

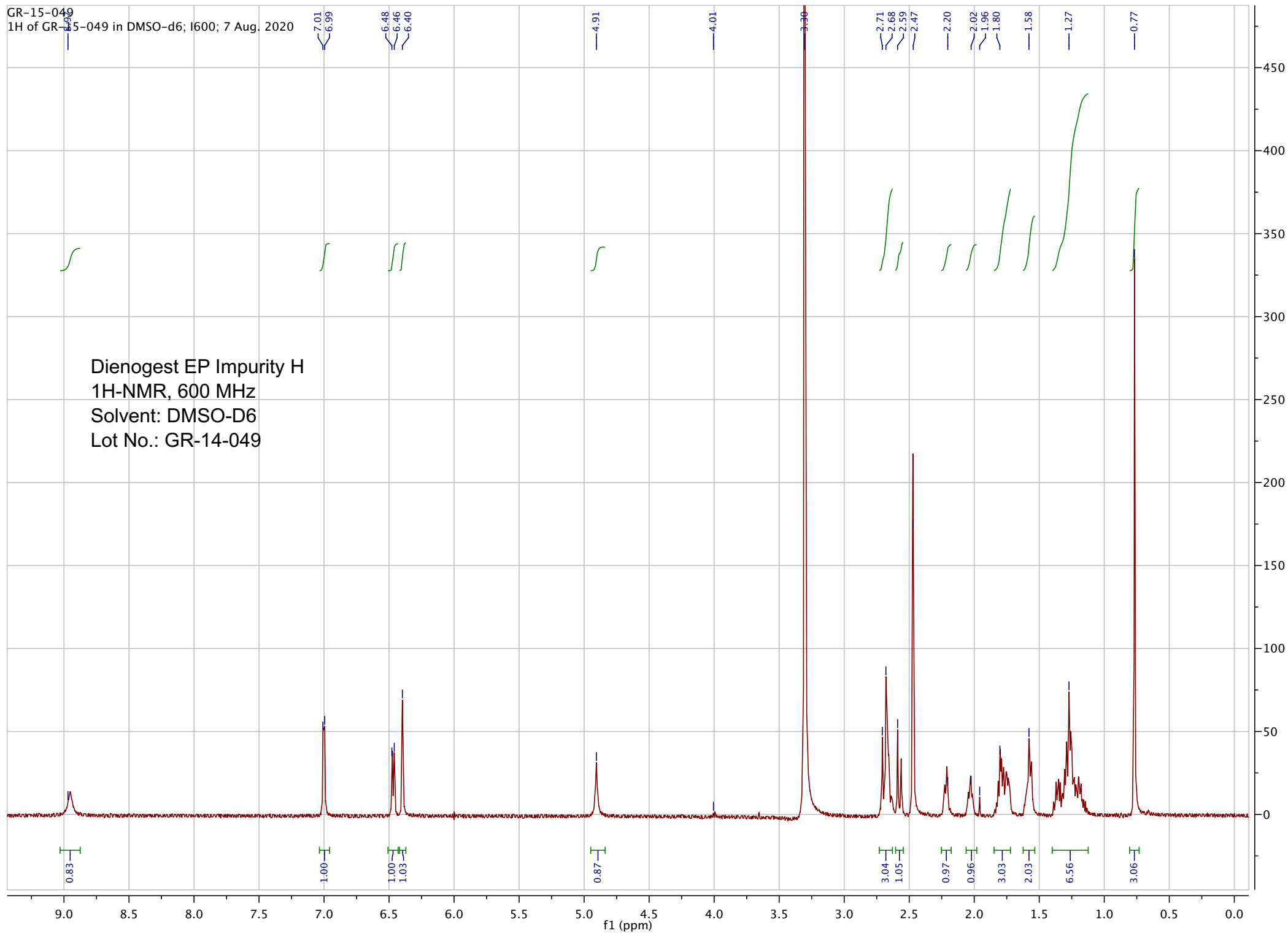
Name:	Dienogest Impurity H
Lot#:	GR-15-049
Test Date:	08/06/2025 (re-test date: 08/06/2030)
CAS No.:	16669-06-0
MF:	C ₂₀ H ₂₅ NO ₂
MW:	311.40
Appearance:	Off-White Solid
Purity:	98.2% by HPLC (average of two sample preparations)
¹H-NMR:	Conforms (shows a trace of EtOAc)
MS-ESI (+)	Conforms (shows peaks at m/z = 312.20 [M+H] ⁺ and 294.19 [M-H ₂ O+H] ⁺ ; note: under the MS conditions this compound undergoes dehydrogenation illustrated by the presence of the peak at m/z = 310.18 [M-H ₂ +H] ⁺)
MS-ESI (-)	Conforms (shows peak at m/z = 310.18 [M-H] ⁻)
Storage	Store at 0-8°C in a dry place away from direct sunlight

