

Name: 20 α / β -Dihydrodydrogesterone ~1:1 mixture
Lot#: GR-19-083ab
Test Date: 04/23/2024 (re-test date: 04/23/2029)
CAS No.: 4243-74-7 + 4243-73-6
MF: C₂₁H₃₀O₂
MW: 314.47
Appearance: Off-white solid
Purity: 99.6% by HPLC (sum of two peaks; average of two sample preparations)
¹H-NMR: Conforms
MS-DART (+) Conforms (shows peak at m/z = 315.2 [M+H]⁺)
Storage Store at -18°C in a dry place away from direct sunlight

Approved by:

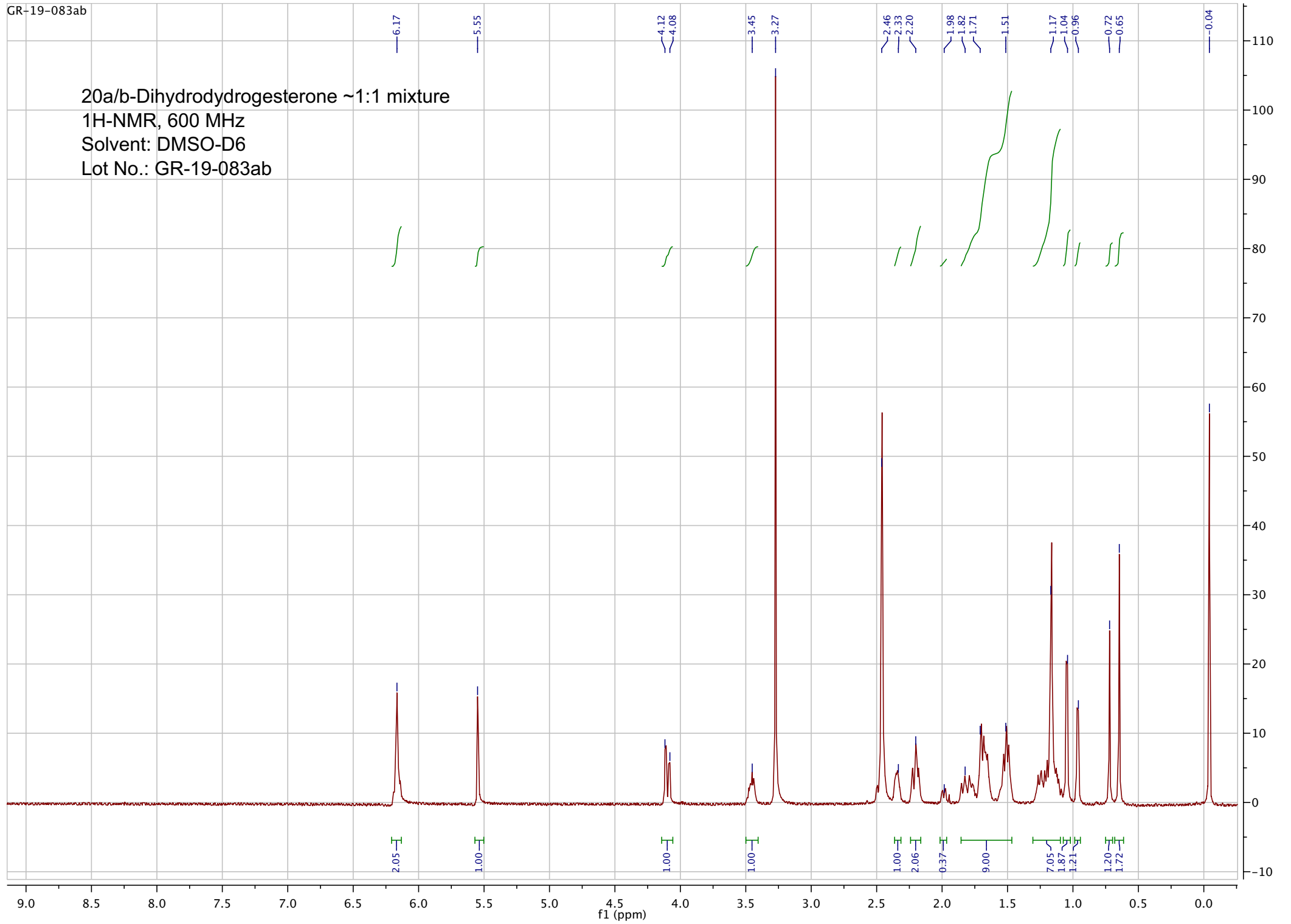
