

|                           |  |
|---------------------------|--|
| <b>Name:</b>              | <b>21-Dehydro Desonide Hydrate</b>   |
| <b>Lot#:</b>              | GR-16-225  |
| <b>Test Date:</b>         | 11/10/2021 (re-test date: 11/10/2026)  |
| <b>CAS No.:</b>           | NA   |
| <b>MF:</b>                | C <sub>24</sub> H <sub>32</sub> O <sub>7</sub>   |
| <b>MW:</b>                | 432.51   |
| <b>Appearance:</b>        | Off-white solid  |
| <b>Purity:</b>            | 98.2% by HPLC (average of two sample preparations)   |
| <b><sup>1</sup>H-NMR:</b> | Conforms   |
| <b>MS-ESI (+)</b>         | Conforms (shows peaks at m/z = 415.20 [M-H <sub>2</sub> O+H] <sup>+</sup> , 433.21 [M+H] <sup>+</sup> and 455.19 [M+Na] <sup>+</sup> ) |
| <b>Storage</b>            | Store at -18°C in a dry place away from direct sunlight  |

Approved by:

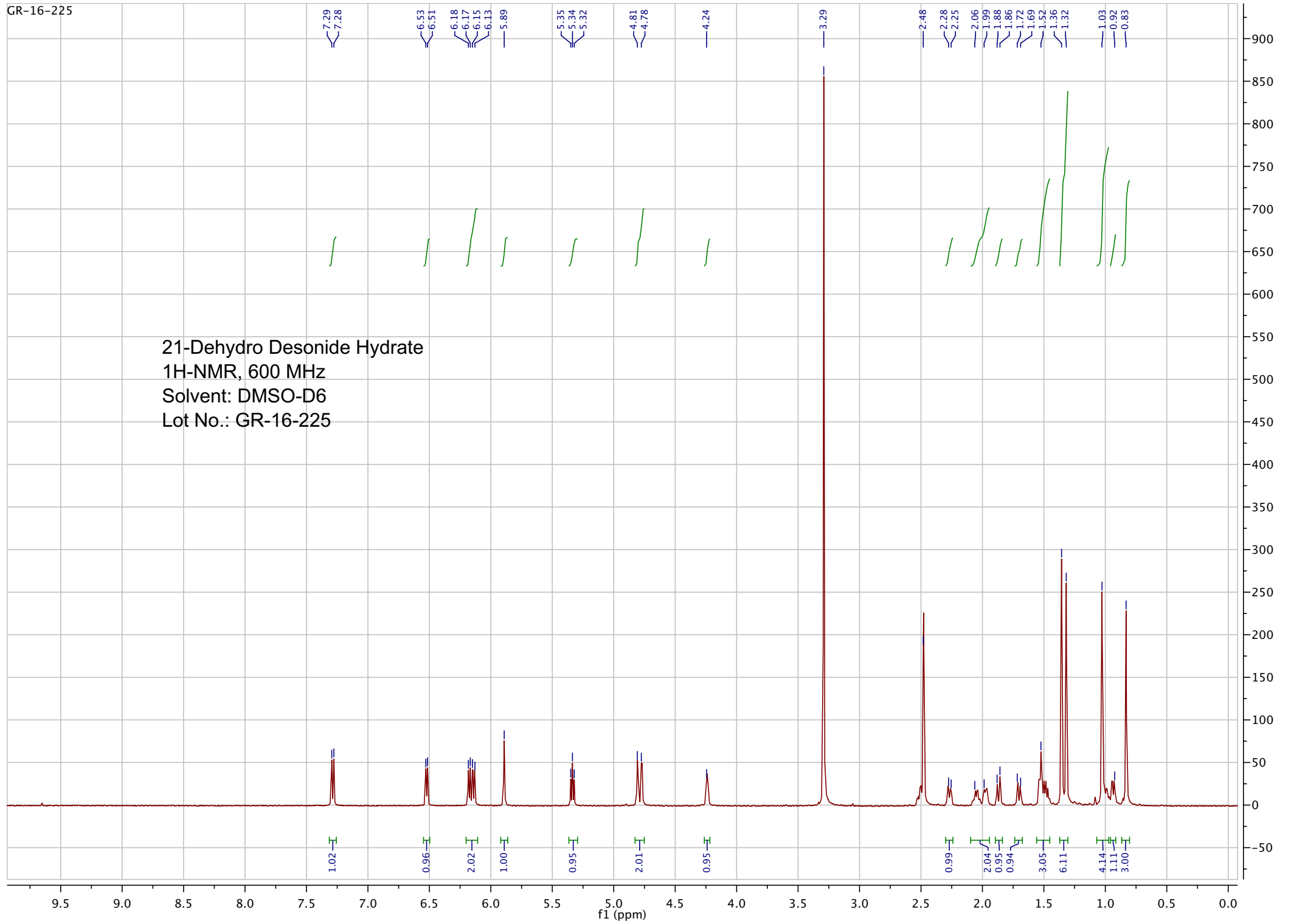
Date: 11/25/2021



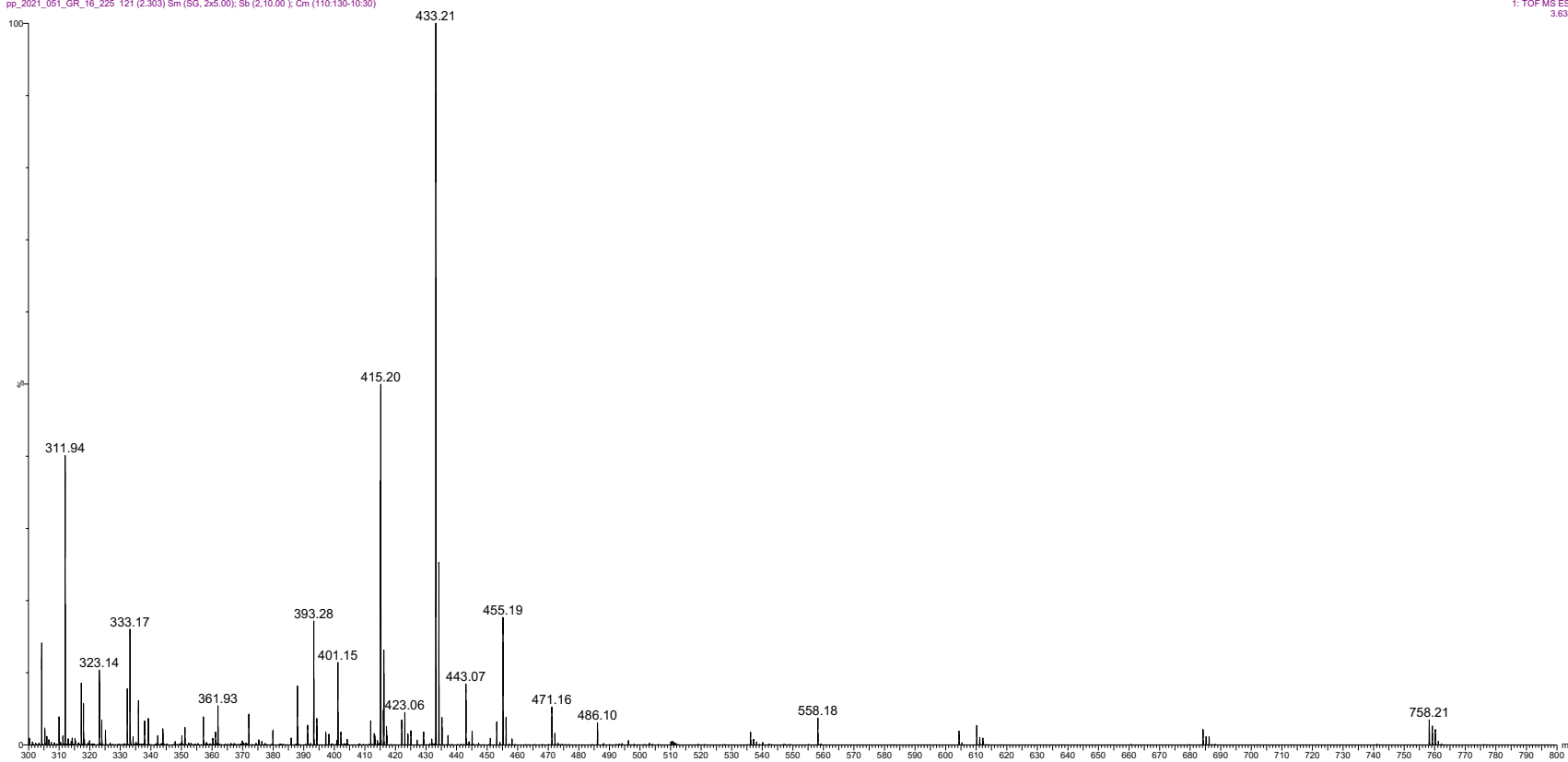
Viorica Rusu, QC/QA Manager

GR-16-225

21-Dehydro Desonide Hydrate  
1H-NMR, 600 MHz  
Solvent: DMSO-D6  
Lot No.: GR-16-225