Approved by:

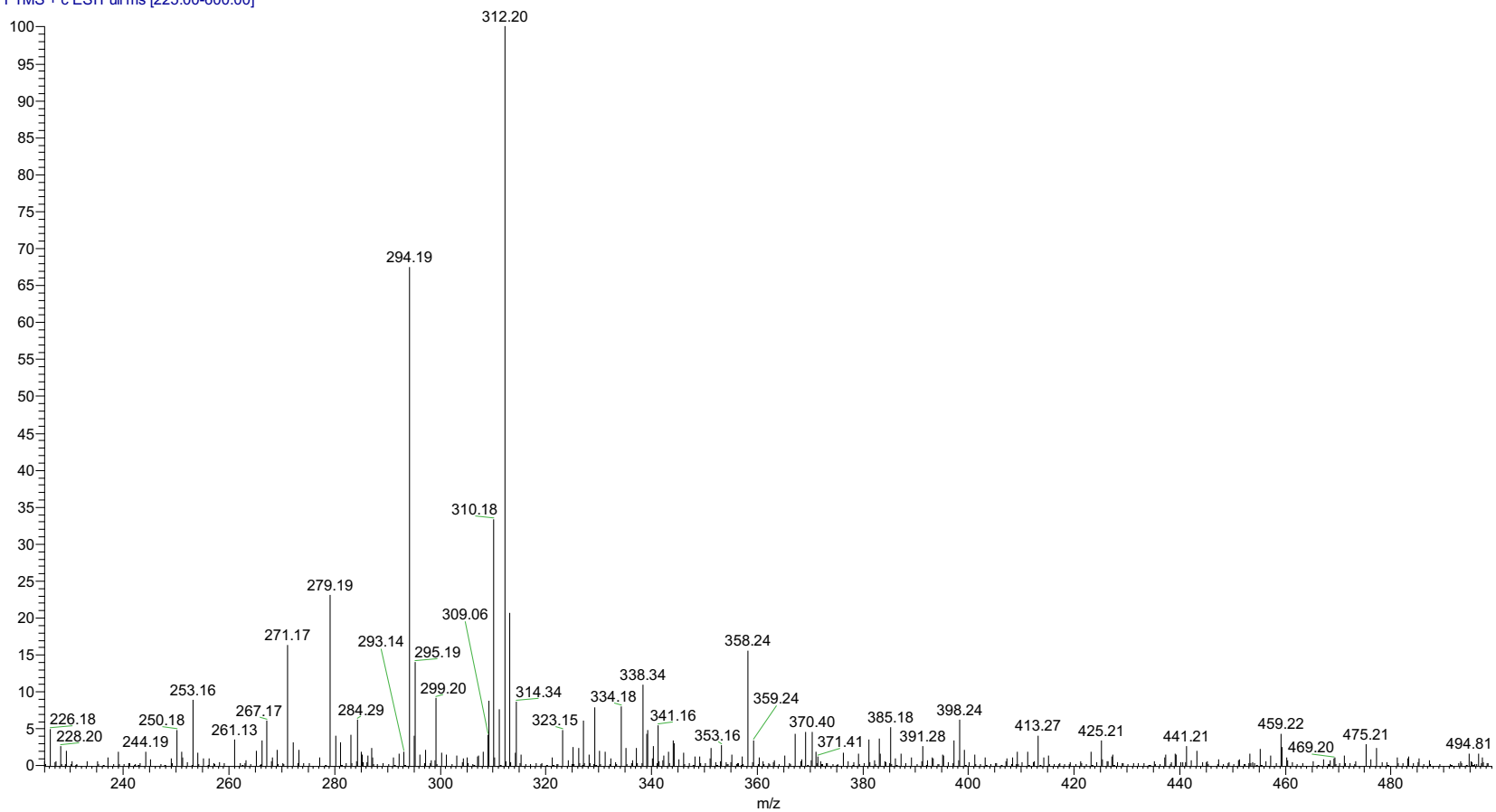
Date: 08/06/2025

Viorica Rusu, QC/QA Manager

GR-15-049
1H of GR-15-049 in DMSO-d6; 1600; 7 Aug. 2020