Date: 04/23/2024

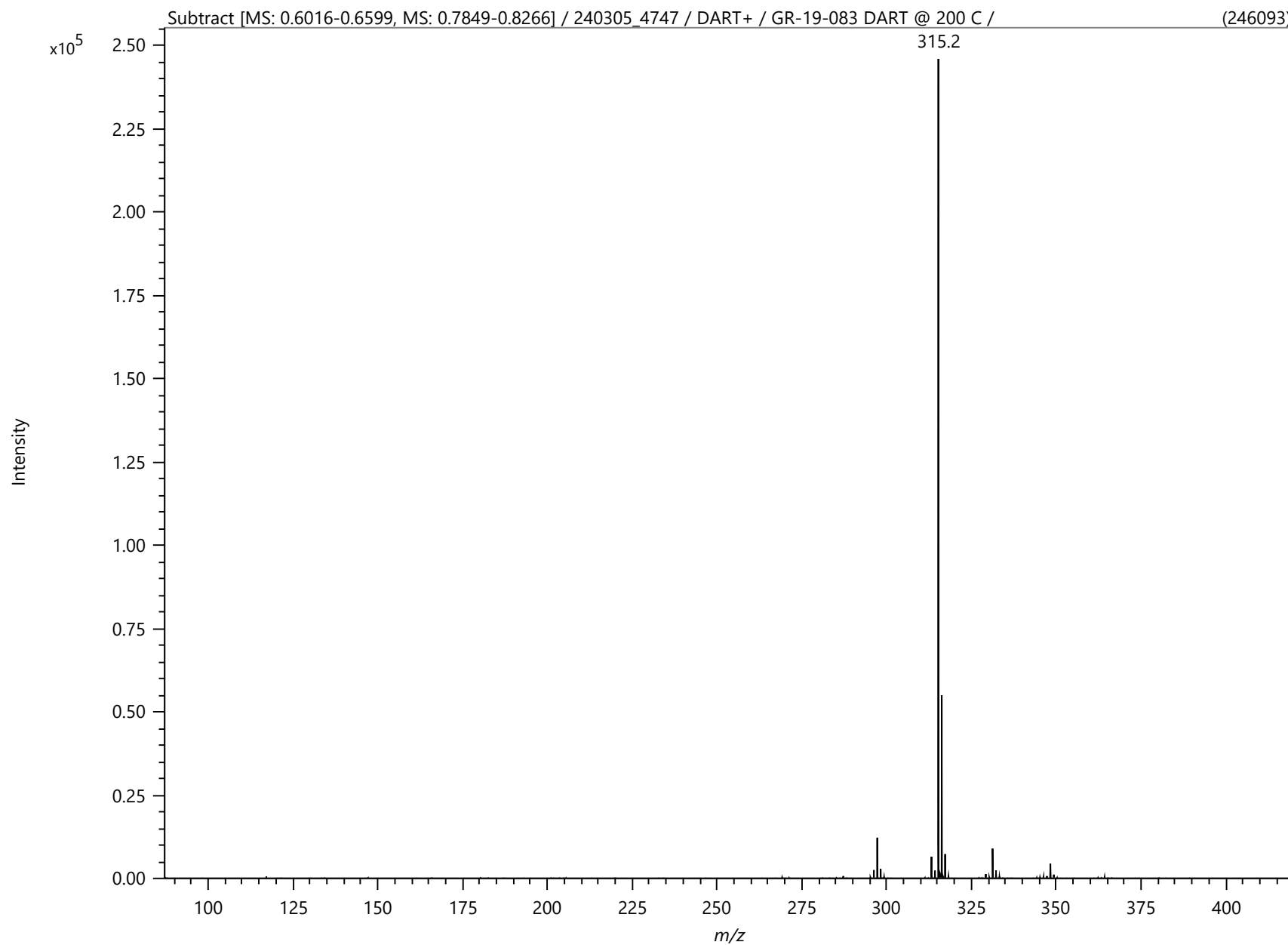


Viorica Rusu, QC/QA Manager

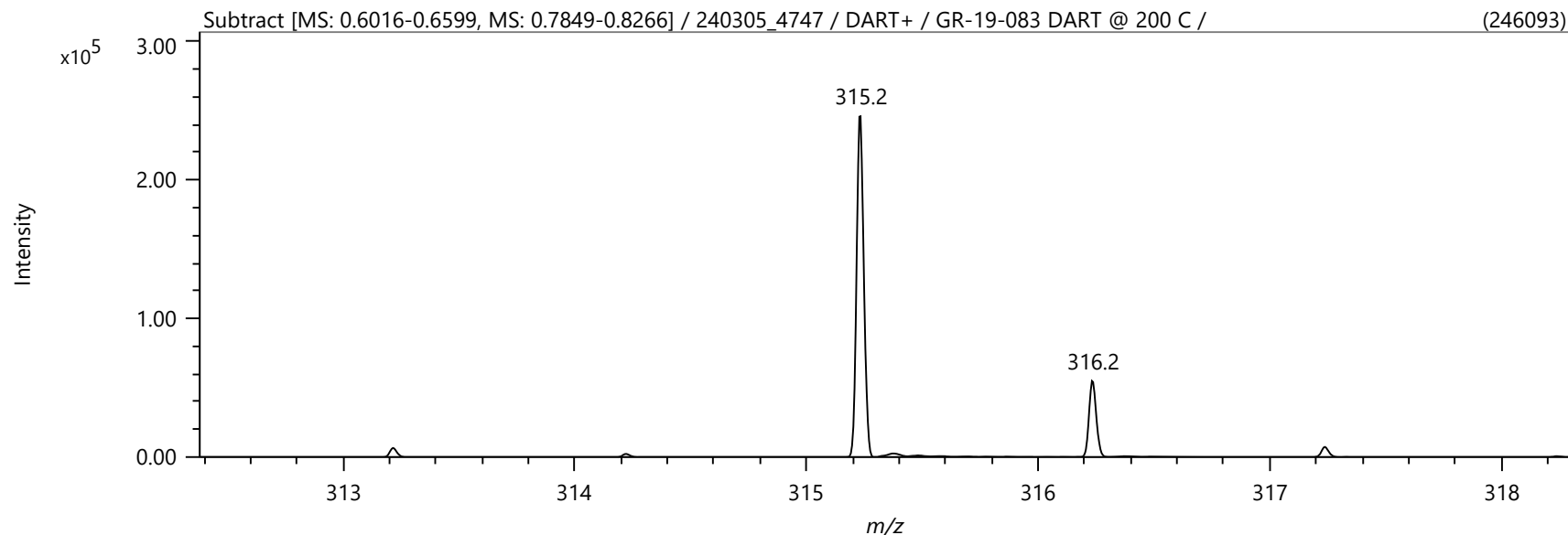
GR-19-083ab

20a/b-Dihydrodydrogesterone ~1:1 mixture
1H-NMR, 600 MHz
Solvent: DMSO-D6
Lot No.: GR-19-083ab