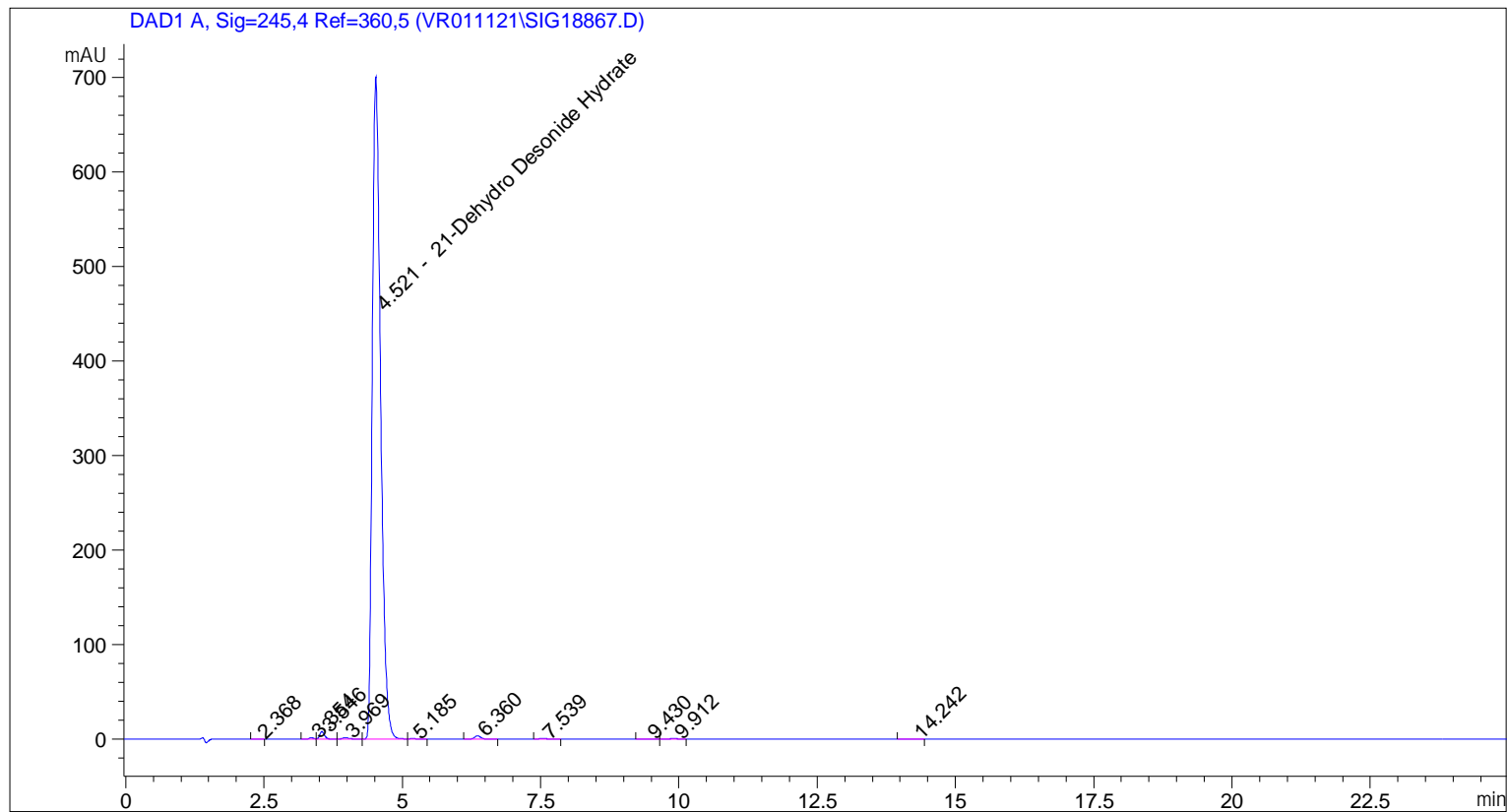
pp\_2021\_051\_GR\_16\_225\_121 (2.303) Sm (SG, 2x5.00); Sb (2.10.00); Cm (110:130-10:30)