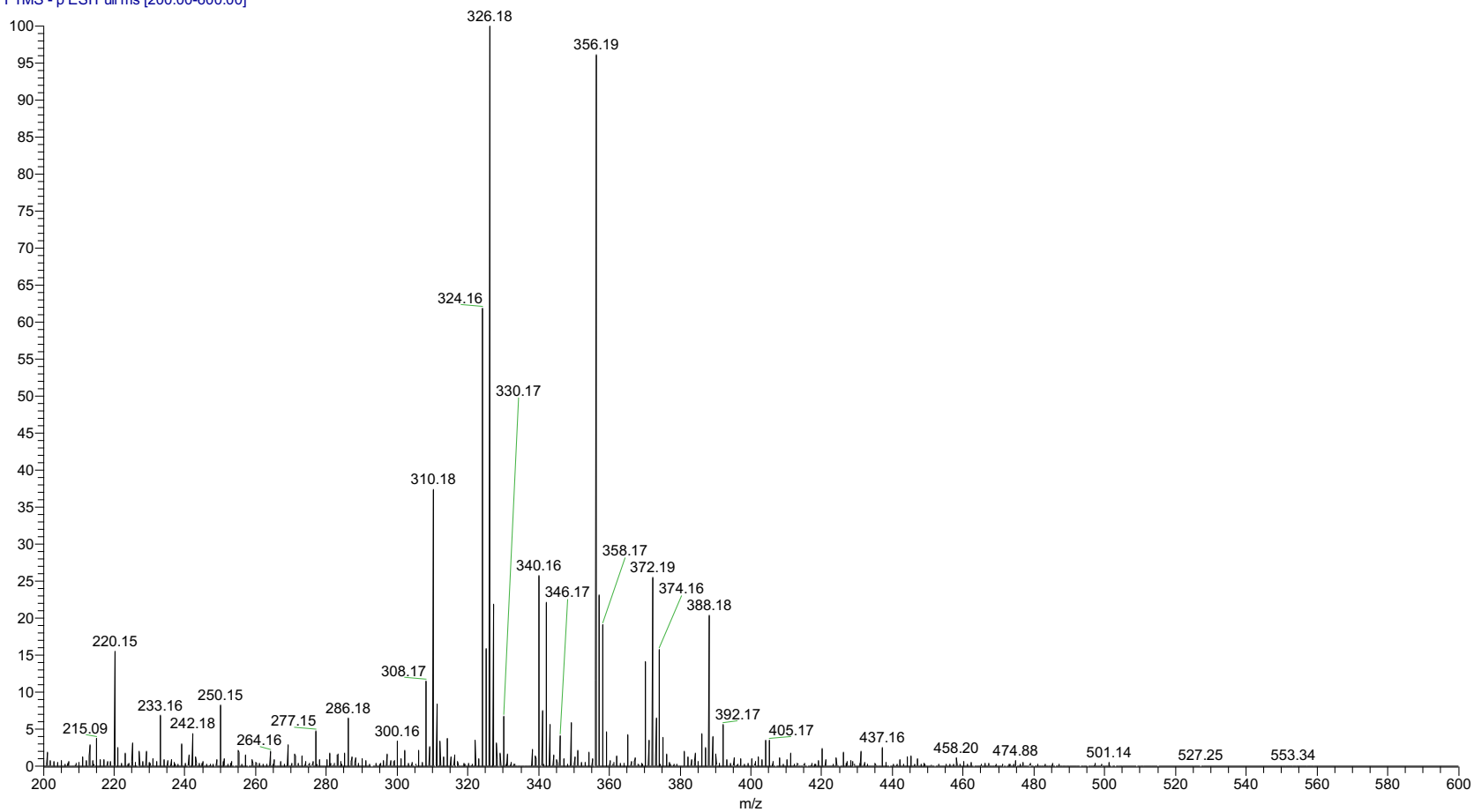


pp_2020_017_GR_15_049_pos_202 #667 RT: 2.78 AV: 1 NL: 6.84
T: FTMS + c ESI Full ms [225.00-600.00]



ESI-MS spectrum for sample GR-15-049. Shows