

**Name:** 21-Dehydro Desonide (mixture of aldehyde and hydrate forms)

**Lot#:** GR-17-105

**Test Date:** 03/29/2022 (re-test date: 03/29/2027)

**CAS No.:** 57171-18-3

**MF:** C<sub>24</sub>H<sub>30</sub>O<sub>6</sub>, C<sub>24</sub>H<sub>32</sub>O<sub>7</sub> (hydrate form)

**MW:** 414.50, 432.51 (hydrate form)

**Appearance:** Pale Yellow Solid

**Purity:** 97.0% by HPLC (corresponds to the hydrate form)

**<sup>1</sup>H-NMR:** Conforms (NMR in DMSO-D<sub>6</sub> shows mostly the hydrate; NMR in CDCl<sub>3</sub> shows a ~1:1 mixture of aldehyde and hydrate forms)

**MS-ESI (+)** Conforms (shows peaks at m/z = 415.08 [M+H]<sup>+</sup> and 433.09 [M+H<sub>2</sub>O+H]<sup>+</sup> shows ~1:1 mixture of aldehyde and hydrate forms)

**Note:** In solid state and in solutions of aprotic solvents 21-Dehydro Desonide exists as a mixture of aldehyde and hydrate forms; in the solvents containing water, 21-Dehydro Desonide exists mostly in the hydrate form

Approved by:

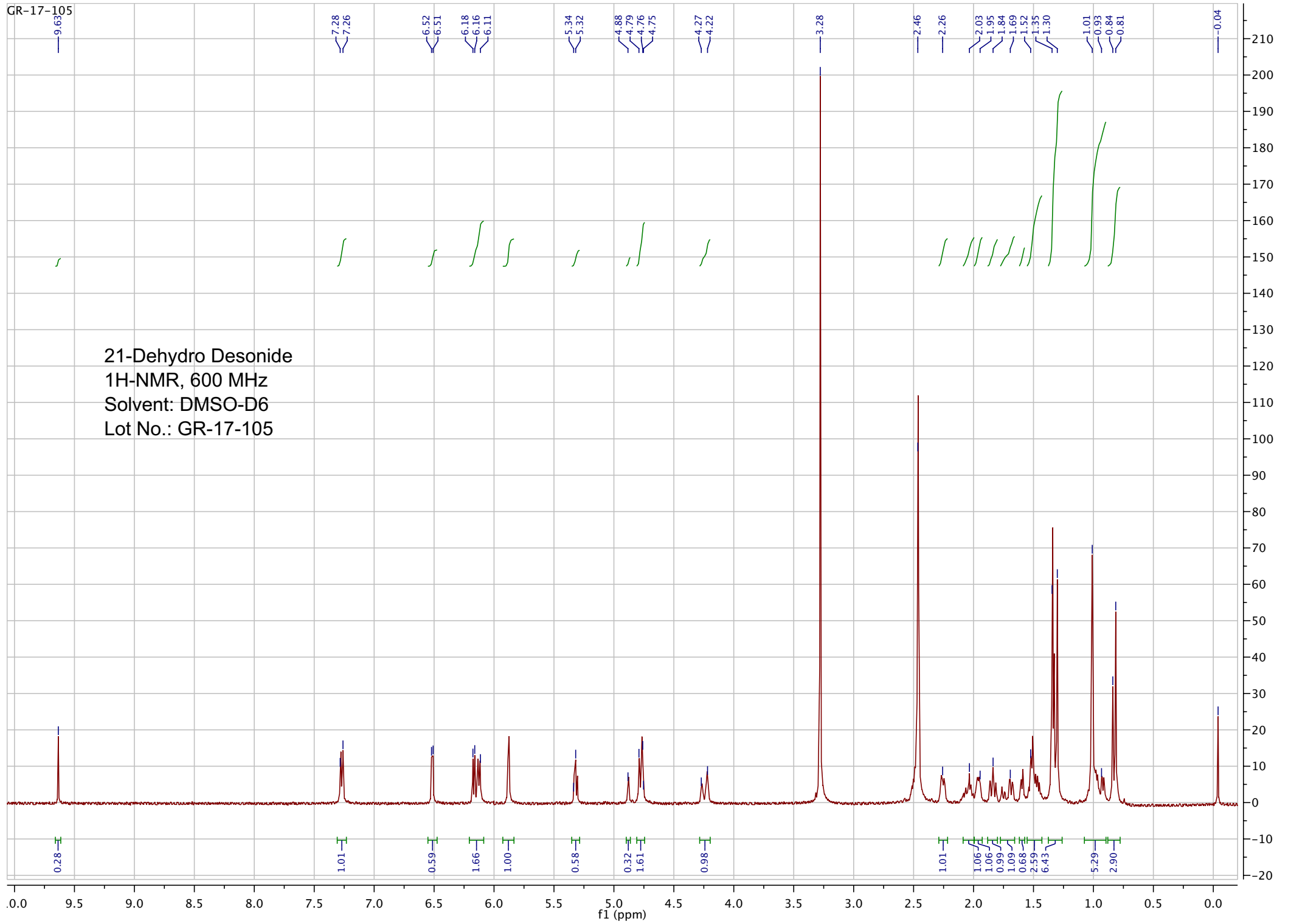
Date: 04/05/2022



Viorica Rusu, QC/QA Manager

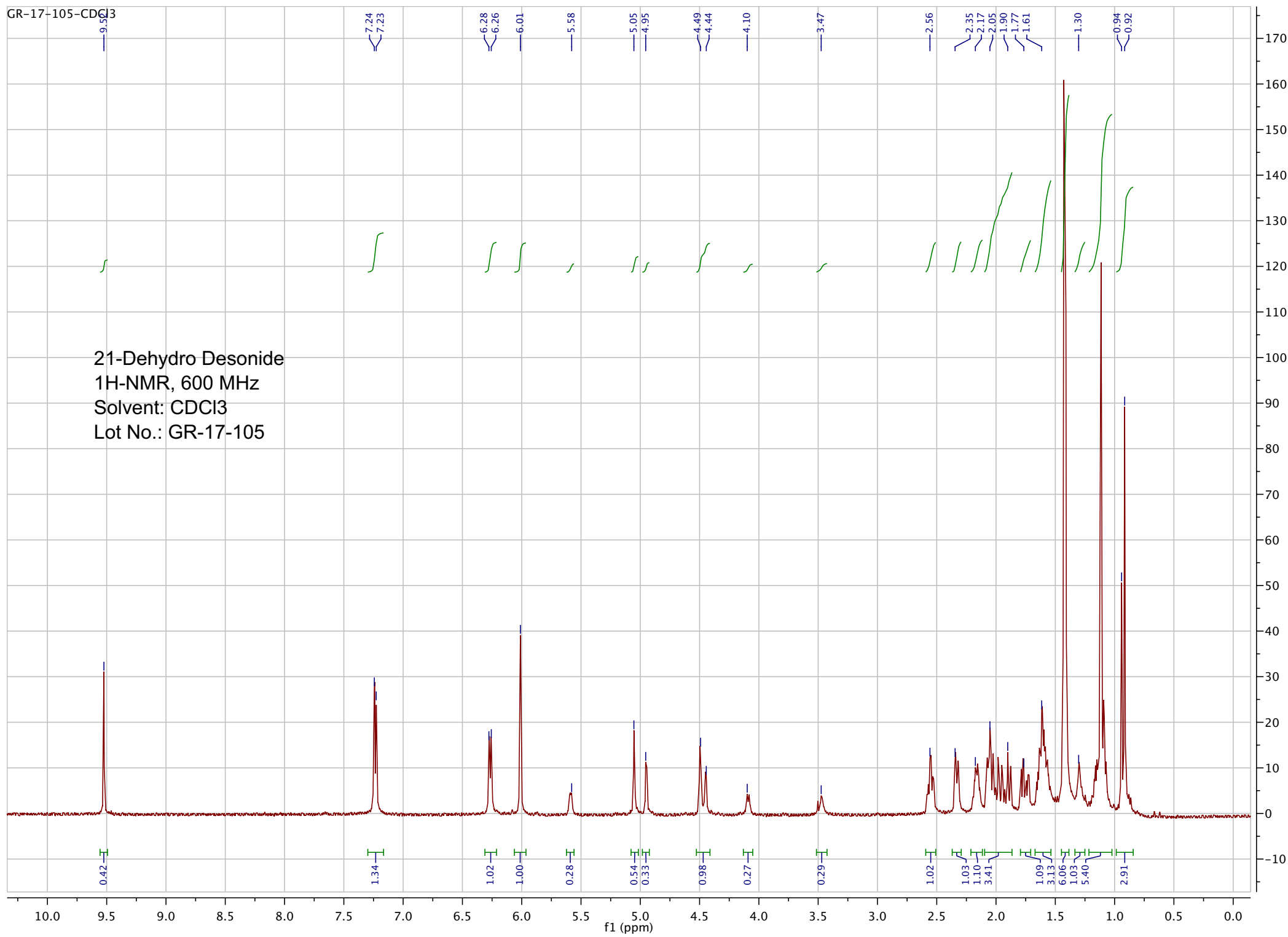
GR-17-105

21-Dehydro Desonide  