Spectrum



Elemental Composition

Parameters

Tolerance: ±5.00 mDa
 Electron: Odd/Even
 Charge: +1
 DBE: -1.5 - 100.0

Elements Set 1:

Symbol	C	H	O	N
Min	0	0	0	0
Max	100	200	20	10

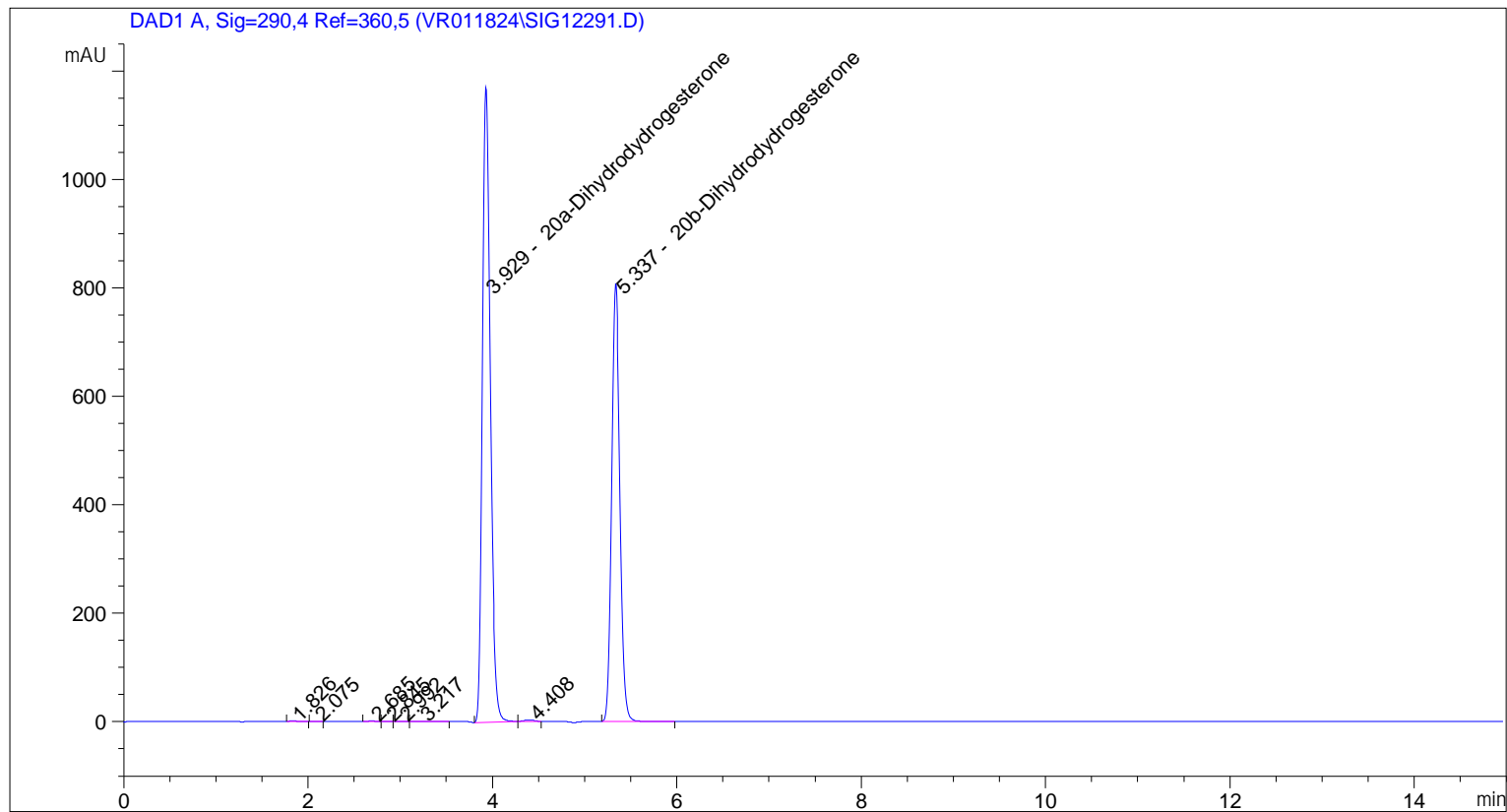
Results

Mass	Intensity	Formula	Calculated Mass	Mass Difference [mDa]	Mass Difference [ppm]	DBE
315.23262	246093.30	C ₂₁ H ₃₁ O ₂	315.23186	0.76	2.41	6.5
		C ₈ H ₂₉ N ₉ O ₄	315.23370	-1.09	-3.44	-1.0
		C ₁₉ H ₂₉ N ₃ O	315.23051	2.10	6.67	7.0
		C ₁₀ H ₃₁ N ₆ O ₅	315.23504	-2.43	-7.70	-1.5
		C ₁₇ H ₂₇ N ₆	315.22917	3.44	10.93	7.5
		C ₁₁ H ₂₇ N ₁₀ O	315.23638	-3.77	-11.95	3.5

Mass	Intensity	Formula	Calculated Mass	Mass Difference [mDa]	Mass Difference [ppm]	DBE
		C16 H31 N2 O4	315.22783	4.78	15.17	2.5

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Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 62
Injection Date  : 4/23/2024 2:14:23 PM
                                           Inj Volume : 10.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR042324_083AB.M
Last changed    : 4/23/2024 2:13:15 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR042324_083AB_PM.M
Last changed    : 4/23/2024 3:05:21 PM by vrusu
  
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Area Percent Report

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Sorted By           : Signal
Calib. Data Modified : 4/23/2024 3:03:18 PM
Multiplier:         : 1.0000
Dilution:           : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
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Signal 1: DAD1 A, Sig=290,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	1.826	BB	0.0724	7.83806	0.0646	?
2	2.075	BB	0.0585	2.26251	0.0187	?
3	2.685	BV	0.0838	8.78139	0.0724	?
4	2.845	VV	0.0671	4.27120	0.0352	?
5	2.992	VB	0.0749	3.56918	0.0294	?
6	3.217	BH	0.1303	5.77927	0.0477	?
7	3.929	HB	0.0913	6963.06738	57.4180	20a-Dihydrodydrogesterone
8	4.408	HHA	0.1254	21.01377	0.1733	?

