

<b>Name:</b>	<b>Rapamycin-<sup>13</sup>C, D3 (D0 undetected)</b>
<b>Lot#:</b>	GR-19-165
<b>Test Date:</b>	07/22/2024 (re-test date: 07/22/2029)
<b>CAS No.:</b>	392711-19-2 (D3 form)
<b>MF:</b>	C <sub>50</sub> <sup>13</sup> CH <sub>76</sub> D <sub>3</sub> NO <sub>13</sub>
<b>MW:</b>	918.18
<b>Appearance:</b>	White solid
<b>Purity:</b>	97.0% by HPLC (average of two sample preparations); 99% atom <sup>13</sup> C; 99.5% atom D
<b><sup>1</sup>H-NMR:</b>	Conforms
<b>MS-ESI (-)</b>	Conforms (shows peaks at m/z = 916.57 [M-H] <sup>-</sup> , 962.58 [M+HCOOH-H] <sup>-</sup> )
<b>Storage</b>	Store at -20°C in a dry place away from direct sunlight under nitrogen

Approved by:

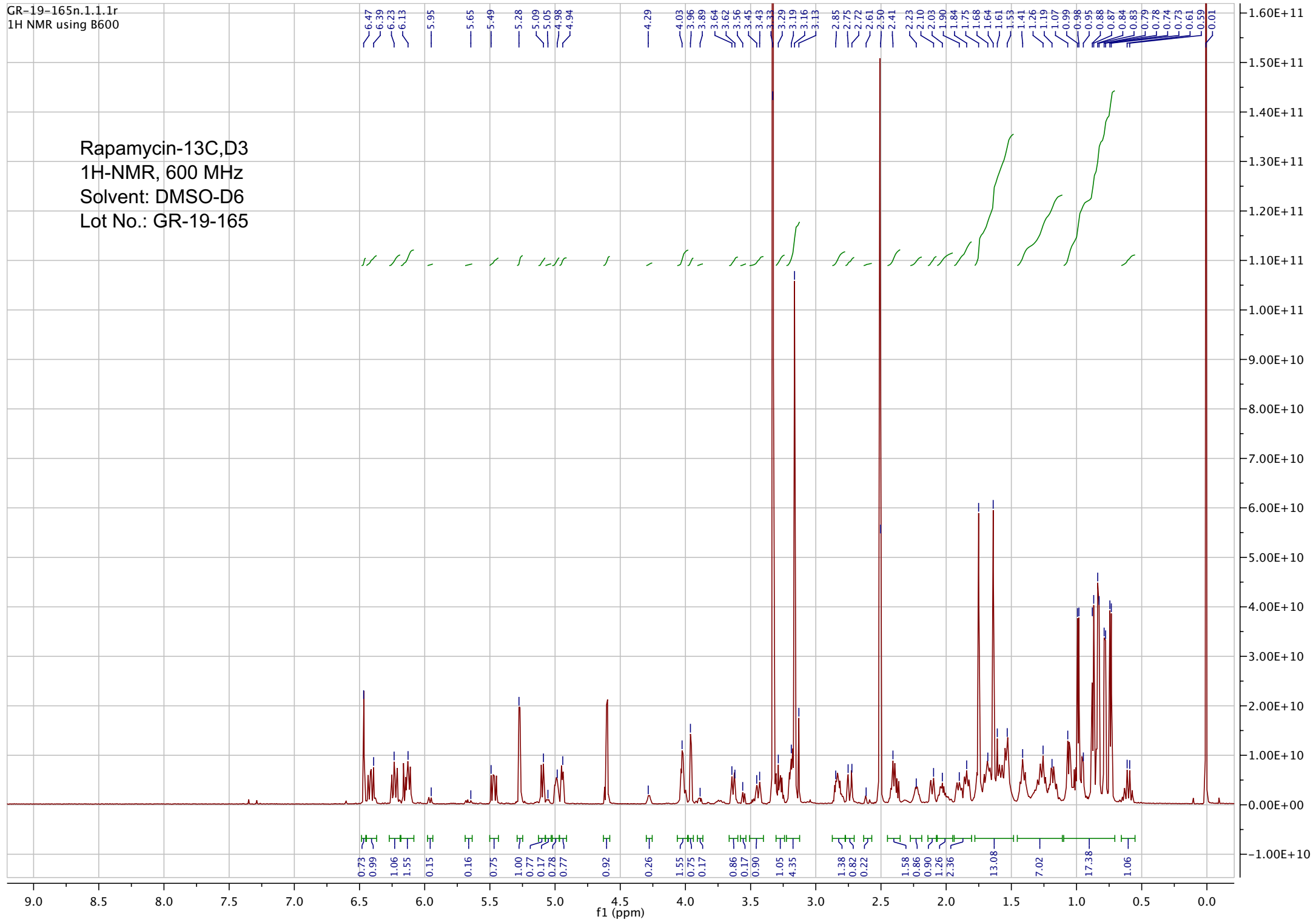
Date: 07/24/2024



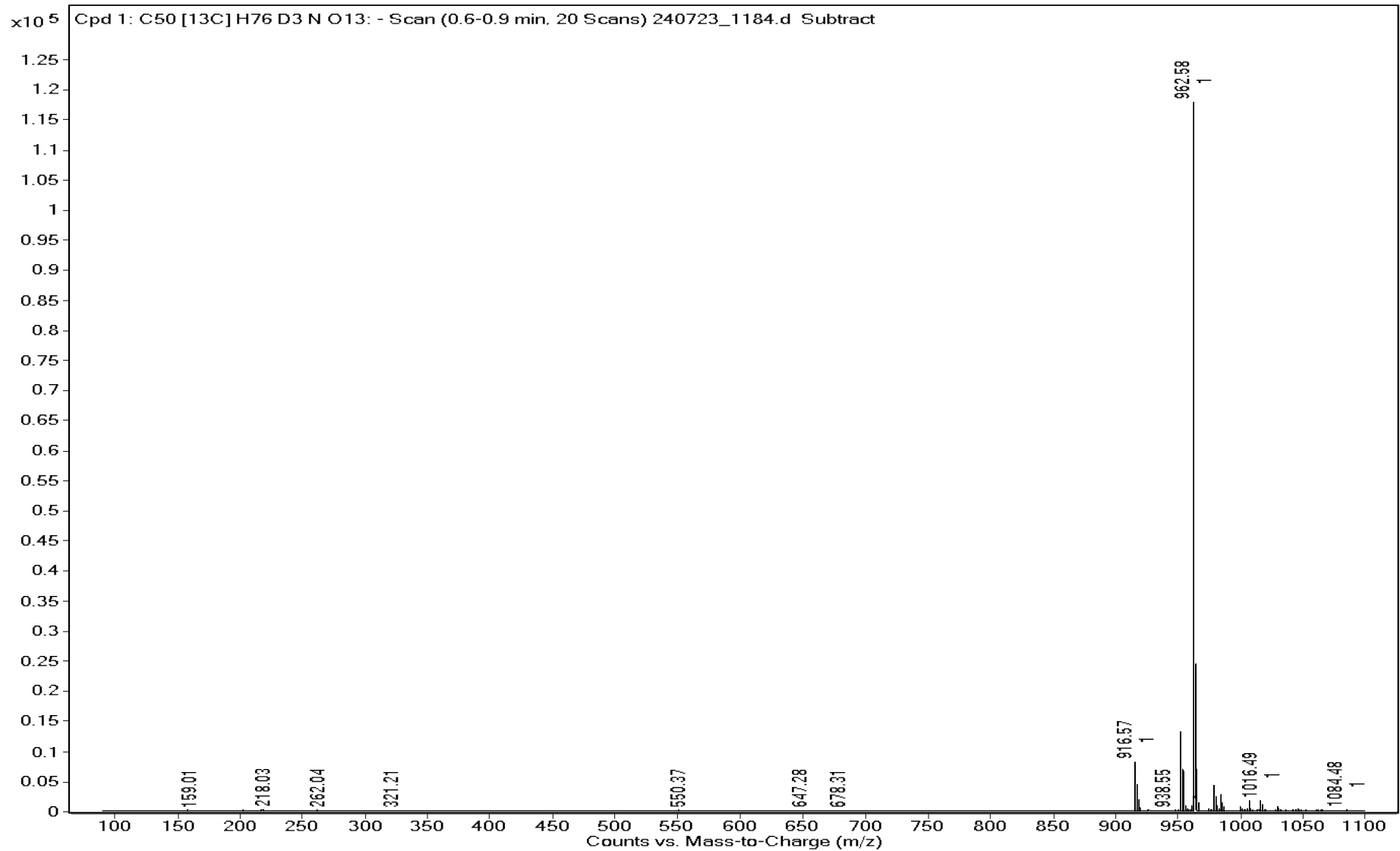
Viorica Rusu, QC/QA Manager

GR-19-165n.1.1.1r  
1H NMR using B600

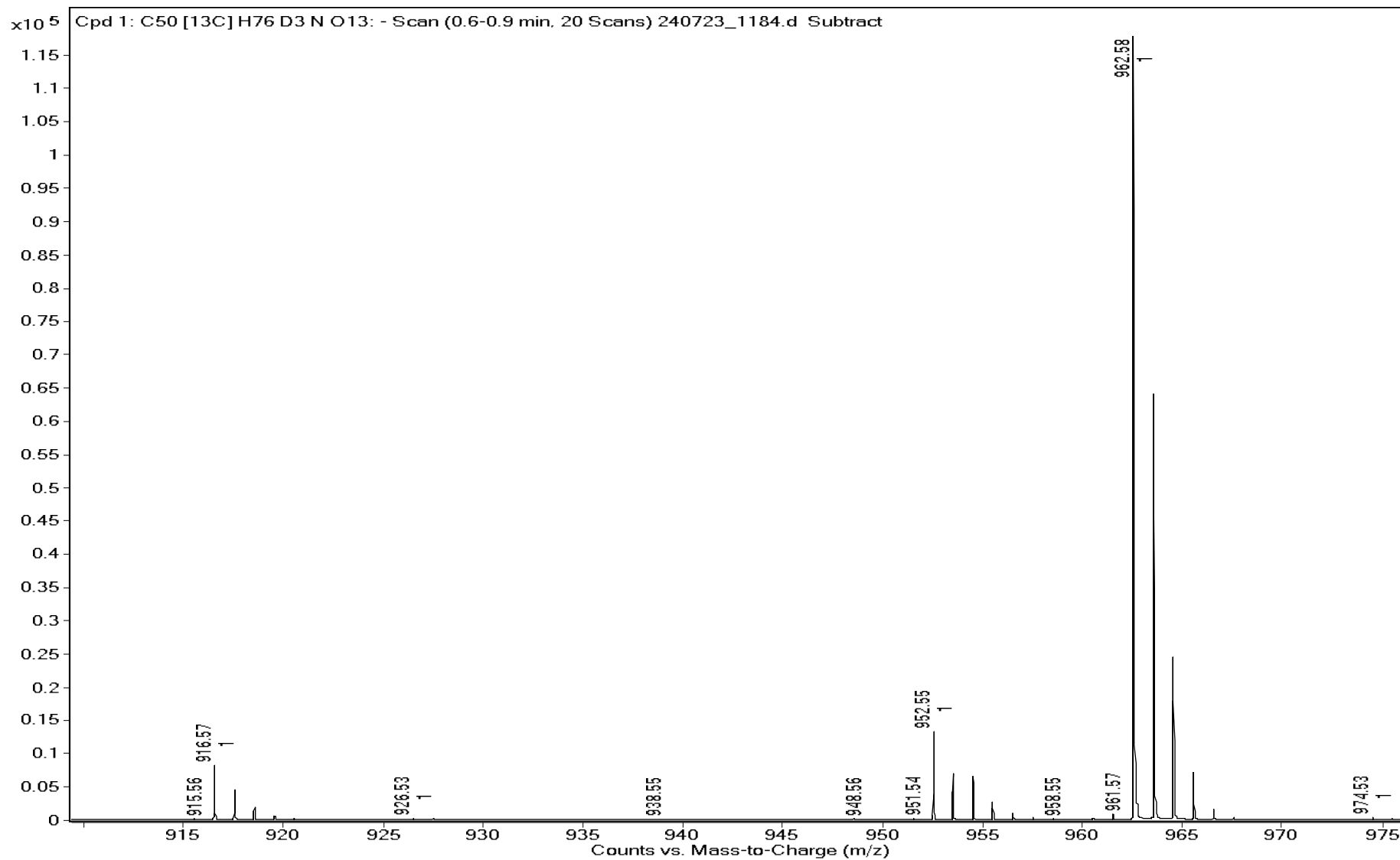
Rapamycin-13C,D3  
1H-NMR, 600 MHz  
Solvent: DMSO-D6  
Lot No.: GR-19-165



