

**Name:** Delamanid-D4  
**Lot#:** GR-13-127  
**Test Date:** 05/14/2019 (re-test date: 05/14/2024)  
**CAS No.:** 681492-22-8 unlabeled  
**MF:** C<sub>25</sub>H<sub>21</sub>D<sub>4</sub>F<sub>3</sub>N<sub>4</sub>O<sub>6</sub>  
**MW:** 538.52  
**Appearance:** White Solid  
**Purity:** 99.9% by HPLC; 99.8% ee; >98% atom D  
**<sup>1</sup>H-NMR:** Conforms  
**MS-ESI (+)** Conforms (shows peak at m/z = 539.19 [M+H]<sup>+</sup>)

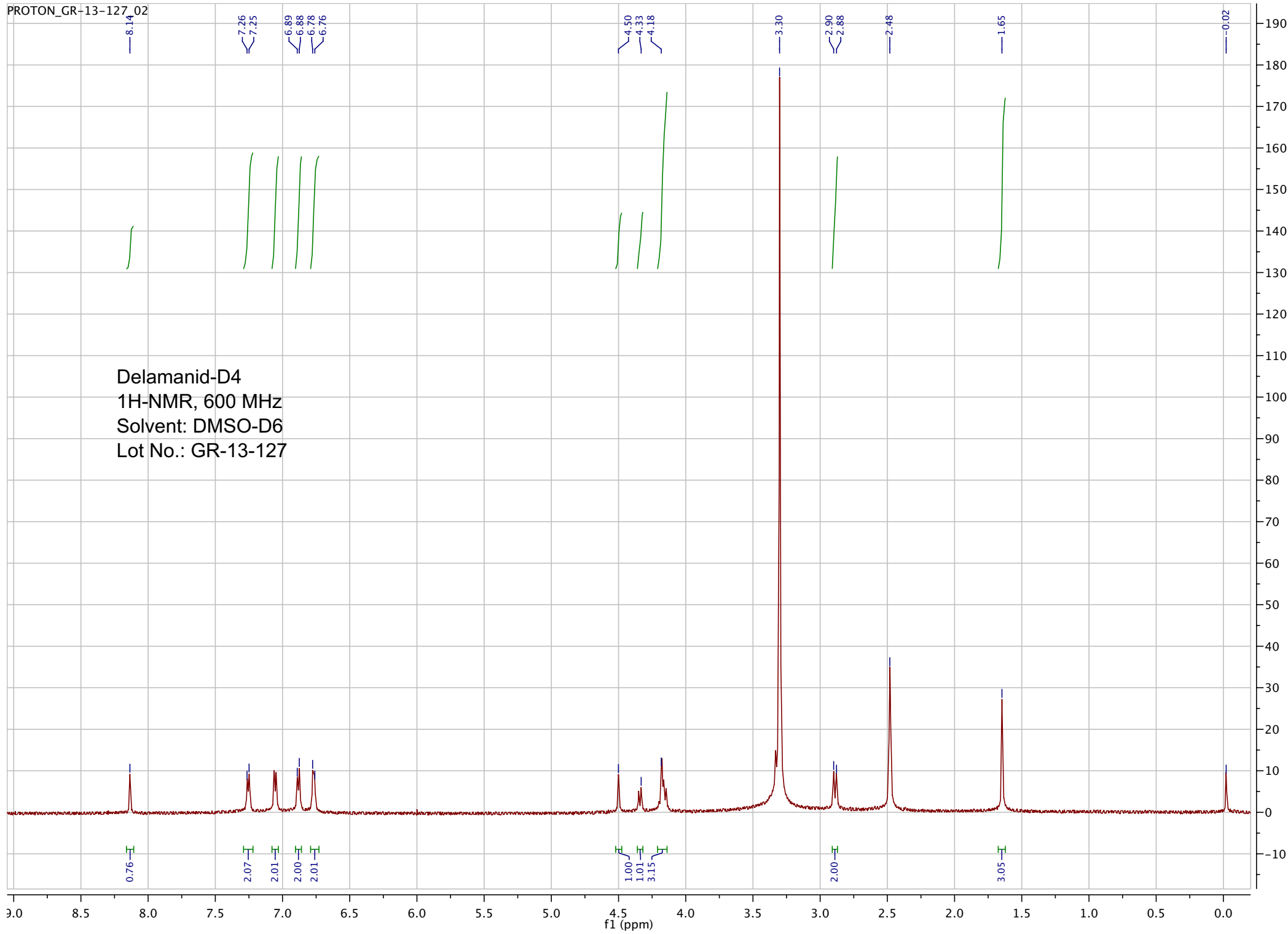
Approved by:

Date: 05/14/2019



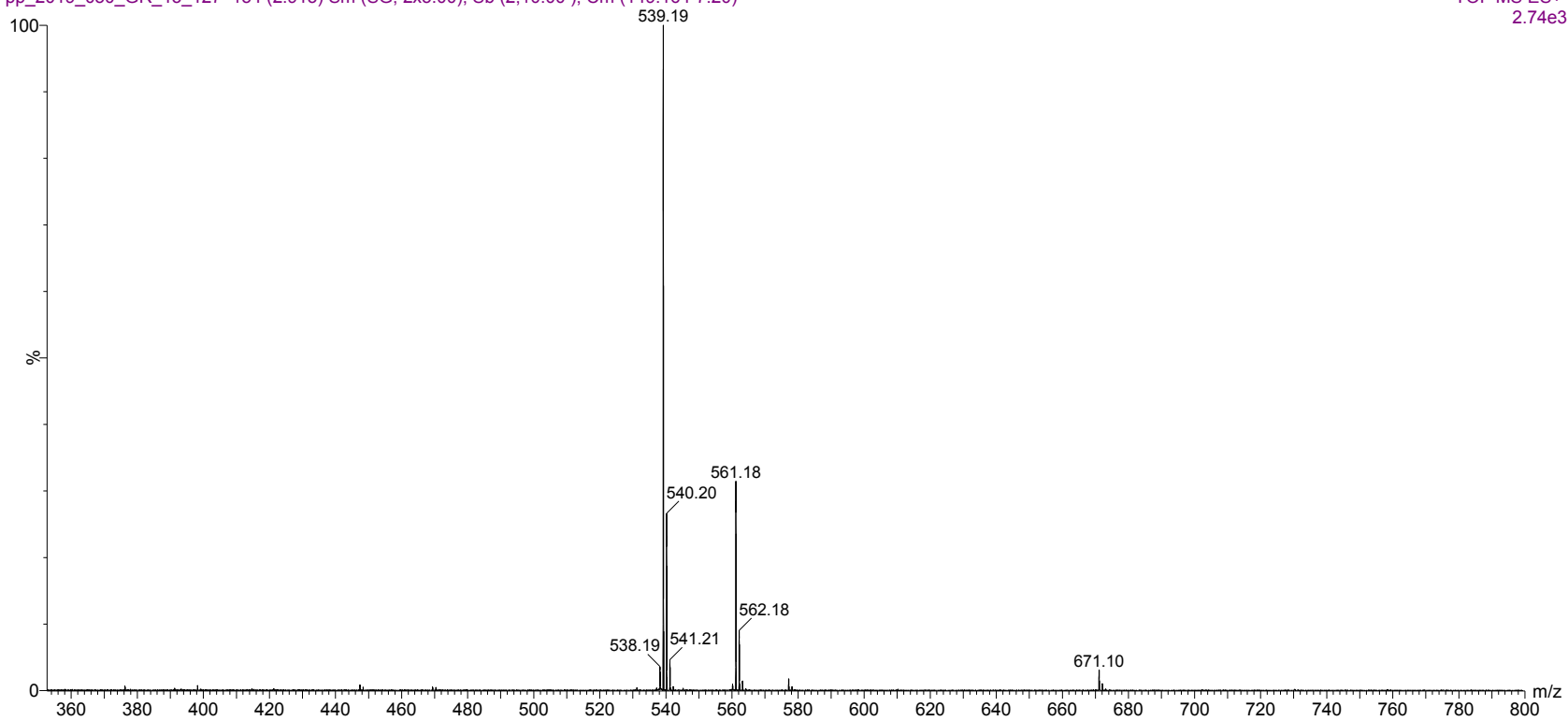
Viorica Rusu, QC/QA Manager

Delamanid-D4  
1H-NMR, 600 MHz  
Solvent: DMSO-D6  
Lot No.: GR-13-127



pp\_2019\_050\_GR\_13\_127 154 (2.913) Sm (SG, 2x5.00); Sb (2,10.00 ); Cm (149:164-7:20)

