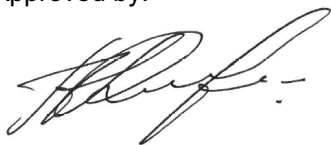


Name:	<i>rac-α-Lipoic Acid-D5</i>
Lot#:	GR-6-105
Test Date:	03/20/2020 (re-test date: 03/20/2025)
CAS No.:	1189471-66-6 (unlabeled)
MF:	C ₈ H ₉ D ₅ O ₂ S ₂
MW:	211.35
Appearance:	Yellow Solid
Purity:	96.7% by HPLC; >98% atom D
¹H-NMR:	Conforms
MS-ESI (-)	Conforms (show peaks at m/z = 210.08, 209.09 and 212.09 [M-H] ⁻ for D5 compound; exhibits expected isotope pattern)

Approved by:

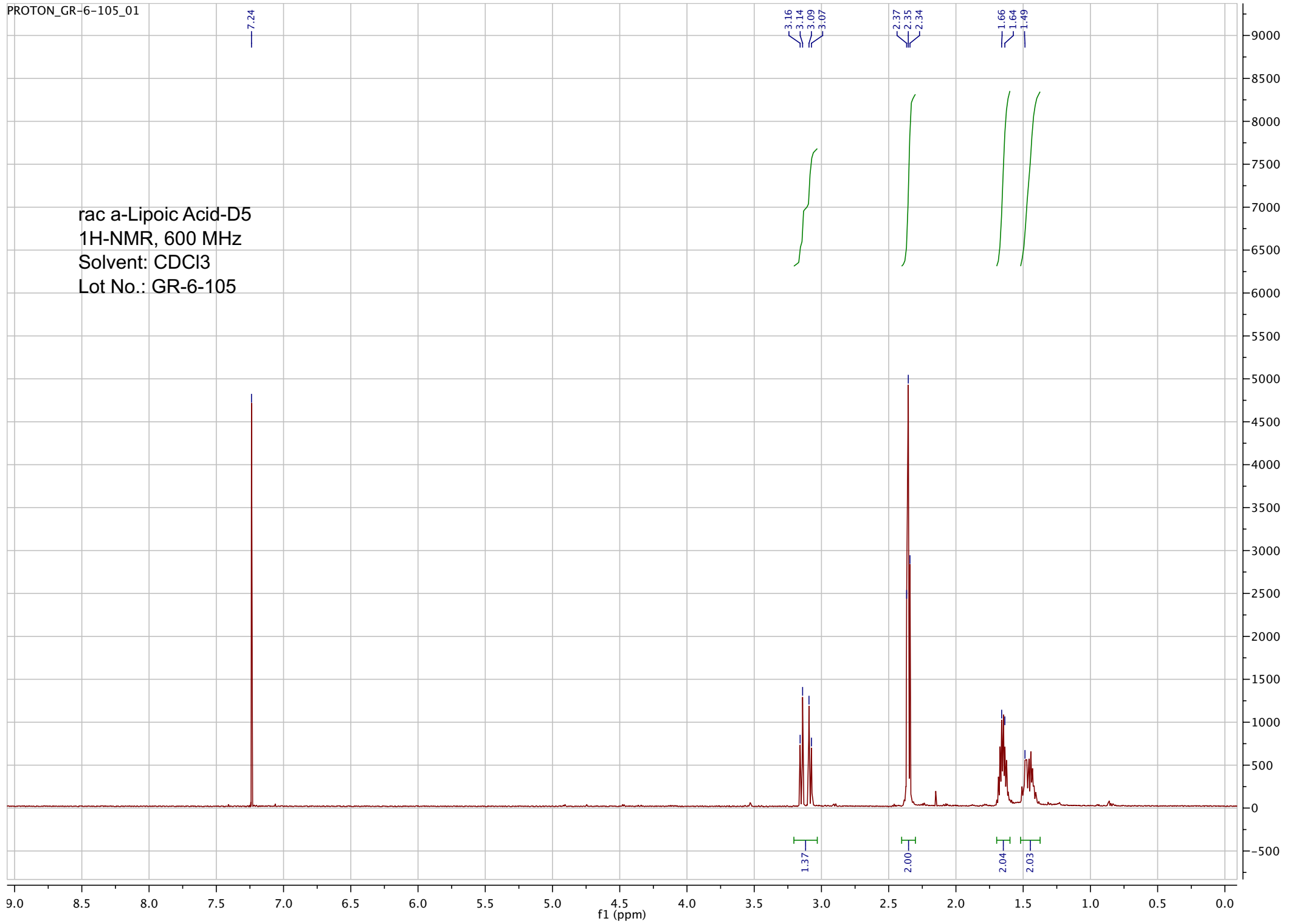
Date: 03/20/2020



Viorica Rusu, QC/QA Manager

PROTON_GR-6-105_01

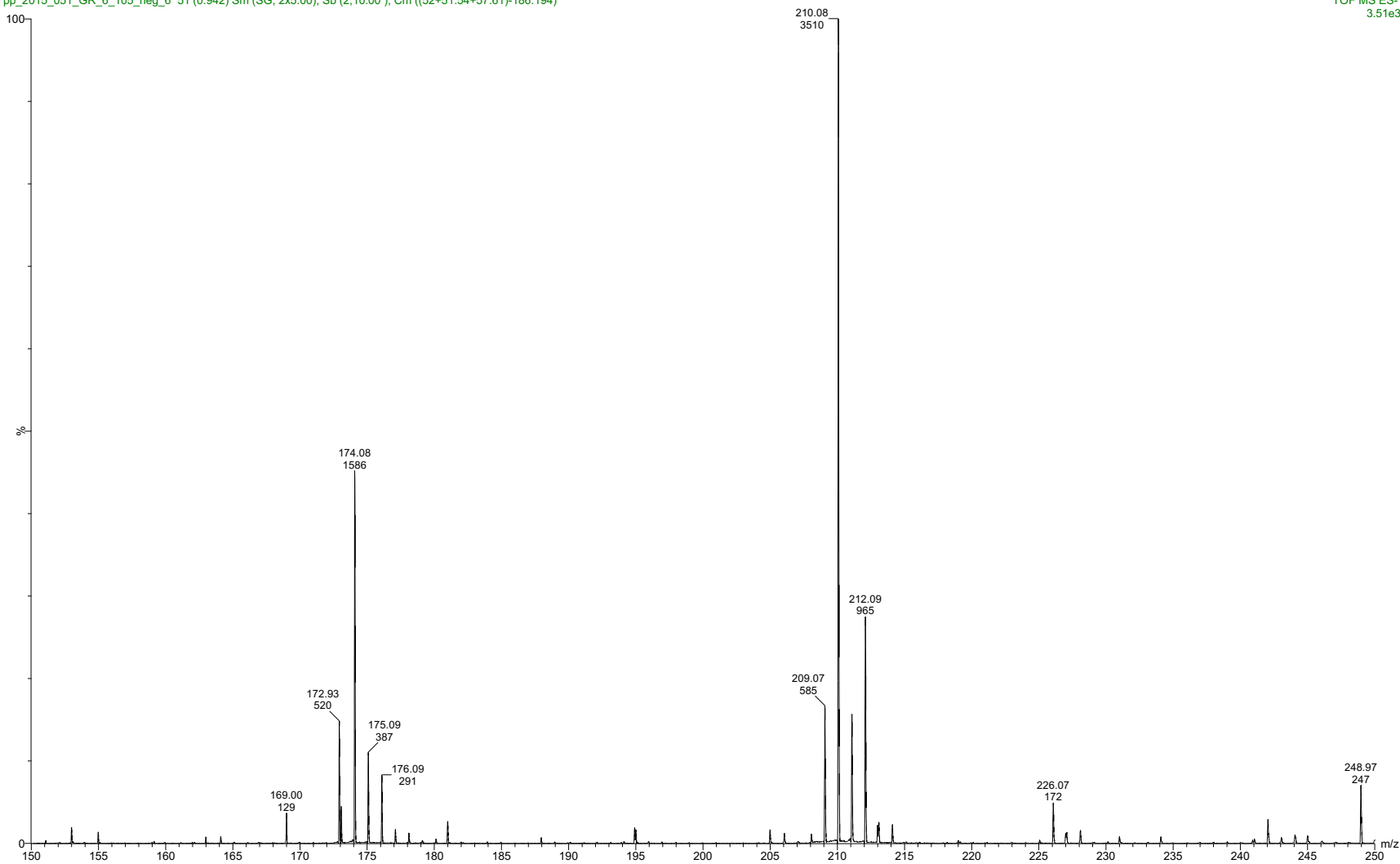
rac α-Lipoic Acid-D5
1H-NMR, 600 MHz
Solvent: CDCl3
Lot No.: GR-6-105



pp_2015_051_GR_6_105_neg_6 51 (0.942) Sm (SG, 2x5.00); Sb (2,10.00); Cm ((52+51:54+57:61)-186:194)