<b>Sample Name</b>	GR-19-165	<b>Data File</b>	240723_1184.d	<b>Acq Method</b>	HRMS_Negative.m
<b>DA Method</b>	AIMS_Accurate_Mass.m	<b>Instrument</b>	Agilent 6538 UHD	<b>Acq Date, Time</b>	23/07/2024 10:22:59 AM
<b>Comment</b>	ESI-				



<b>Sample Name</b>	GR-19-165	<b>Data File</b>	240723_1184.d	<b>Acq Method</b>	HRMS_Negative.m
<b>DA Method</b>	AIMS_Accurate_Mass.m	<b>Instrument</b>	Agilent 6538 UHD	<b>Acq Date, Time</b>	23/07/2024 10:22:59 AM
<b>Comment</b>	ESI-				



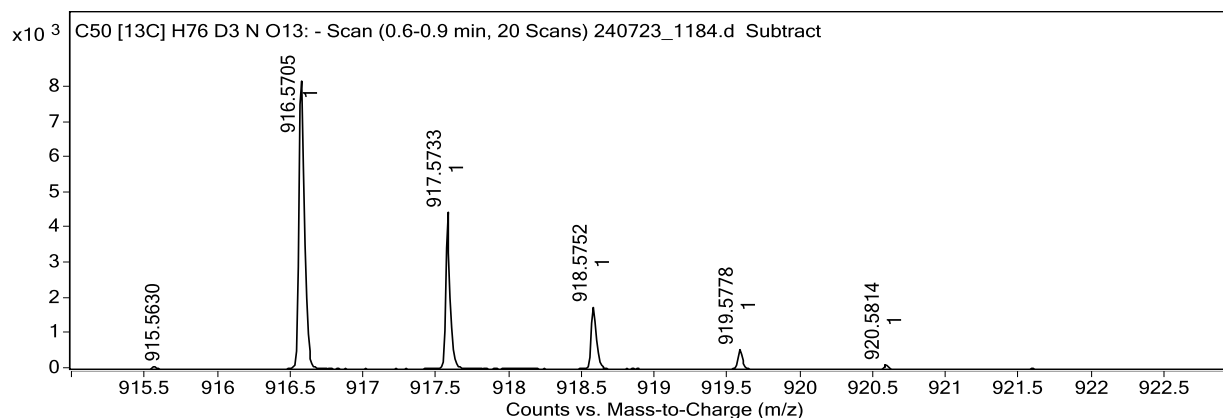
<b>Sample Name</b>	GR-19-165	<b>Data File</b>	240723_1184.d
<b>Acq Method</b>	HRMS_Negative.m	<b>DA Method</b>	AIMS_Accurate_Mass.m
<b>Instrument</b>	Agilent 6538 UHD	<b>Acq Date, Time</b>	23/07/2024 10:22:59 AM
<b>Comment</b>	ESI-		

