

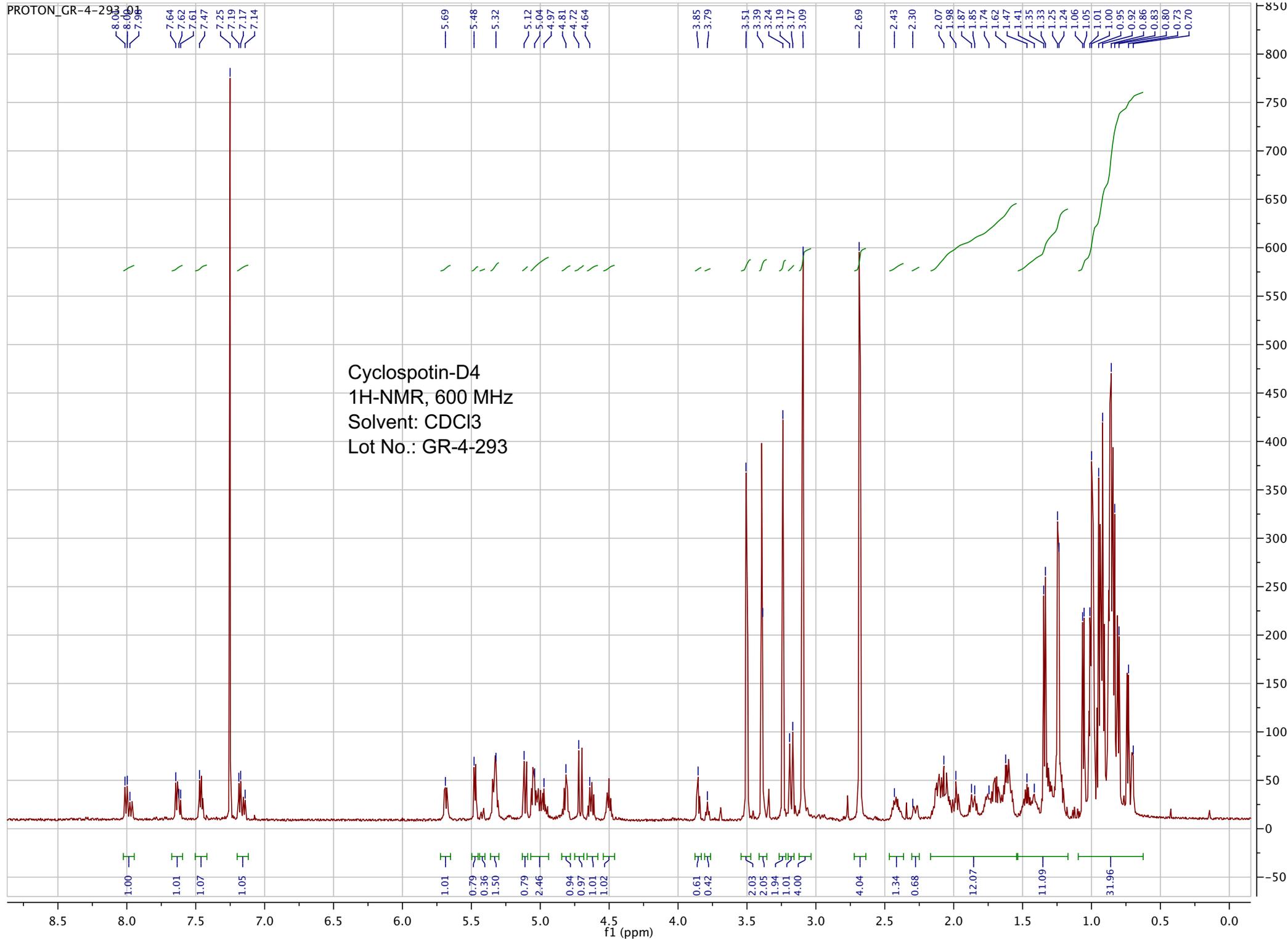
<b>Name:</b>	<b>Cyclosporin A-D4</b>
<b>Lot#:</b>	GR-4-293
<b>Test Date:</b>	01/28/2022 (re-test date: 01/28/2027)
<b>CAS No.:</b>	59865-13-3 (unlabelled)
<b>MF:</b>	C <sub>62</sub> H <sub>107</sub> D <sub>4</sub> N <sub>11</sub> O <sub>12</sub>
<b>MW:</b>	1206.64
<b>Appearance:</b>	White Solid
<b>Purity:</b>	98.0% by HPLC (average of two sample preparations); >98% atom D
<b><sup>1</sup>H-NMR:</b>	Conforms (shows ~1.3:1 mixture of Z and E isomers)
<b>MS-ESI (+)</b>	Conforms (shows peak at m/z = 1207.00 [M+H] <sup>+</sup> , 1228.99 [M+Na] <sup>+</sup> )
<b>Storage</b>	Store at -18°C in a dry place away from direct sunlight under nitrogen