7.0000000

03-Jun-2015, 16:23:13
TOF MS ES-
3.51e3

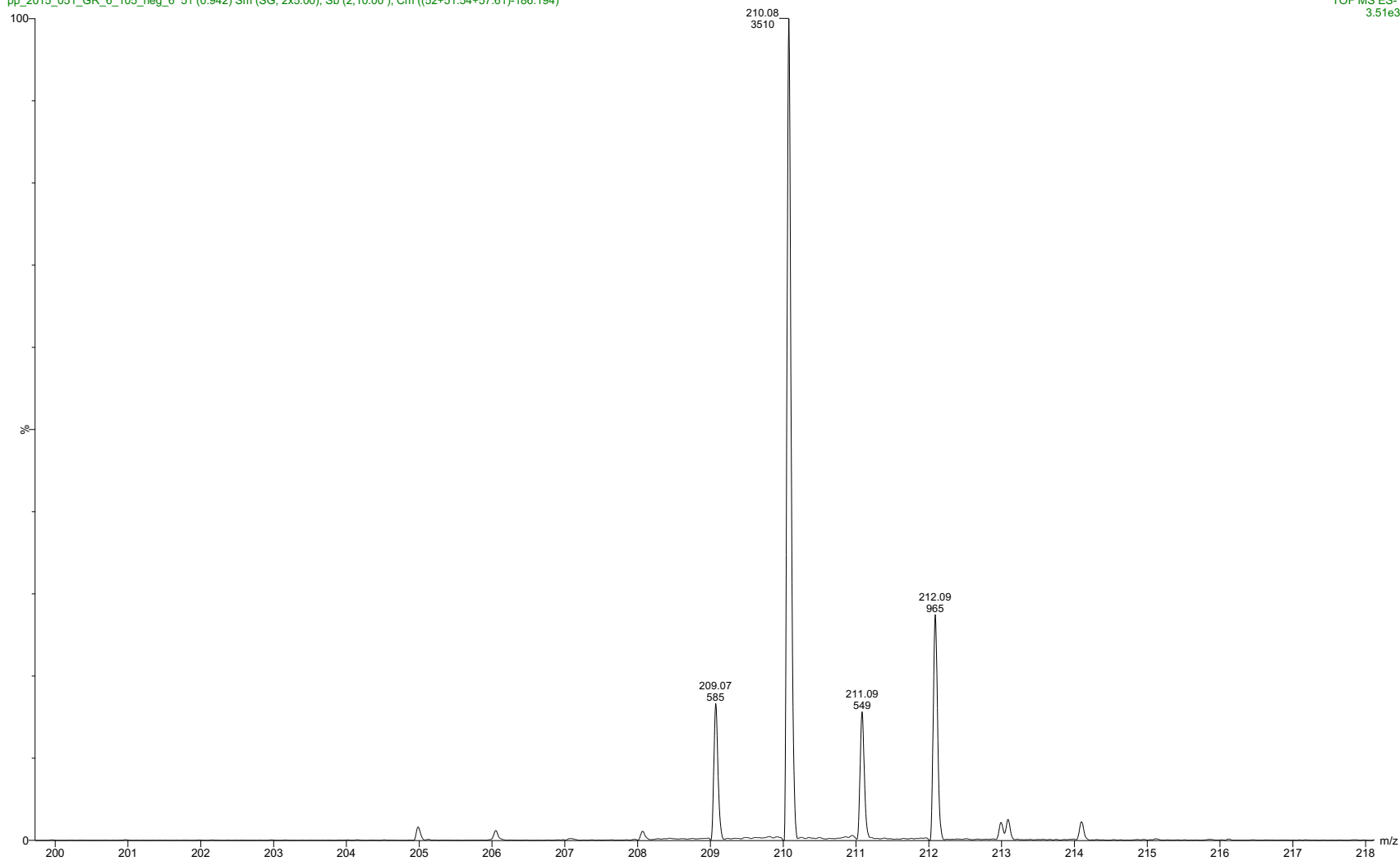


ESI-MS spectrum for sample GR-6-105. Shows monoisotopic [M-H]- mass. Intensity values are annotated on each peak.

pp_2015_051_GR_6_105_neg_6 51 (0.942) Sm (SG, 2x5.00); Sb (2,10.00); Cm ((52+51:54+57:61)-186:194)

