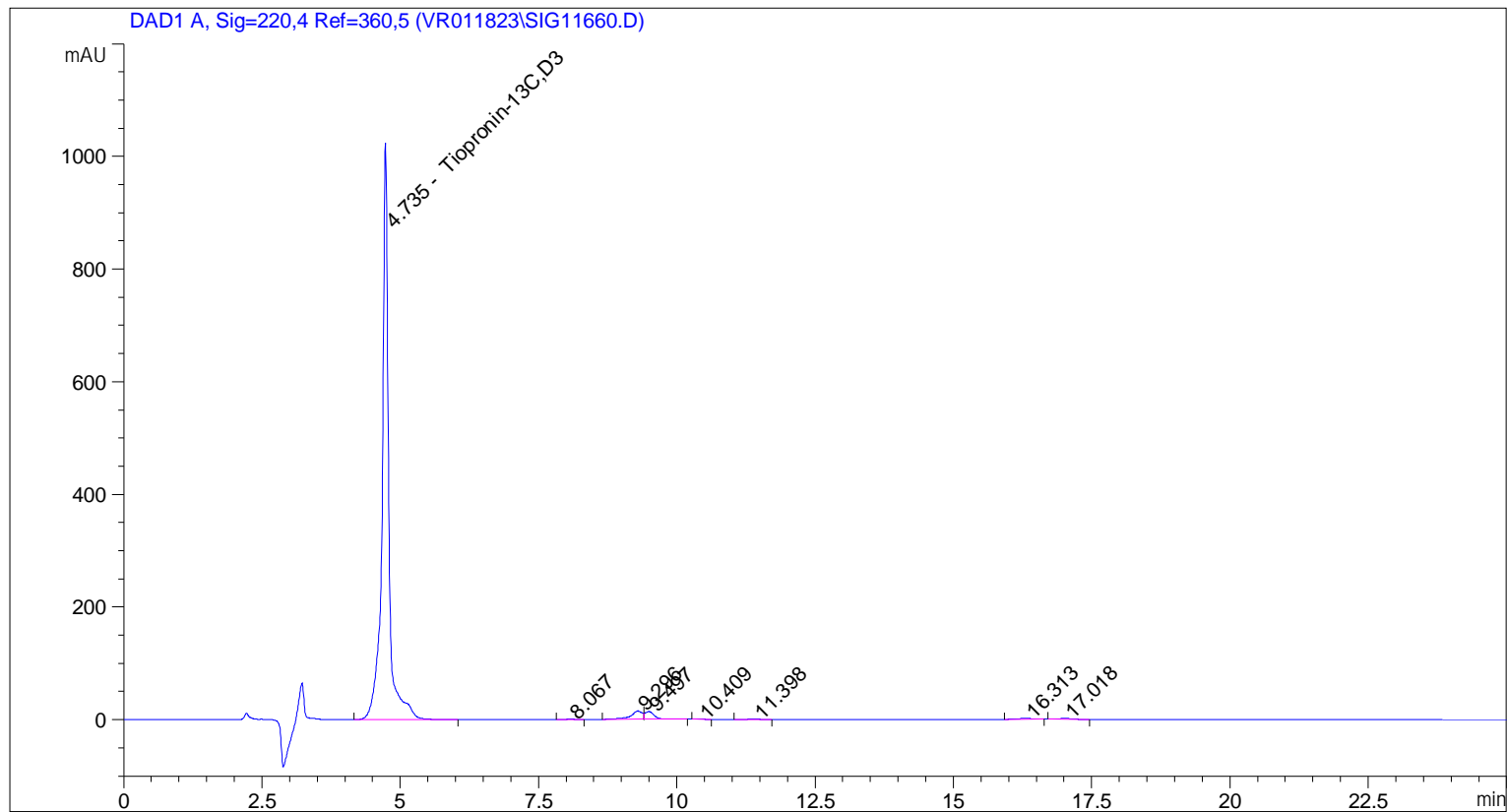
TOF MS ES-
637



Expansion of above showing intensity labels.

```

=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 3
Injection Date  : 9/19/2023 7:16:52 AM
                                           Inj Volume : 30.0 µl
Acq. Method    : C:\CHEM32\1\METHODS\VR091923_165.M
Last changed   : 9/19/2023 7:15:18 AM by vrusu
Analysis Method: C:\CHEM32\1\METHODS\VR091923_165PM.M
Last changed   : 9/19/2023 9:58:31 AM by vrusu
  