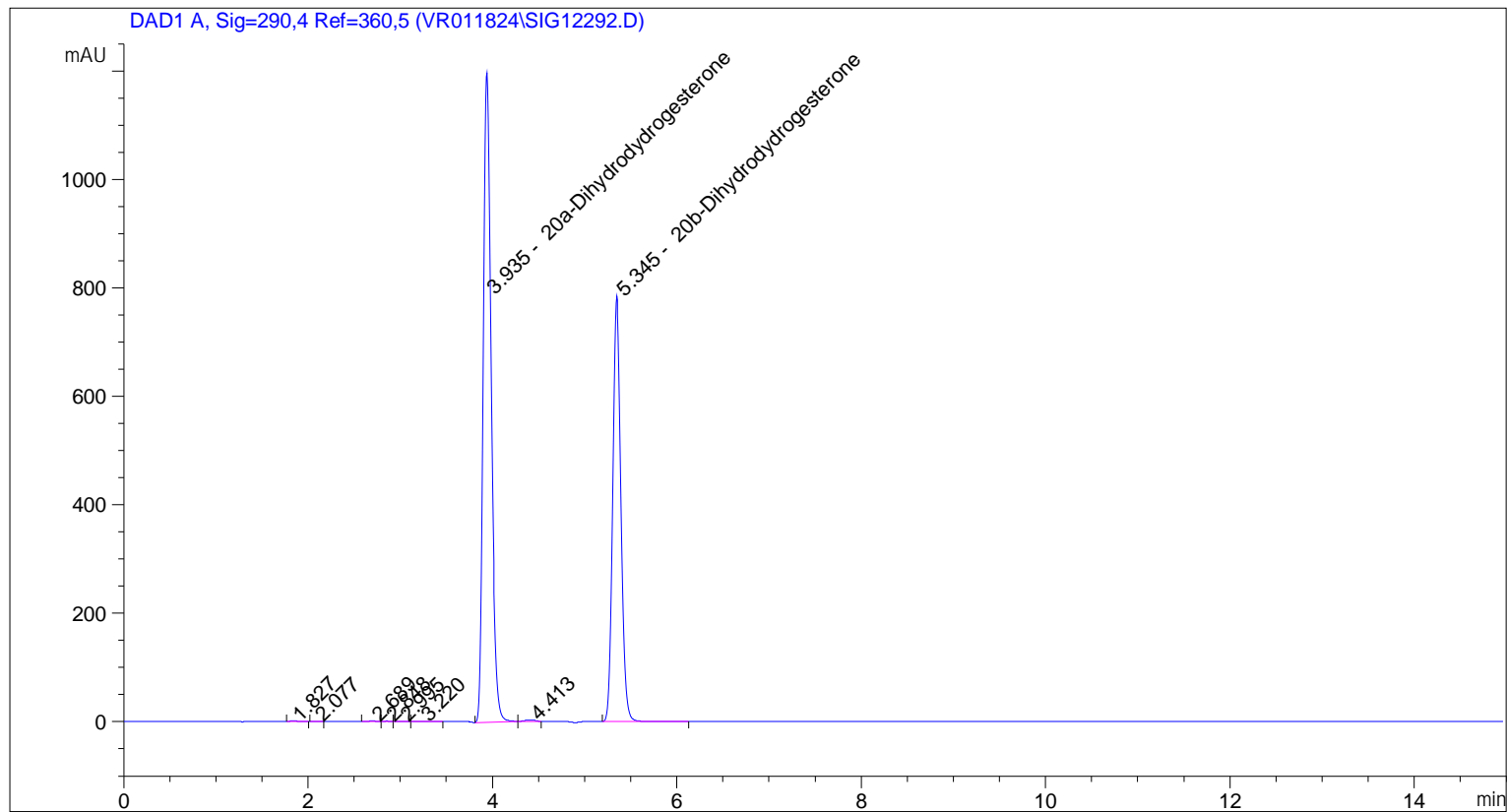
Sample Name: GR-19-083ab

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
9	5.337	HH	0.0977	5110.39404	42.1407	20b-Dihydrodydrogesterone

Totals : 1.21270e4

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*** End of Report ***

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Acq. Operator : vrusu
Acq. Instrument : Instrument 1 Location : Vial 63
Injection Date : 4/23/2024 2:34:30 PM Inj Volume : 10.0 µl
Acq. Method : C:\CHEM32\1\METHODS\VR042324_083AB.M
Last changed : 4/23/2024 2:33:21 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR042324_083AB_PM.M
Last changed : 4/23/2024 3:05:21 PM by vrusu



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Area Percent Report
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Sorted By : Signal
Calib. Data Modified : 4/23/2024 3:03:18 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=290,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	1.827	BB	0.0711	8.49457	0.0699	?
2	2.077	BB	0.0572	2.22410	0.0183	?
3	2.689	BV	0.0821	9.04063	0.0744	?
4	2.848	VB	0.0667	4.10901	0.0338	?
5	2.995	BB	0.0742	3.41319	0.0281	?
6	3.220	BB	0.1180	5.47199	0.0450	?
7	3.935	HB	0.0915	7133.54053	58.7048	20a-Dihydrodydrogesterone
8	4.413	HHA	0.1241	21.09587	0.1736	?

Sample Name: GR-19-083ab spl-2

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
9	5.345	HH	0.0978	4964.14551	40.8520	20b-Dihydrodydrogesterone

Totals : 1.21515e4

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*** End of Report ***