### Target Ion Species

Ion Species	m/z	Ionic Formula
(M-H) <sup>-</sup>	916.5705	C50 [13C] H75 D3 N O13

### MFG Calculator Results

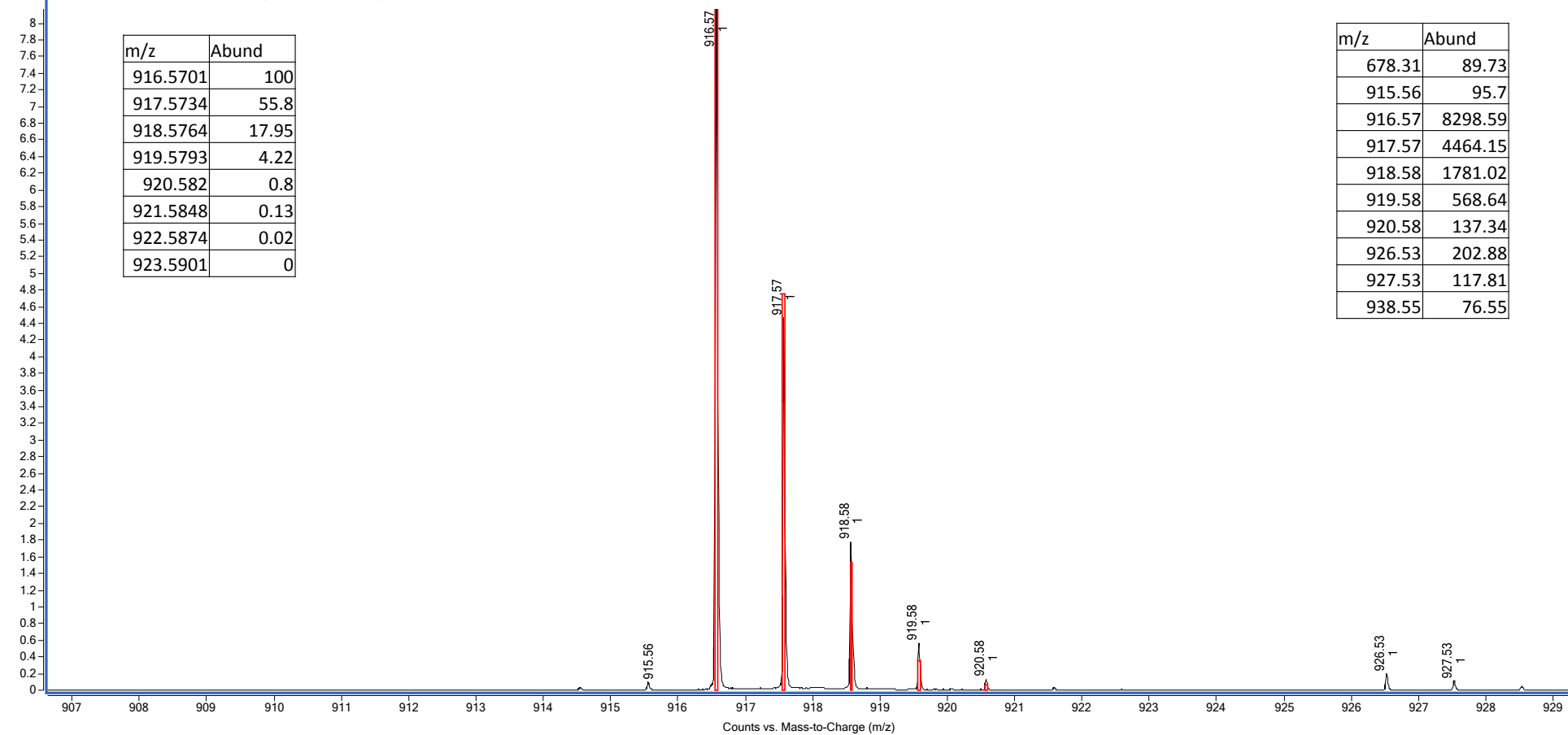
Target m/z	Ionic Formula	Calc m/z	+/- (mDa)	+/- (ppm)	DBE	MFG Score
916.5705	C50 [13C] H75 D3 N O13	916.5701	0.4	0.4	13.0	95.44
916.5705	C51 [13C] H71 D3 N5 O9	916.5714	-0.9	-1.0	18.0	92.57
916.5705	C38 [13C] H79 D3 N3 O20	916.5719	-1.4	-1.5	0.0	88.90
916.5705	C46 [13C] H71 D3 N7 O11	916.5674	3.1	3.4	14.0	87.93
916.5705	C52 [13C] H67 D3 N9 O5	916.5727	-2.2	-2.4	23.0	86.67
916.5705	C39 [13C] H75 D3 N7 O16	916.5732	-2.7	-2.9	5.0	85.22
916.5705	C45 [13C] H75 D3 N3 O15	916.5660	4.5	4.9	9.0	82.12
916.5705	C59 [13C] H63 D3 N9	916.5669	3.6	3.9	32.0	78.83
916.5705	C58 [13C] H67 D3 N5 O4	916.5655	5.0	5.5	27.0	74.04