```



=====
 Area Percent Report
 =====

```

Sorted By      : Signal
Calib. Data Modified : 9/19/2023 8:56:33 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=220,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	4.735	BB	0.1191	8526.49023	94.9079	Tiopronin-13C,D3
2	8.067	BB	0.1590	8.24939	0.0918	?
3	9.296	BV	0.2066	213.82660	2.3801	?
4	9.497	VB	0.1780	162.57664	1.8096	?
5	10.409	BB	0.1577	5.97000	0.0665	?
6	11.398	BB	0.1819	14.65836	0.1632	?
7	16.313	BB	0.2260	26.25856	0.2923	?
8	17.018	BB	0.2310	25.93536	0.2887	?

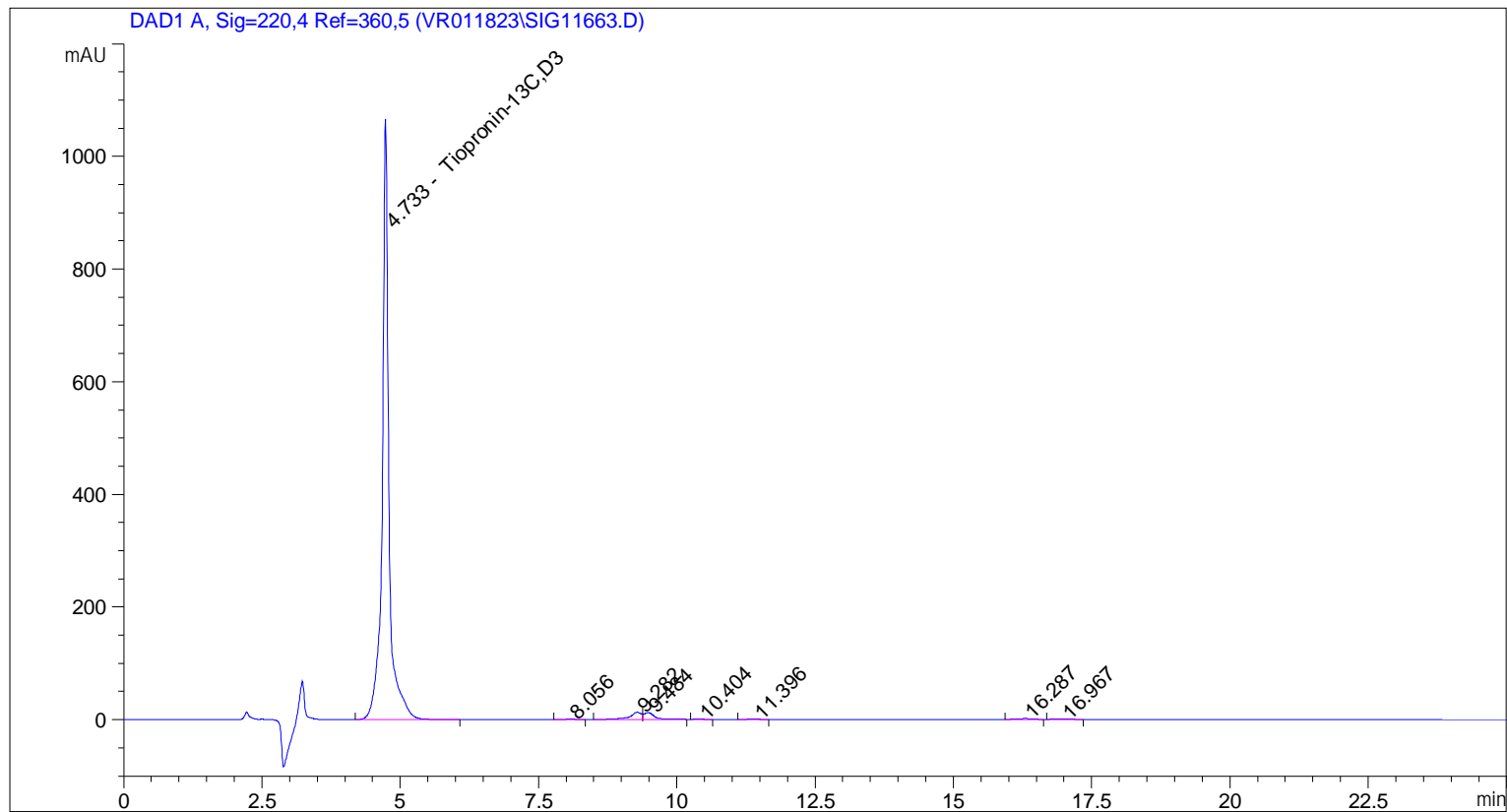
Sample Name: GR-11-165

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
Totals :				8983.96516		

=====
*** End of Report ***