Approved by:

Date: 05/22/2023



Viorica Rusu, QC/QA Manager



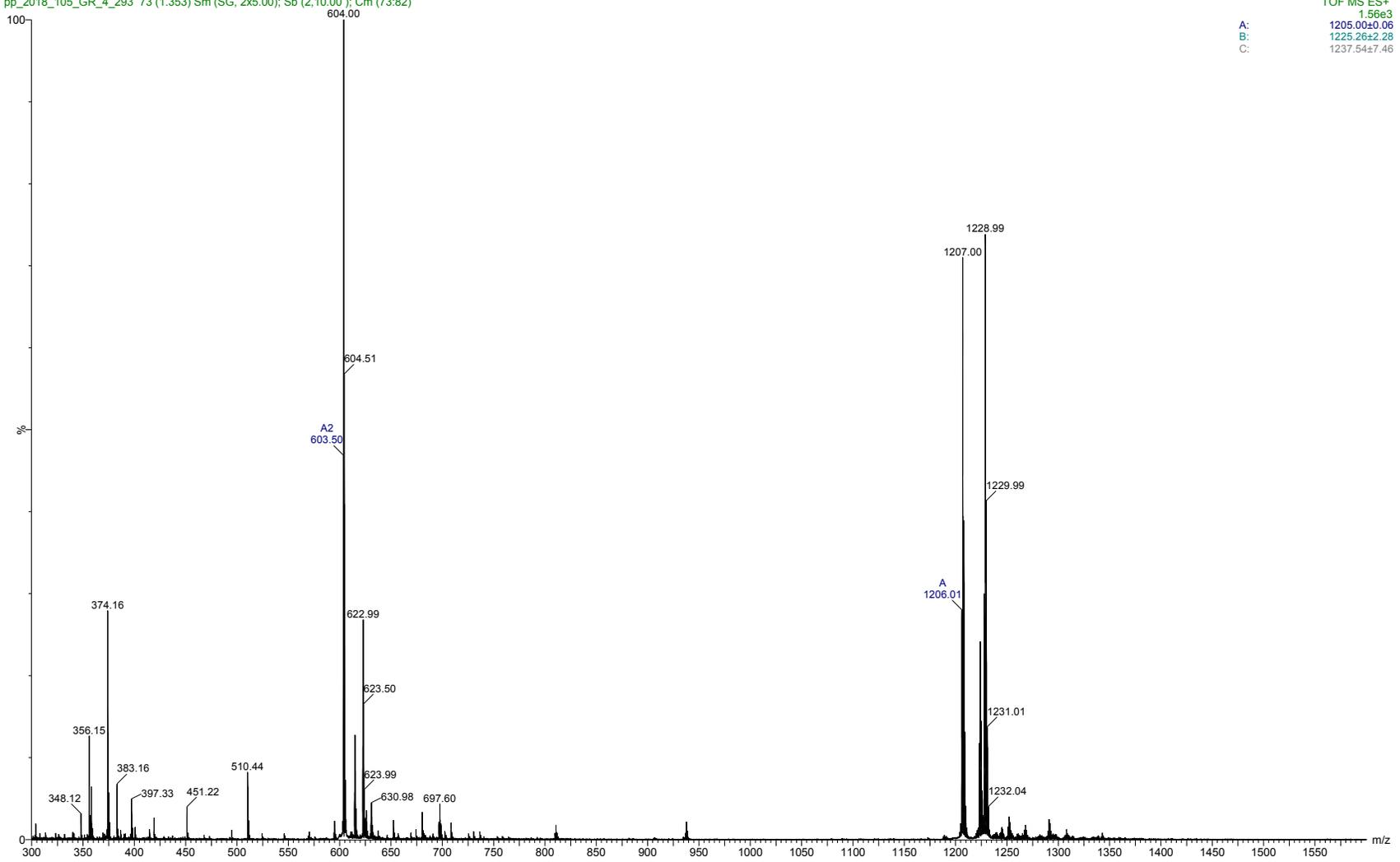
pp\_2018\_105\_GR\_4\_293 73 (1.353) Sm (SG, 2x5.00); Sb (2,10.00); Cm (73:82)