ESI-MS spectrum for sample GR-16-225. Shows monoisotopic  $[M+H]^+$  mass.

```

=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 96
Injection Date  : 11/10/2021 1:55:54 PM
                                           Inj Volume : 15.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR111021_225.M
Last changed    : 11/10/2021 1:54:35 PM by vrusu
Analysis Method  : C:\CHEM32\1\METHODS\VR111021_225PM.M
Last changed    : 11/10/2021 2:59:44 PM by vrusu
  
```



Area Percent Report

```

Sorted By           : Signal
Calib. Data Modified : 11/10/2021 2:58:41 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=245,4 Ref=360,5

| Peak # | RetTime [min] | Type | Width [min] | Area [mAU*s] | Area %  | Name                        |
|--------|---------------|------|-------------|--------------|---------|-----------------------------|
| 1      | 2.368         | BB   | 0.0803      | 8.04615e-1   | 0.0108  | ?                           |
| 2      | 3.354         | BV   | 0.0917      | 8.43710      | 0.1134  | ?                           |
| 3      | 3.546         | VB   | 0.0942      | 48.91251     | 0.6574  | ?                           |
| 4      | 3.969         | BB   | 0.1531      | 13.61716     | 0.1830  | ?                           |
| 5      | 4.521         | BV   | 0.1618      | 7316.18506   | 98.3273 | 21-Dehydro Desonide Hydrate |
| 6      | 5.185         | VB   | 0.1259      | 4.99649      | 0.0672  | ?                           |
| 7      | 6.360         | BB   | 0.1257      | 28.25758     | 0.3798  | ?                           |
| 8      | 7.539         | BB   | 0.1405      | 7.59315      | 0.1020  | ?                           |

Sample Name: GR-16-225

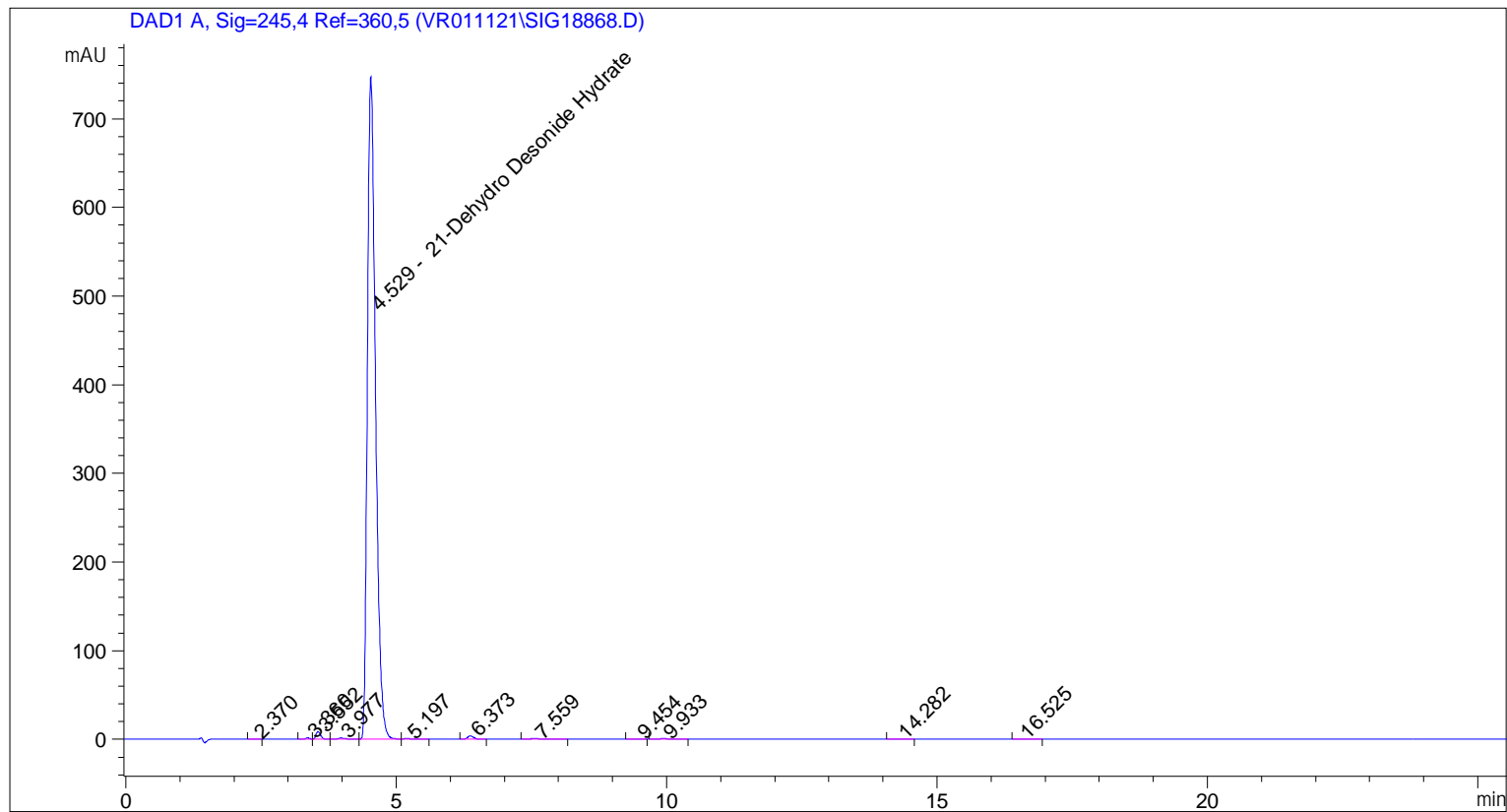
| Peak # | RetTime [min] | Type | Width [min] | Area [mAU*s] | Area % | Name |
|--------|---------------|------|-------------|--------------|--------|------|
| 9      | 9.430         | BB   | 0.1511      | 2.49097      | 0.0335 | ?    |
| 10     | 9.912         | BB   | 0.1551      | 6.56061      | 0.0882 | ?    |
| 11     | 14.242        | BB   | 0.1779      | 2.78988      | 0.0375 | ?    |

Totals : 7440.64513

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