7.0000000

03-Jun-2015, 16:23:13
TOF MS ES-
3.51e3



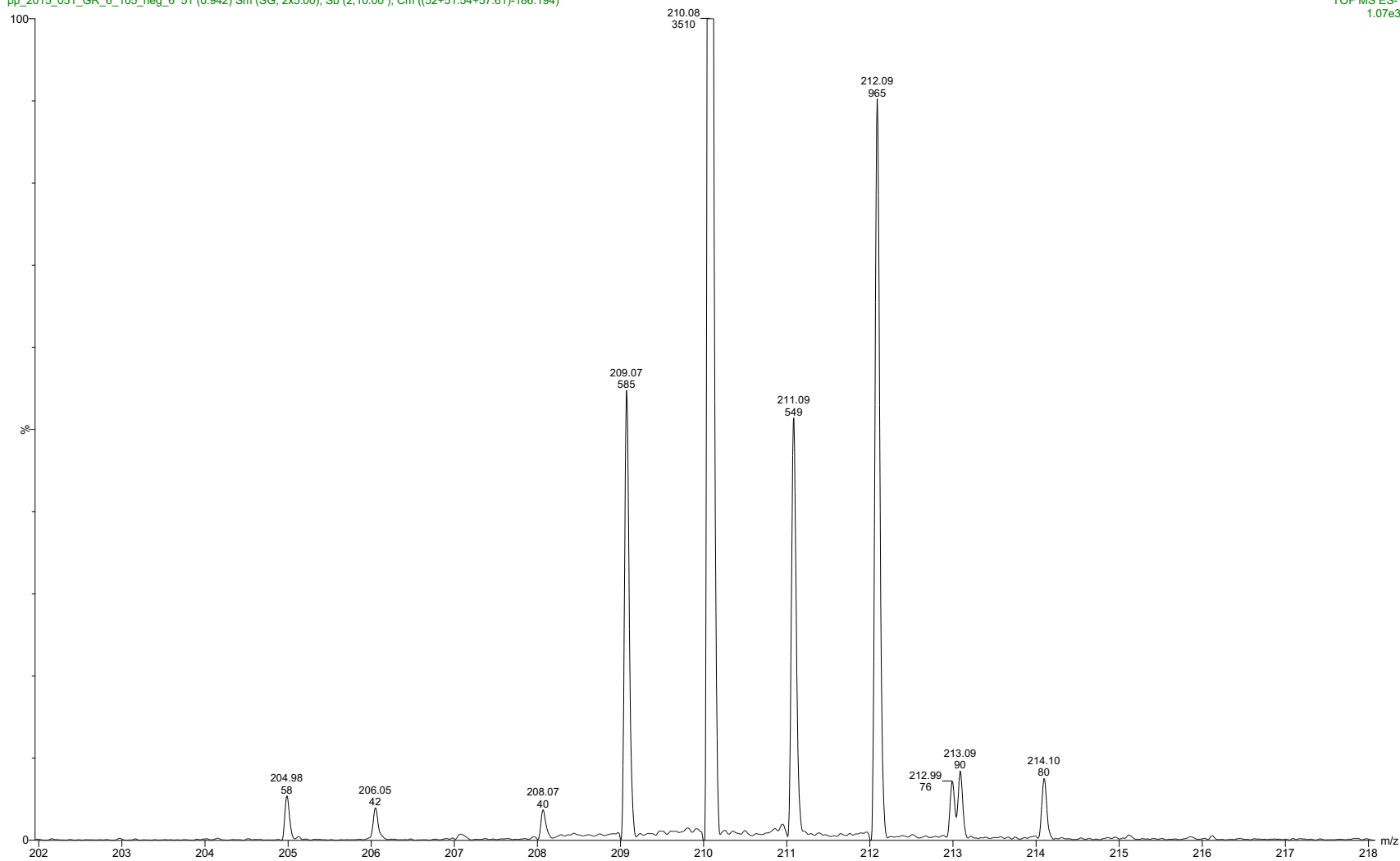
Expansion of above.

pp_2015_051_GR_6_105_neg_6 51 (0.942) Sm (SG, 2x5.00); Sb (2,10.00); Cm ((52+51:54+57:61)-186:194)