7.0000000

25-Jan-2018, 14:31:15

TOF MS ES+

A: 1205.00±0.06  
B: 1225.26±2.28  
C: 1237.54±7.46



ESI-MS spectrum for sample GR-4-293. Shows monoisotopic [M+H]<sup>+</sup> mass.

pp\_2018\_105\_GR\_4\_293 73 (1.353) Sm (SG, 2x5.00); Sb (2,10.00); Cm (73:82)

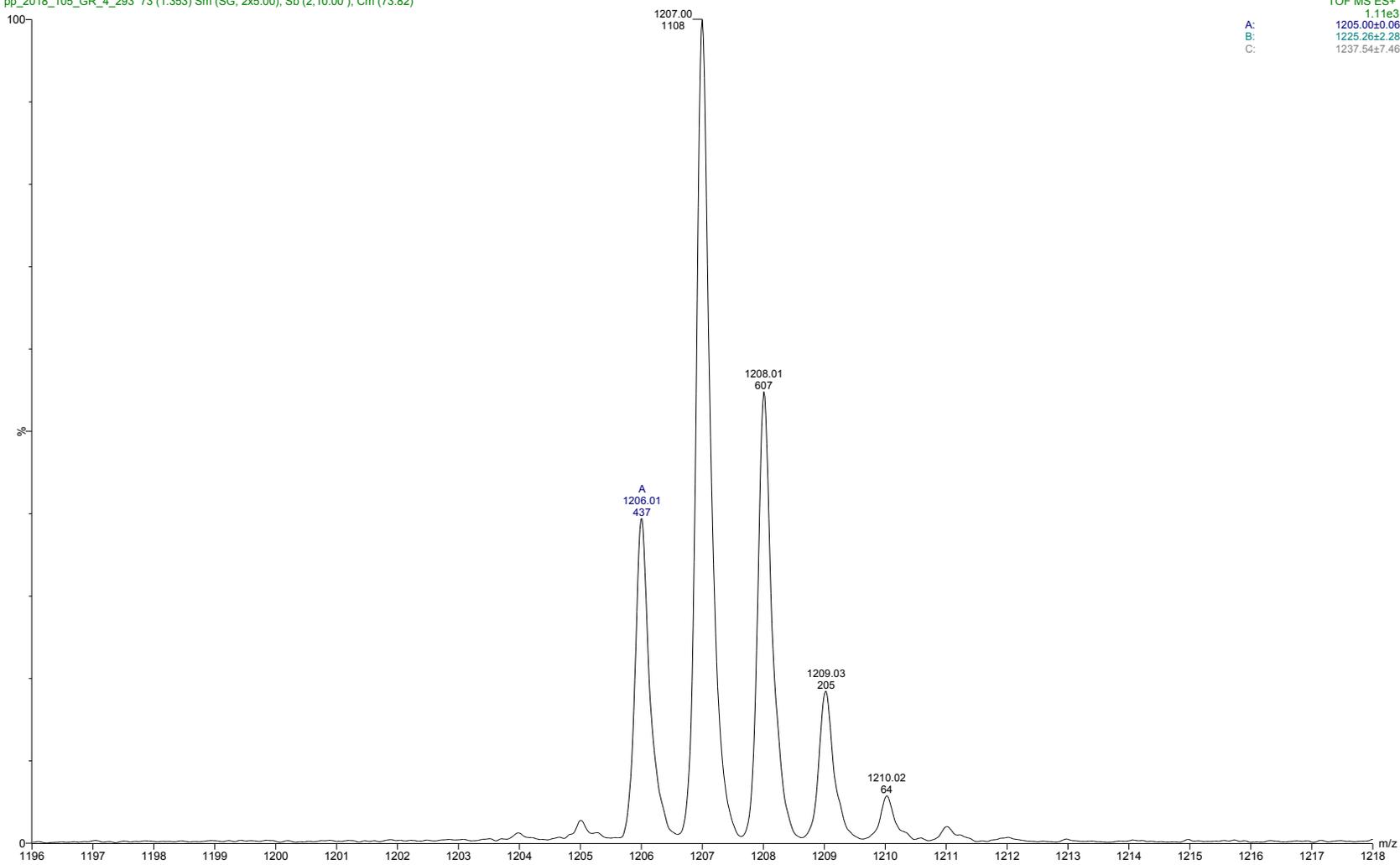
7.00000000

25-Jan-2018, 14:31:15

TOF MS ES+

1.11e3

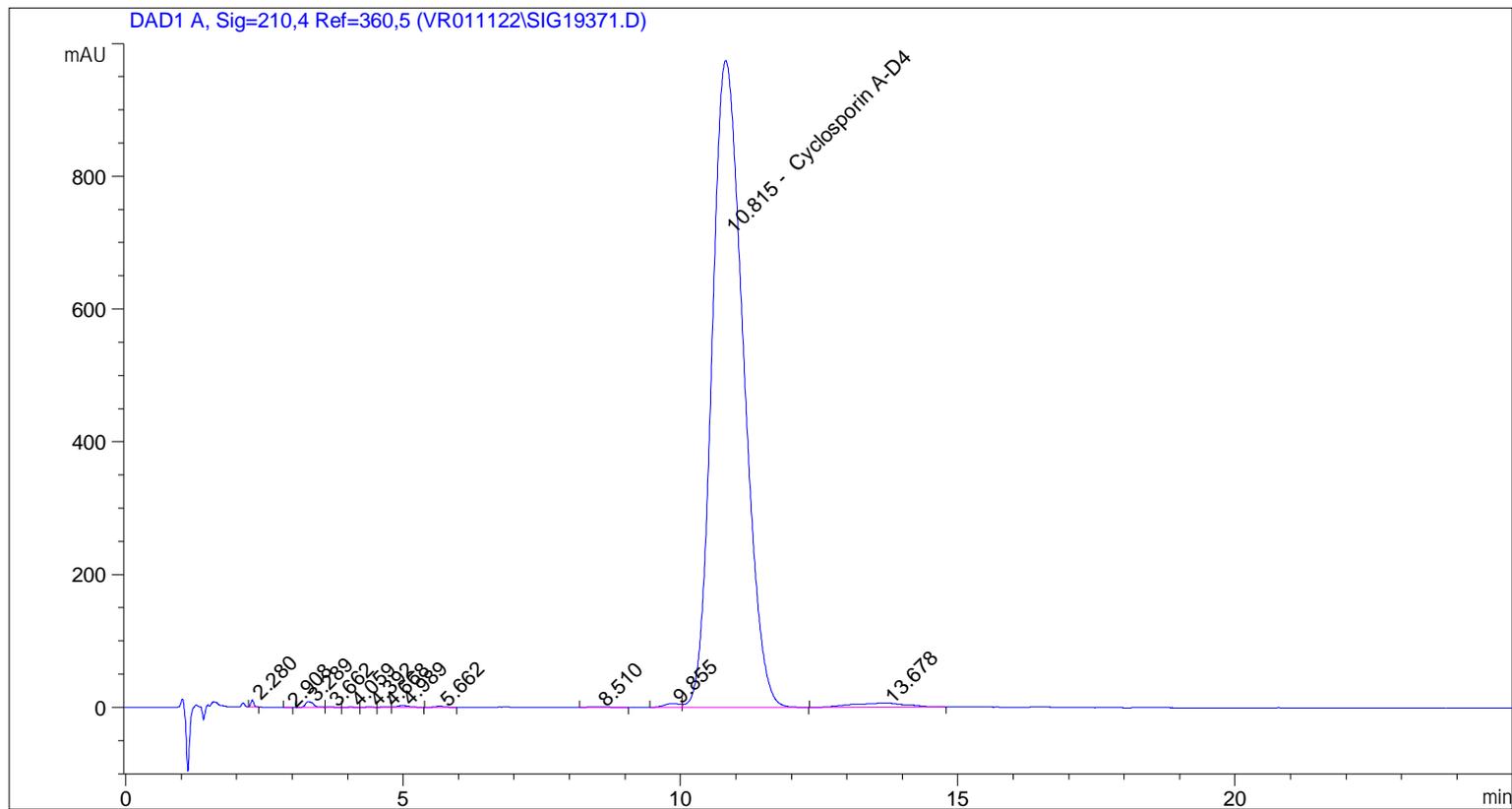
A: 1205.00±0.06  
B: 1225.26±2.28  
C: 1237.54±7.46