monoisotopic $[M+H]^+$ mass.

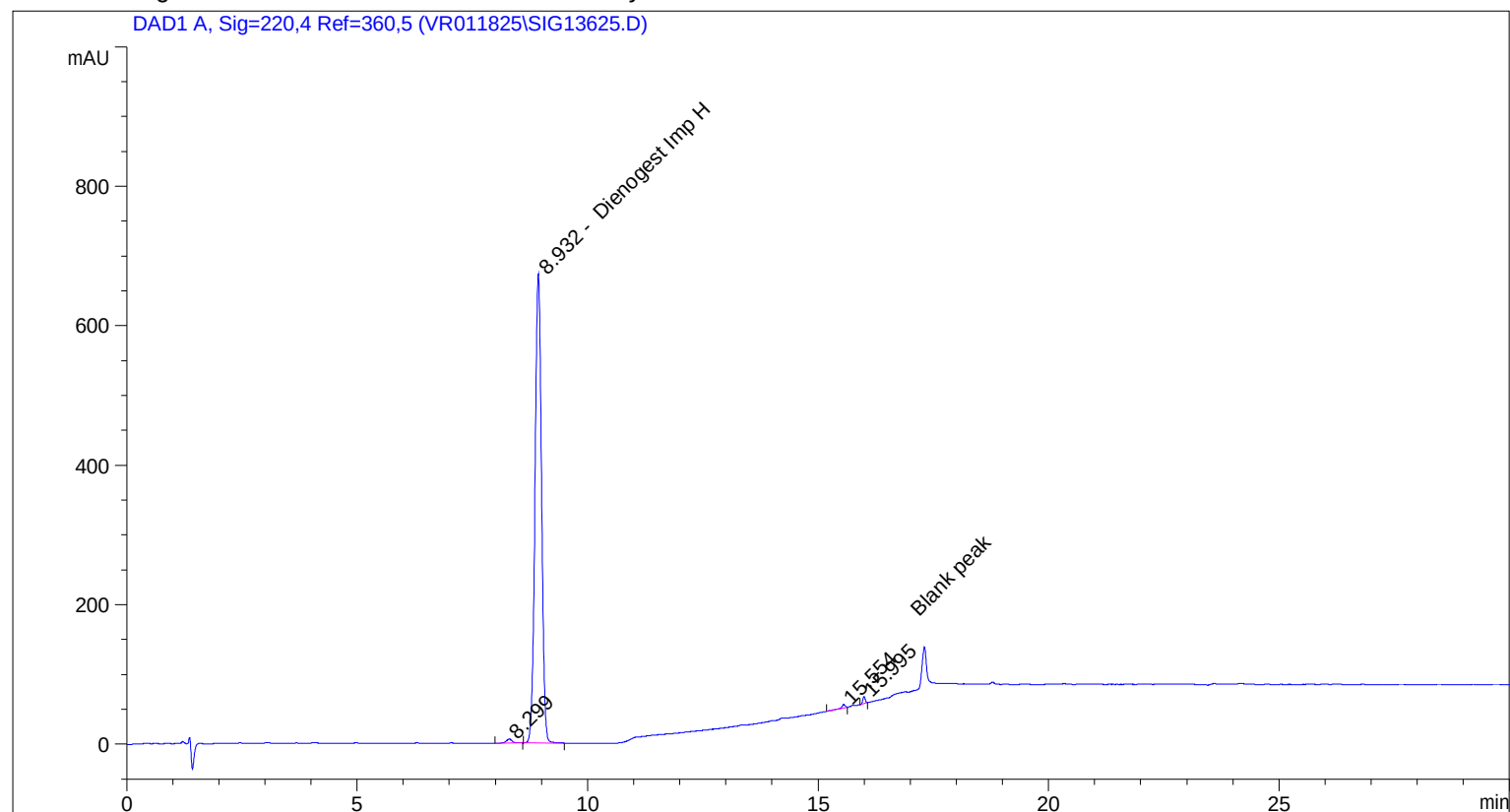
pp_2020_017_GR15049_neg_003 #281 RT: 2.04 AV: 1 NL: 1.43E5
T: FTMS - p ESI Full ms [200.00-600.00]