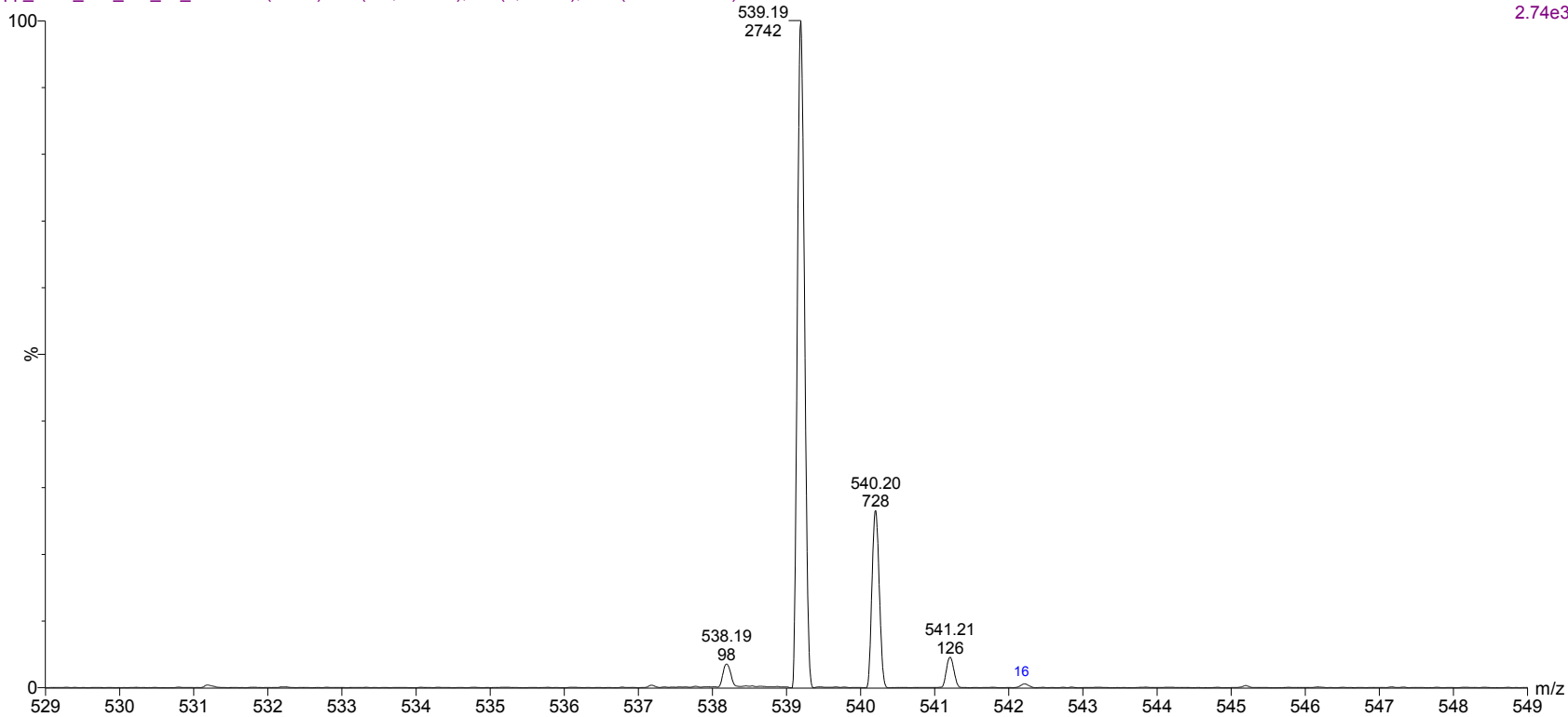
TOF MS ES+  
2.74e3



ESI-MS spectrum for sample GR-13-127. Shows monoisotopic  $[M+H]^+$  mass.