### Predicted Isotope Match Table

Isotope	m/z	Calc m/z	Diff (mDa)	Abund (%)	Calc Abund (%)	+/-
1	916.5705	916.5701	0.4	100.0	100.0	0.0
2	917.5733	917.5734	-0.1	53.8	55.8	2.0
3	918.5752	918.5764	-1.2	21.5	17.9	-3.6
4	919.5778	919.5793	-1.5	6.9	4.2	-2.7
5	920.5814	920.5820	-0.6	1.7	0.8	-0.9

Cpd 1: C50 [13C] H76 D3 N O13: - Scan (0.6-0.9 min, 20 Scans) 240723\_1184.d Subtract



m/z	Abund
916.5701	100
917.5734	55.8
918.5764	17.95
919.5793	4.22
920.582	0.8
921.5848	0.13
922.5874	0.02
923.5901	0

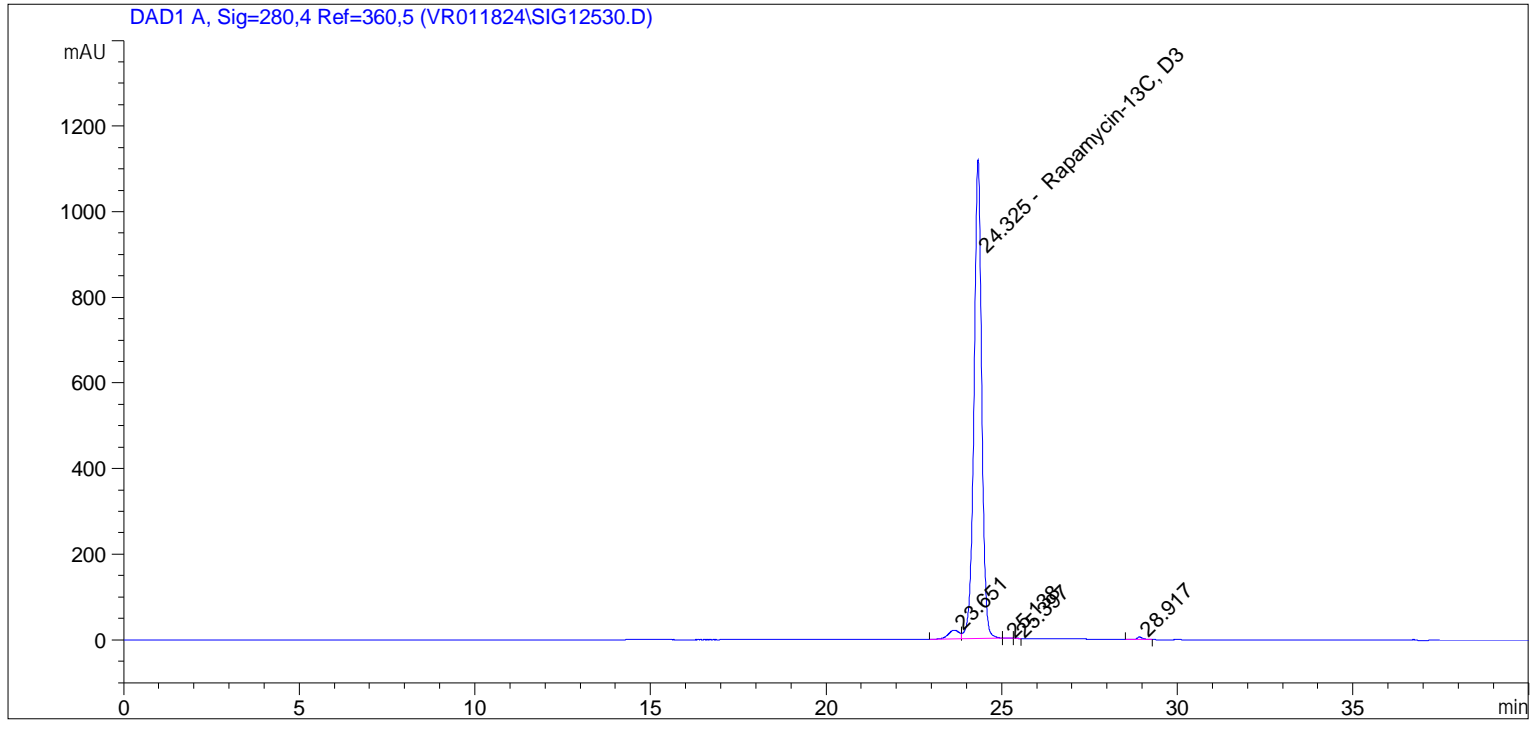
m/z	Abund
678.31	89.73
915.56	95.7
916.57	8298.59
917.57	4464.15
918.58	1781.02
919.58	568.64
920.58	137.34
926.53	202.88
927.53	117.81
938.55	76.55

Sample Name: GR-19-165

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Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 44
Injection Date  : 7/22/2024 9:23:42 AM
                                           Inj Volume : 10.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR072224_165.M
Last changed    : 7/22/2024 9:22:37 AM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR072224_165PM.M
Last changed    : 7/22/2024 11:43:23 AM by vrusu
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                          Area Percent Report
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Sorted By           :      Signal
Calib. Data Modified :      Monday, July 22, 2024 11:33:27 AM
Multiplier:         :      1.603e3
Dilution:           :      1.0000
Use Multiplier & Dilution Factor with ISTDs