1H-NMR, 600 MHz  
Solvent: DMSO-D6  
Lot No.: GR-17-105

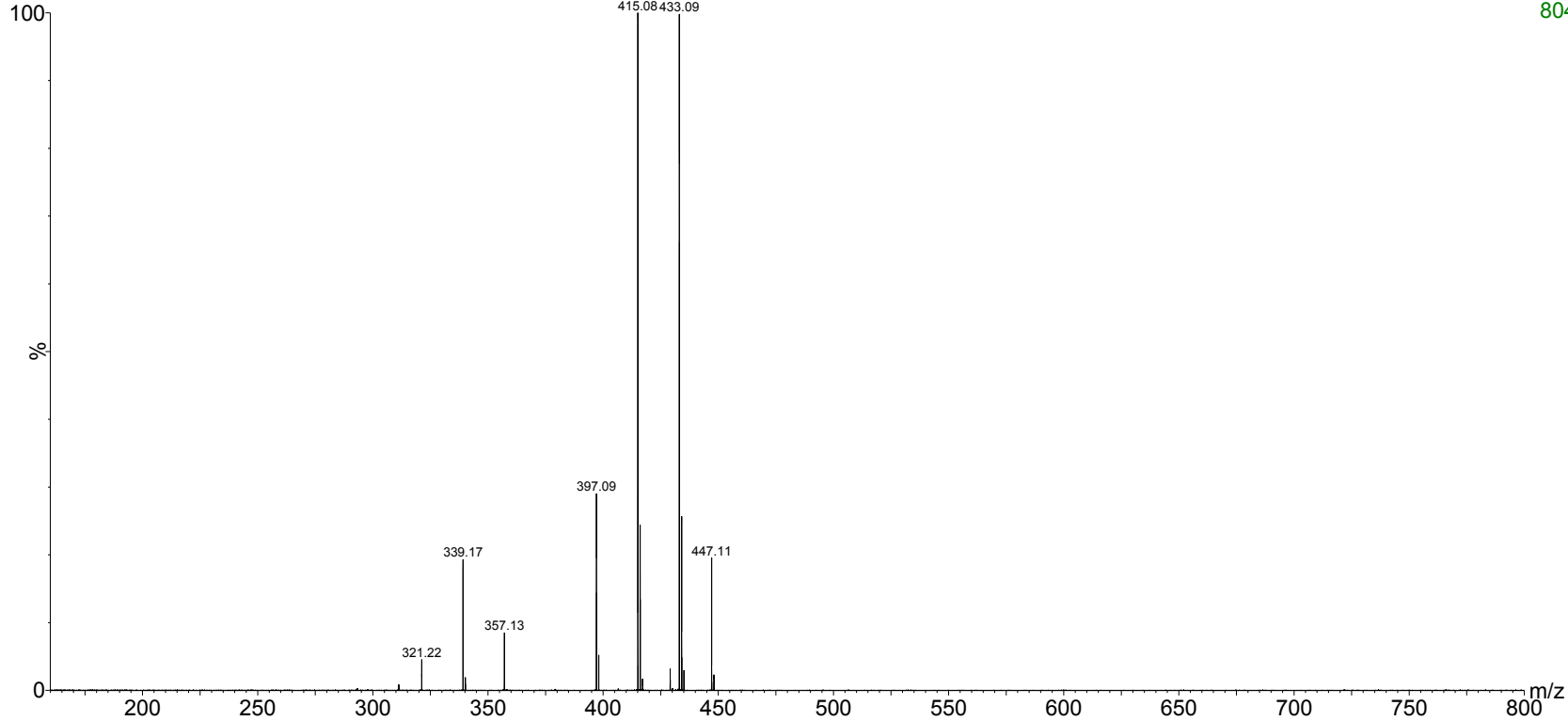


GR-17-105-CDCl3

21-Dehydro Desonide  
1H-NMR, 600 MHz  
Solvent: CDCl3  