```

=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 6
Injection Date  : 9/19/2023 9:04:11 AM
                                           Inj Volume : 30.0 µl
Acq. Method    : C:\CHEM32\1\METHODS\VR091923_165.M
Last changed   : 9/19/2023 9:02:38 AM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR091923_165PM.M
Last changed   : 9/19/2023 9:58:31 AM by vrusu
  
```



=====
 Area Percent Report
 =====

```

Sorted By      :      Signal
Calib. Data Modified : 9/19/2023 8:56:33 AM
Multiplier:    :      1.0000
Dilution:     :      1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=220,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	4.733	BB	0.1177	8936.62012	95.5295	Tiopronin-13C,D3
2	8.056	BB	0.1545	9.53821	0.1020	?
3	9.282	BV	0.2075	185.96158	1.9879	?
4	9.484	VB	0.1890	155.12480	1.6582	?
5	10.404	BB	0.1294	5.85346	0.0626	?
6	11.396	BB	0.1874	14.22701	0.1521	?
7	16.287	BB	0.2249	23.76225	0.2540	?
8	16.967	BB	0.2268	23.74496	0.2538	?

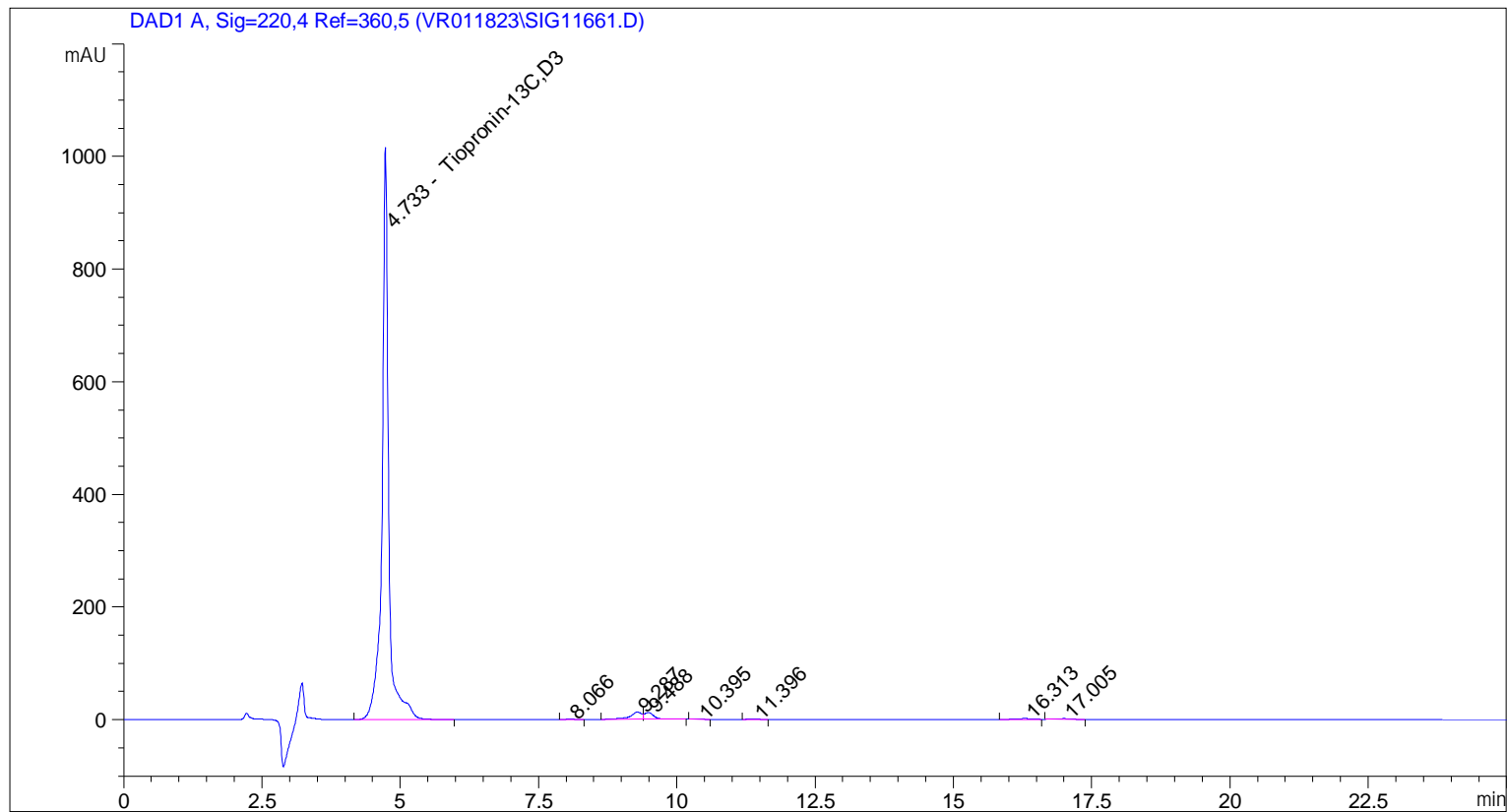
Sample Name: GR-11-165 spl-4

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
Totals :				9354.83240		

=====
*** End of Report ***


```