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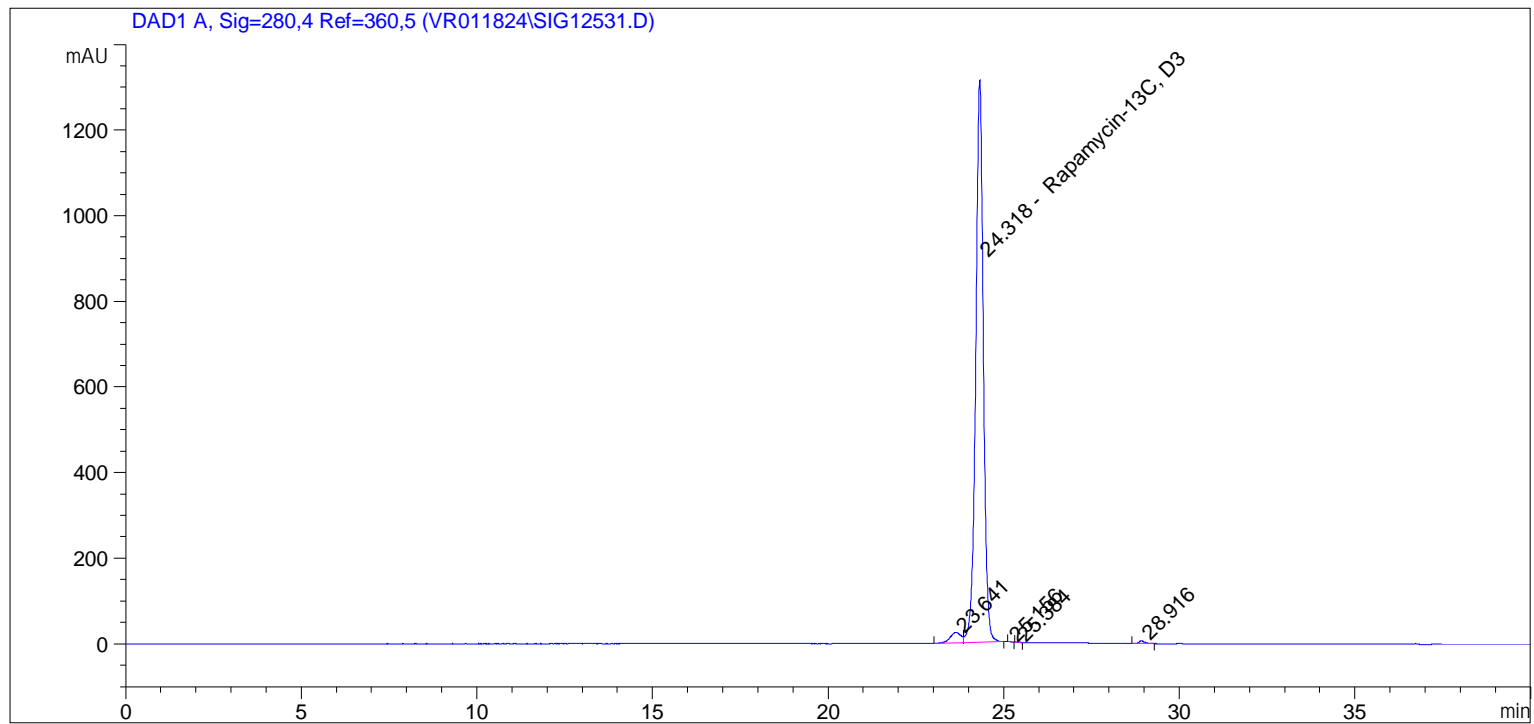
Signal 1: DAD1 A, Sig=280,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	23.651	BV	0.3333	442.70773	2.5030	?
2	24.325	VB	0.2331	1.71664e4	97.0563	Rapamycin-13C, D3
3	25.138	BB	0.1387	5.55767	0.0314	?
4	25.397	BB	0.1347	3.24541	0.0183	?
5	28.917	BB	0.1505	69.13931	0.3909	?

Totals : 1.76871e4

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

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Acq. Operator : vrusu  
Acq. Instrument : Instrument 1 Location : Vial 45  
Injection Date : 7/22/2024 10:08:07 AM Inj Volume : 10.0 µl  
Acq. Method : C:\CHEM32\1\METHODS\VR072224\_165.M  
Last changed : 7/22/2024 10:06:57 AM by vrusu  
Analysis Method : C:\CHEM32\1\METHODS\VR072224\_165PM.M  
Last changed : 7/22/2024 11:43:23 AM by vrusu



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

Sorted By : Signal  
Calib. Data Modified : Monday, July 22, 2024 11:33:27 AM  
Multiplier: : 1.603e3  
Dilution: : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=280,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	23.641	BV	0.3274	520.64948	2.5487	?
2	24.318	VB	0.2281	1.98220e4	97.0347	Rapamycin-13C, D3
3	25.156	BB	0.1139	2.89490	0.0142	?
4	25.384	BB	0.1310	3.08651	0.0151	?
5	28.916	BB	0.1506	79.10722	0.3873	?

Totals : 2.04277e4

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