Lot No.: GR-17-105



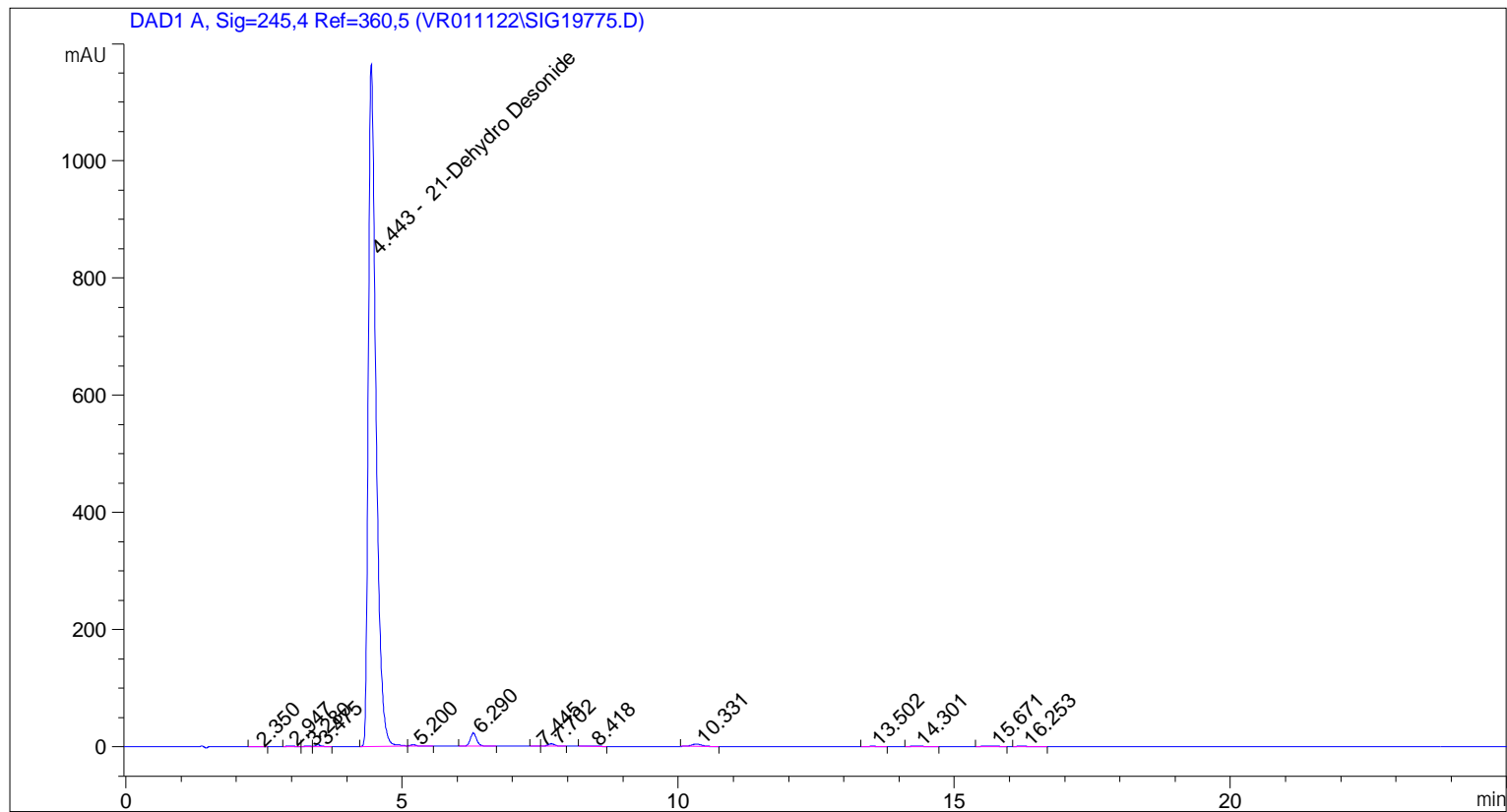
pp\_2022\_025\_NaCsl\_GR\_17\_105\_b 160 (3.033) Sm (SG, 2x5.00); Sb (2,10.00 ); Cm (160:170-7:16)