7.0000000

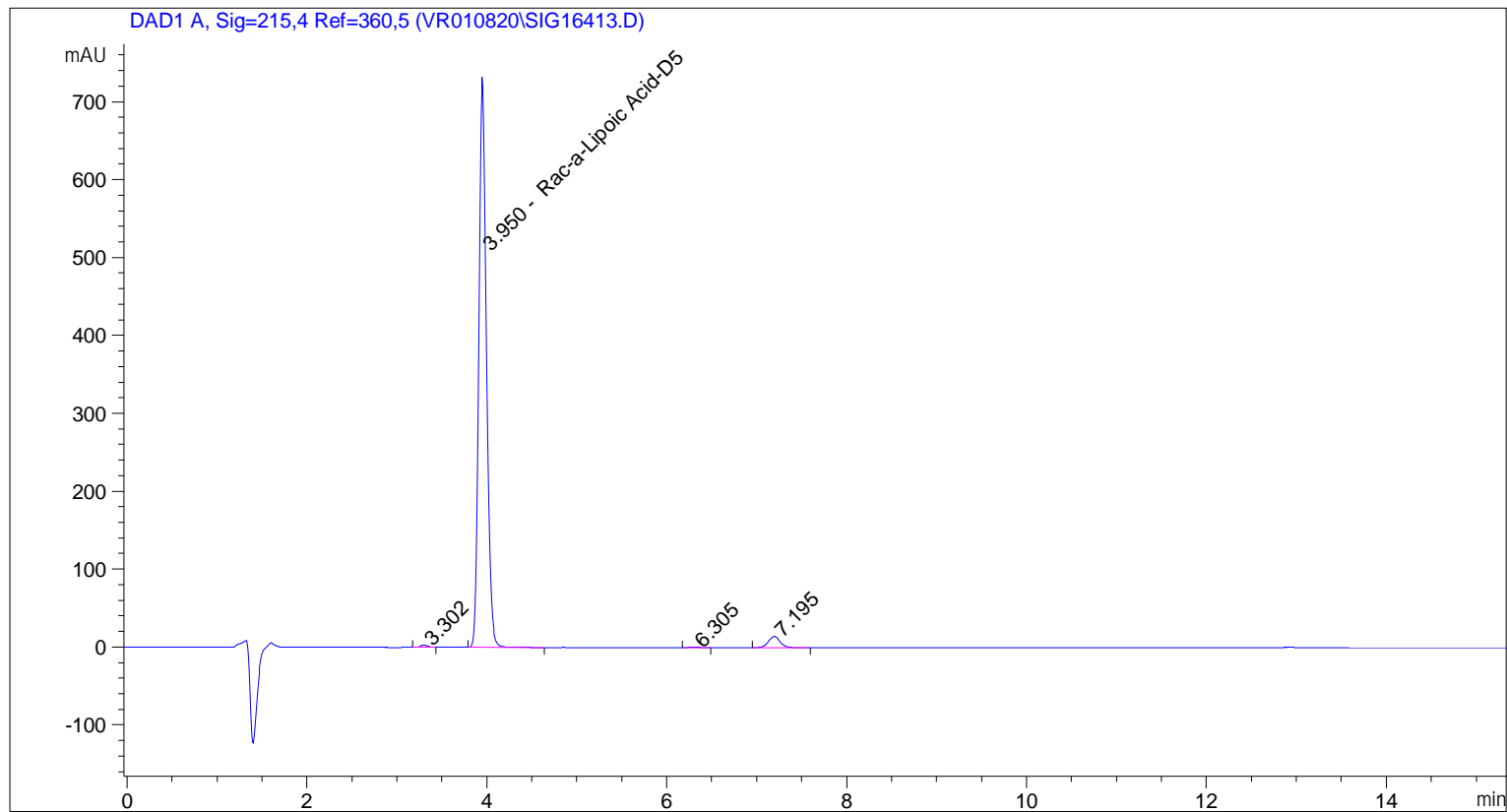
03-Jun-2015, 16:23:13

TOF MS ES-
1.07e3



Expansion and zoom of above.

=====
Acq. Operator : vrusu
Acq. Instrument : Instrument 1 Location : Vial 7
Injection Date : 3/20/2020 2:46:31 PM Inj Volume : 25.0 µl
Acq. Method : C:\CHEM32\1\METHODS\VR032020_105.M
Last changed : 3/20/2020 2:45:09 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR032020_105PM.M
Last changed : 3/20/2020 3:19:50 PM by vrusu



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

Sorted By : Signal
Calib. Data Modified : 3/20/2020 3:19:19 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=215,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	3.302	BB	0.0820	14.51836	0.3210	?
2	3.950	BB	0.0917	4373.15332	96.6803	Rac-a-Lipoic Acid-D5
3	6.305	BB	0.1172	5.07582	0.1122	?
4	7.195	BB	0.1421	130.56850	2.8866	?

Totals : 4523.31599

=====

*** End of Report ***