=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 4
Injection Date  : 9/19/2023 7:48:50 AM
                                           Inj Volume : 30.0 µl
Acq. Method    : C:\CHEM32\1\METHODS\VR091923_165.M
Last changed   : 9/19/2023 7:47:15 AM by vrusu
Analysis Method: C:\CHEM32\1\METHODS\VR091923_165PM.M
Last changed   : 9/19/2023 9:58:31 AM by vrusu
  
```



=====
 Area Percent Report
 =====

```

Sorted By      :      Signal
Calib. Data Modified : 9/19/2023 8:56:33 AM
Multiplier:    :      1.0000
Dilution:      :      1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=220,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	4.733	BB	0.1190	8445.62500	95.3948	Tiopronin-13C,D3
2	8.066	BB	0.1745	7.85999	0.0888	?
3	9.287	BV	0.2054	187.48663	2.1177	?
4	9.488	VB	0.1794	144.88670	1.6365	?
5	10.395	BB	0.1534	6.46839	0.0731	?
6	11.396	BB	0.1697	13.33323	0.1506	?
7	16.313	BB	0.2397	24.14207	0.2727	?
8	17.005	BB	0.2278	23.53716	0.2659	?

Sample Name: GR-11-165 spl-2

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
----- ----- ----- ----- ----- ----- -----				Totals :	8853.33918	

=====
*** End of Report ***