ESI-MS spectrum for sample GR-17-105. Shows monoisotopic [M+H]+ mass.

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Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 40
Injection Date  : 3/29/2022 8:20:55 AM
                                           Inj Volume : 10.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR032922_105.M
Last changed    : 3/29/2022 8:19:52 AM by vrusu
Analysis Method  : C:\CHEM32\1\METHODS\VR032922_105PM.M
Last changed    : 3/29/2022 2:48:10 PM by vrusu
  
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 Area Percent Report  
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Sorted By           :      Signal
Calib. Data Modified :      3/29/2022 9:00:16 AM
Multiplier:         :      1.0000
Dilution:           :      1.0000
Use Multiplier & Dilution Factor with ISTDs
  
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Signal 1: DAD1 A, Sig=245,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	2.350	BB	0.1063	9.19448e-1	7.955e-3	?
2	2.947	BB	0.1023	5.75066	0.0498	?
3	3.280	BV	0.0823	5.11880	0.0443	?
4	3.475	VB	0.0860	17.44301	0.1509	?
5	4.443	BV	0.1442	1.12114e4	96.9942	21-Dehydro Desonide
6	5.200	VB	0.1233	22.60713	0.1956	?
7	6.290	BB	0.1247	182.66017	1.5803	?
8	7.445	BV	0.0853	8.61620e-1	7.454e-3	?