```

=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 97
Injection Date  : 11/10/2021 2:22:42 PM
                                           Inj Volume : 15.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR111021_225.M
Last changed    : 11/10/2021 2:21:30 PM by vrusu
Analysis Method  : C:\CHEM32\1\METHODS\VR111021_225PM.M
Last changed    : 11/10/2021 2:59:44 PM by vrusu
  
```



Area Percent Report

```

Sorted By           : Signal
Calib. Data Modified : 11/10/2021 2:58:41 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=245,4 Ref=360,5

| Peak # | RetTime [min] | Type | Width [min] | Area [mAU*s] | Area %  | Name                        |
|--------|---------------|------|-------------|--------------|---------|-----------------------------|
| 1      | 2.370         | BB   | 0.0862      | 8.14962e-1   | 0.0102  | ?                           |
| 2      | 3.360         | BV   | 0.0915      | 9.20706      | 0.1155  | ?                           |
| 3      | 3.552         | VB   | 0.0922      | 52.88487     | 0.6634  | ?                           |
| 4      | 3.977         | BV   | 0.1589      | 14.54384     | 0.1824  | ?                           |
| 5      | 4.529         | VV   | 0.1621      | 7825.29785   | 98.1663 | 21-Dehydro Desonide Hydrate |
| 6      | 5.197         | VB   | 0.1373      | 7.50706      | 0.0942  | ?                           |
| 7      | 6.373         | BB   | 0.1247      | 29.94289     | 0.3756  | ?                           |
| 8      | 7.559         | BB   | 0.1741      | 11.68289     | 0.1466  | ?                           |

Sample Name: GR-16-225 spl-2

| Peak # | RetTime [min] | Type | Width [min] | Area [mAU*s] | Area % | Name |
|--------|---------------|------|-------------|--------------|--------|------|
| 9      | 9.454         | BB   | 0.1489      | 2.95429      | 0.0371 | ?    |
| 10     | 9.933         | BB   | 0.2312      | 12.39548     | 0.1555 | ?    |
| 11     | 14.282        | BB   | 0.1751      | 2.61946      | 0.0329 | ?    |
| 12     | 16.525        | BB   | 0.1616      | 1.62210      | 0.0203 | ?    |

Totals : 7971.47276

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