ESI-MS spectrum for sample GR-15-049. Shows monoisotopic $[M-H]^-$ mass.

Sample Name: GR-15-049 spl-2

```
=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 5
Injection Date  : 8/5/2025 4:00:03 PM
                                           Inj Volume : 10.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR080525_049.M
Last changed    : 8/5/2025 3:58:52 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR080625_049PM.M
Last changed    : 8/6/2025 9:34:08 AM by vrusu
=====
```



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

```
Sorted By           :      Signal
Calib. Data Modified :      8/6/2025 9:33:51 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	8.299	BB	0.1473	55.69350	0.8276	?
2	8.932	BB	0.1527	6613.27539	98.2717	Dienogest Imp H
3	15.554	BB	0.0748	24.16798	0.3591	?
4	15.995	BB	0.0573	36.44852	0.5416	?

Totals : 6729.58539

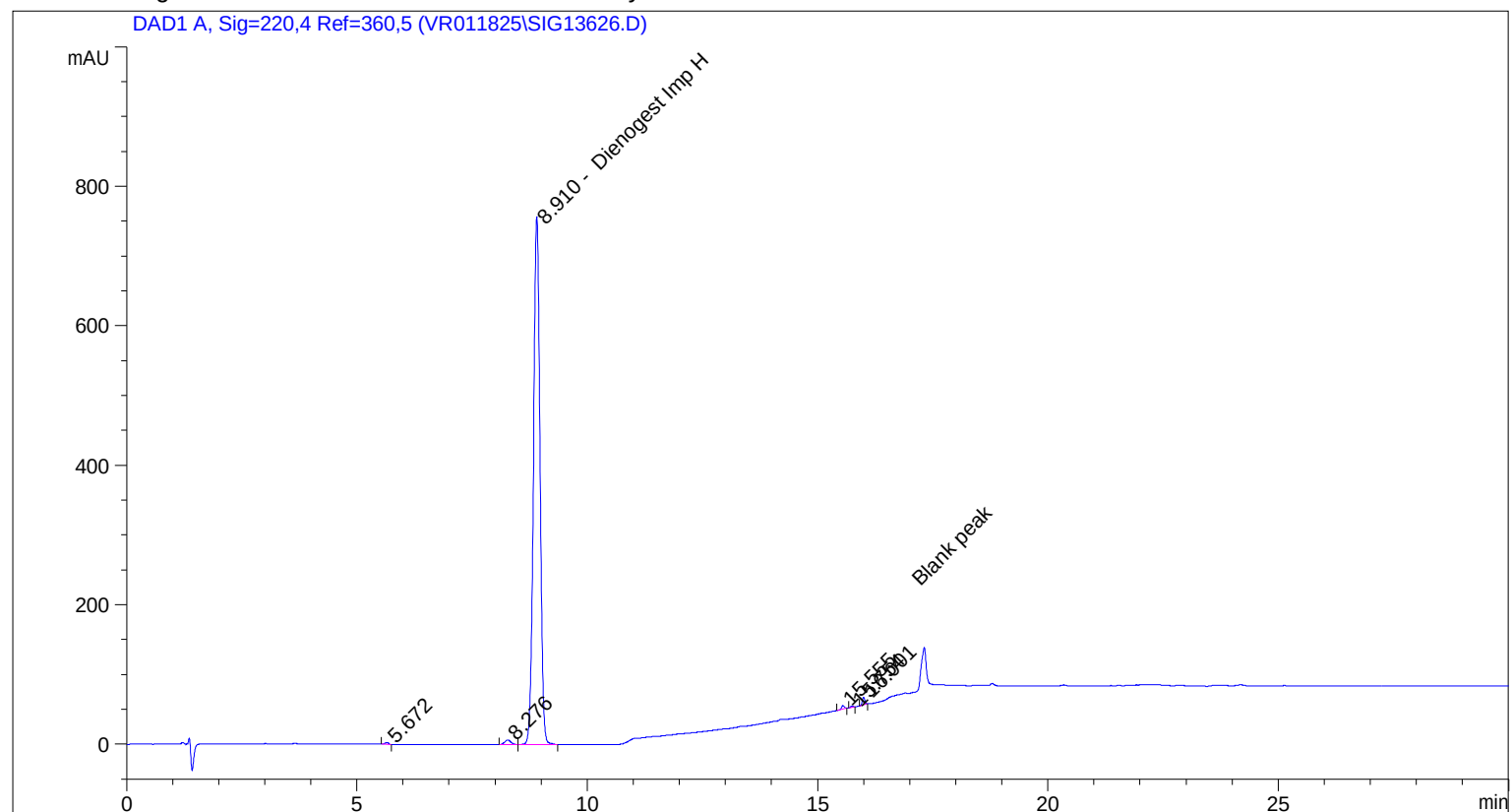
Sample Name: GR-15-049 spl-2

=====

*** End of Report ***

=====

Acq. Operator	: vrusu	
Acq. Instrument	: Instrument 1	Location : Vial 4
Injection Date	: 8/5/2025 4:38:00 PM	
		Inj Volume : 10.0 µl
Acq. Method	: C:\CHEM32\1\METHODS\VR080525_049.M	
Last changed	: 8/5/2025 4:36:51 PM by vrusu	
Analysis Method	: C:\CHEM32\1\METHODS\VR080625_049PM.M	
Last changed	: 8/6/2025 9:34:08 AM by vrusu	



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

Sorted By : Signal
Calib. Data Modified : 8/6/2025 9:33:51 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	5.672	BB	0.1030	12.91103	0.1701	?
2	8.276	BB	0.1424	59.90387	0.7893	?
3	8.910	BB	0.1528	7446.67871	98.1129	Dienogest Imp H
4	15.555	BB	0.0688	22.01843	0.2901	?
5	15.754	BB	0.0568	6.92221	0.0912	?
6	16.001	BB	0.0596	41.47100	0.5464	?

Totals : 7589.90526

Sample Name: GR-15-049

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