Sample Name: GR-17-105

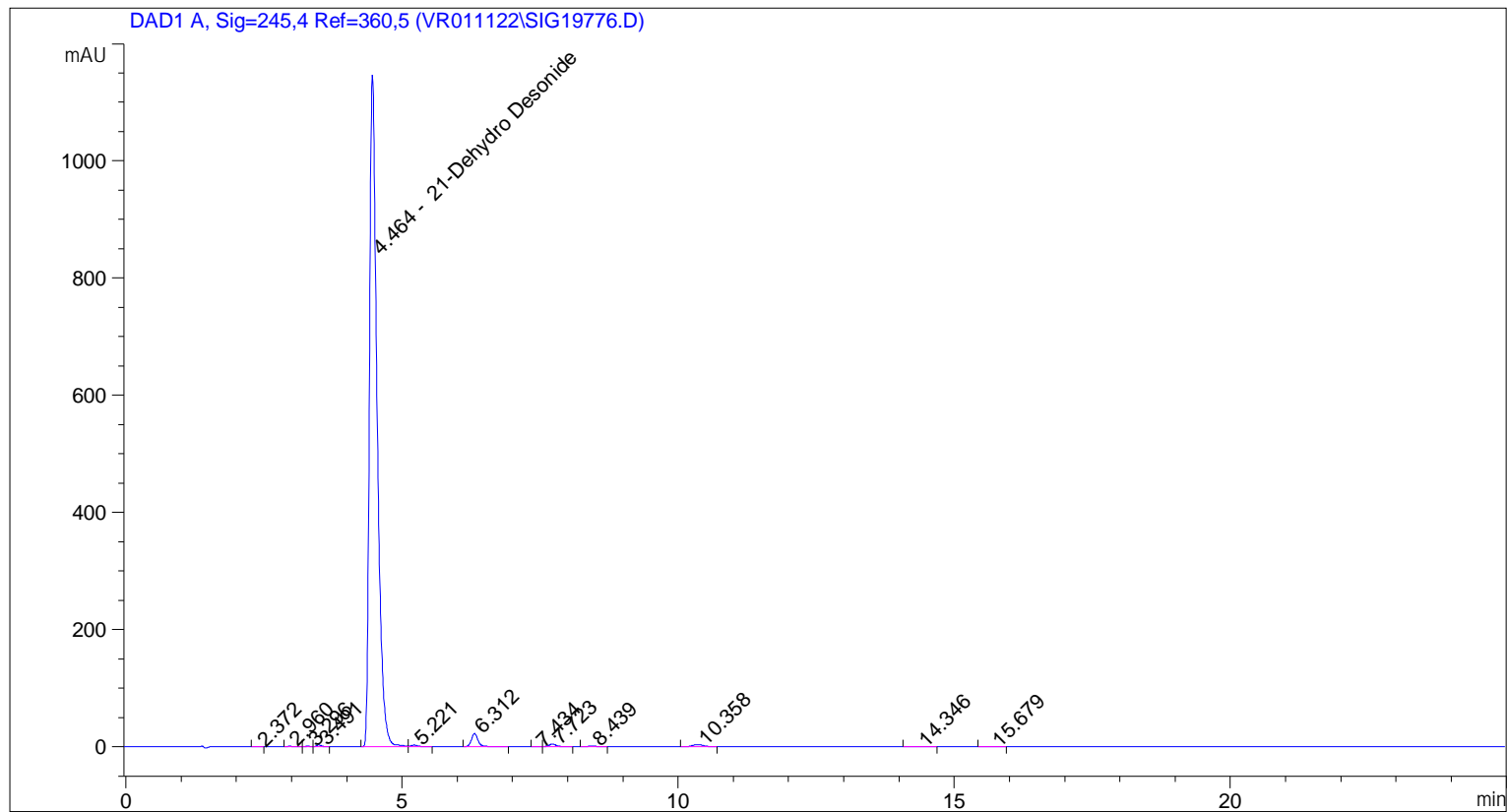
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9	7.702	VB	0.1355	38.30769	0.3314	?
10	8.418	BB	0.1496	10.08088	0.0872	?
11	10.331	BB	0.1931	50.44155	0.4364	?
12	13.502	BB	0.1821	2.01571	0.0174	?
13	14.301	BB	0.2043	4.25949	0.0369	?
14	15.671	BB	0.2071	4.68407	0.0405	?
15	16.253	BB	0.1973	2.28357	0.0198	?

Totals : 1.15588e4

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

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Acq. Instrument : Instrument 1                Location : Vial 41
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                                           Inj Volume : 10.0 µl
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Analysis Method : C:\CHEM32\1\METHODS\VR032922_105PM.M
Last changed    : 3/29/2022 2:48:10 PM by vrusu
  
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 Area Percent Report  
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Sorted By           :      Signal
Calib. Data Modified :      3/29/2022 9:00:16 AM
Multiplier:         :      1.0000
Dilution:           :      1.0000
Use Multiplier & Dilution Factor with ISTDs
  
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Signal 1: DAD1 A, Sig=245,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	2.372	BB	0.0913	7.60460e-1	6.696e-3	?
2	2.960	BV	0.0986	5.71312	0.0503	?
3	3.296	VV	0.0813	4.98412	0.0439	?
4	3.491	VB	0.0852	16.87310	0.1486	?
5	4.464	BV	0.1441	1.10256e4	97.0856	21-Dehydro Desonide
6	5.221	VB	0.1192	20.30639	0.1788	?
7	6.312	BB	0.1249	180.36919	1.5882	?
8	7.434	BV	0.1063	1.18273	0.0104	?

Sample Name: GR-17-105 spl-2

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
9	7.723	VB	0.1368	38.00795	0.3347	?
10	8.439	BB	0.1547	8.98829	0.0791	?
11	10.358	BB	0.1993	45.82844	0.4035	?
12	14.346	BB	0.1833	4.07050	0.0358	?
13	15.679	BB	0.1894	3.89298	0.0343	?

Totals : 1.13566e4

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