Expansion from raw data to show isotope distribution.

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=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 8
Injection Date  : 1/28/2022 3:35:28 PM
                                           Inj Volume : 30.0 µl
Acq. Method    : C:\CHEM32\1\METHODS\VR012822_293.M
Last changed   : 1/28/2022 3:34:07 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR012822_293PM.M
Last changed   : 1/28/2022 4:25:53 PM by vrusu
  
```



Area Percent Report

```

Sorted By      : Signal
Calib. Data Modified : 1/28/2022 4:25:13 PM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=210,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	2.280	BB	0.0564	37.15649	0.0954	?
2	2.908	BB	0.0702	1.03960	2.668e-3	?
3	3.289	BV	0.1368	86.19694	0.2212	?
4	3.662	VB	0.1509	5.24135	0.0135	?
5	4.059	BB	0.1157	3.71838	9.542e-3	?
6	4.392	BB	0.1173	6.07281	0.0156	?
7	4.668	BV	0.1406	9.65668	0.0248	?
8	4.989	VB	0.2419	41.94332	0.1076	?

Sample Name: GR-4-293

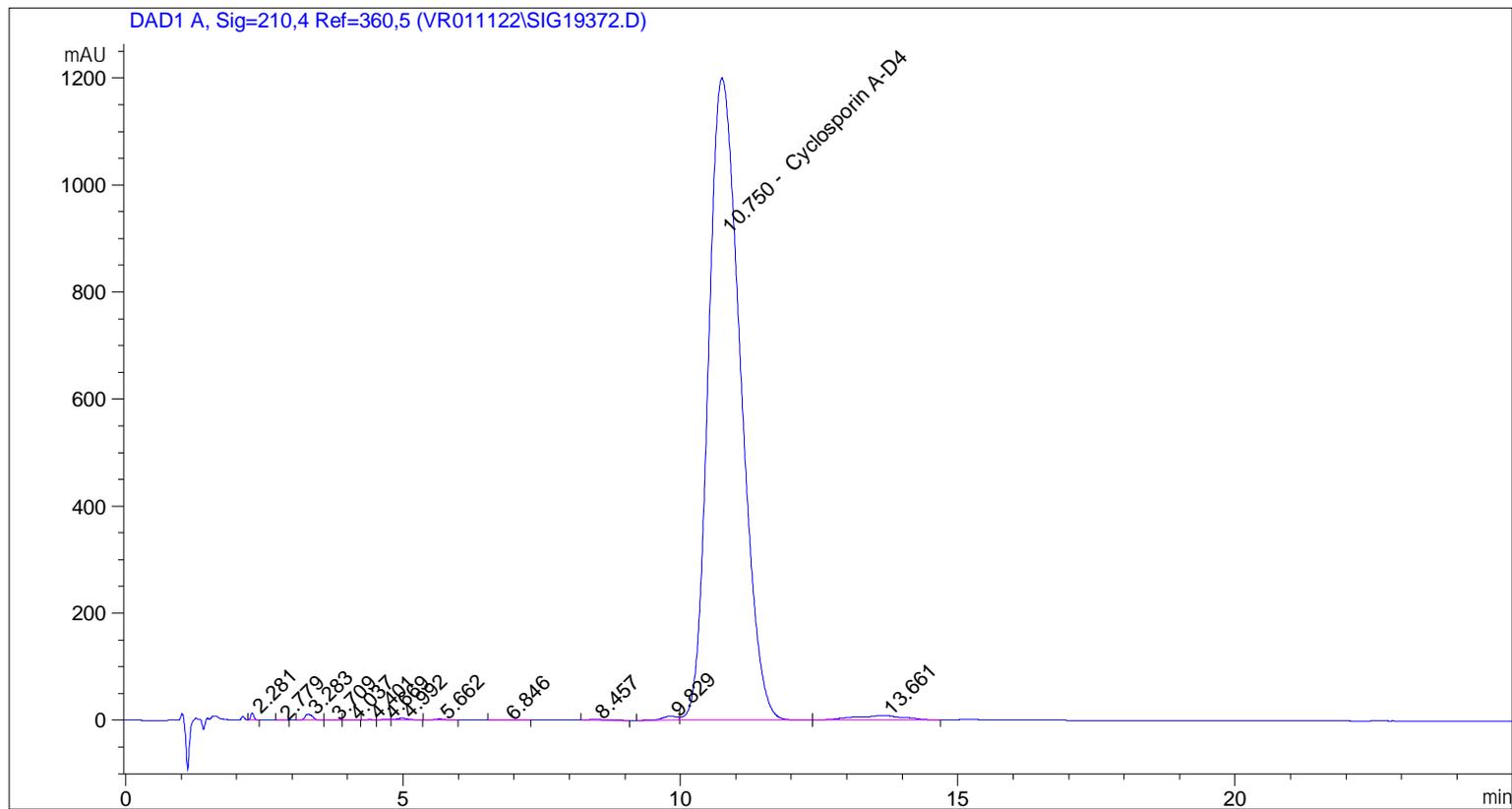
Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
9	5.662	BB	0.2043	22.13220	0.0568	?
10	8.510	BB	0.3172	26.27192	0.0674	?
11	9.855	BV	0.3036	112.58855	0.2889	?
12	10.815	VB	0.6092	3.81802e4	97.9803	Cyclosporin A-D4
13	13.678	BB	0.8512	434.99603	1.1163	?

Totals : 3.89672e4

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\*\*\* End of Report \*\*\*

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=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 9
Injection Date  : 1/28/2022 4:06:36 PM
                                           Inj Volume : 30.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR012822_293.M
Last changed    : 1/28/2022 4:05:15 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR012822_293PM.M
Last changed    : 1/28/2022 4:29:52 PM by vrusu
  
```



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

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Sorted By           :      Signal
Calib. Data Modified :      1/28/2022 4:25:13 PM
Multiplier:         :      1.0000
Dilution:           :      1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=210,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	2.281	BB	0.0571	49.61758	0.1012	?
2	2.779	BB	0.0778	1.21136	2.471e-3	?
3	3.283	BV	0.1319	107.60178	0.2195	?
4	3.709	VB	0.1619	6.52533	0.0133	?
5	4.037	BB	0.1227	4.57053	9.325e-3	?
6	4.401	BB	0.1240	7.80988	0.0159	?
7	4.669	BV	0.1476	12.94413	0.0264	?
8	4.992	VB	0.2245	57.43736	0.1172	?

Sample Name: GR-4-293 spl-2

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
9	5.662	BB	0.2178	30.63675	0.0625	?
10	6.846	BB	0.2621	16.74824	0.0342	?
11	8.457	BB	0.2634	24.74604	0.0505	?
12	9.829	BV	0.2807	147.98187	0.3019	?
13	10.750	VB	0.6268	4.80165e4	97.9632	Cyclosporin A-D4
14	13.661	BB	0.7445	530.51105	1.0823	?

Totals : 4.90148e4

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\*\*\* End of Report \*\*\*