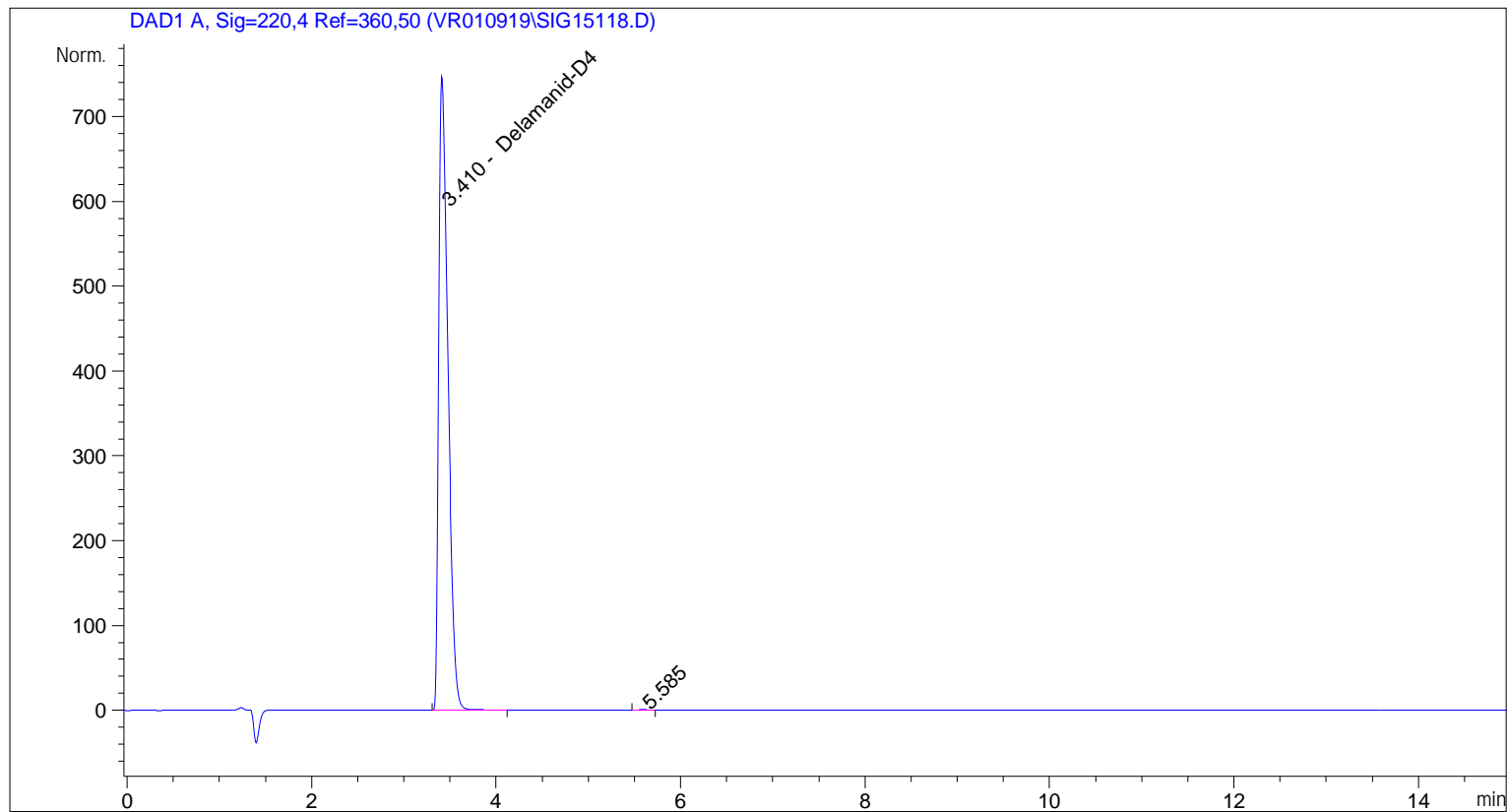
pp\_2019\_050\_GR\_13\_127 154 (2.913) Sm (SG, 2x5.00); Sb (2,10.00 ); Cm (149:164-7:20)

TOF MS ES+  
2.74e3



Expansion of above showing intensity labels.

=====  
Acq. Operator : vrusu  
Acq. Instrument : Instrument 1 Location : Vial 4  
Injection Date : 5/13/2019 10:12:52 AM Inj Volume : 10.0 µl  
Acq. Method : C:\CHEM32\1\METHODS\VR051319\_127.M  
Last changed : 5/13/2019 10:11:34 AM by vrusu  
Analysis Method : C:\CHEM32\1\METHODS\VR051419\_127PM.M  
Last changed : 5/14/2019 9:27:41 AM by vrusu



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

Sorted By : Signal  
Calib. Data Modified : 5/14/2019 9:27:00 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

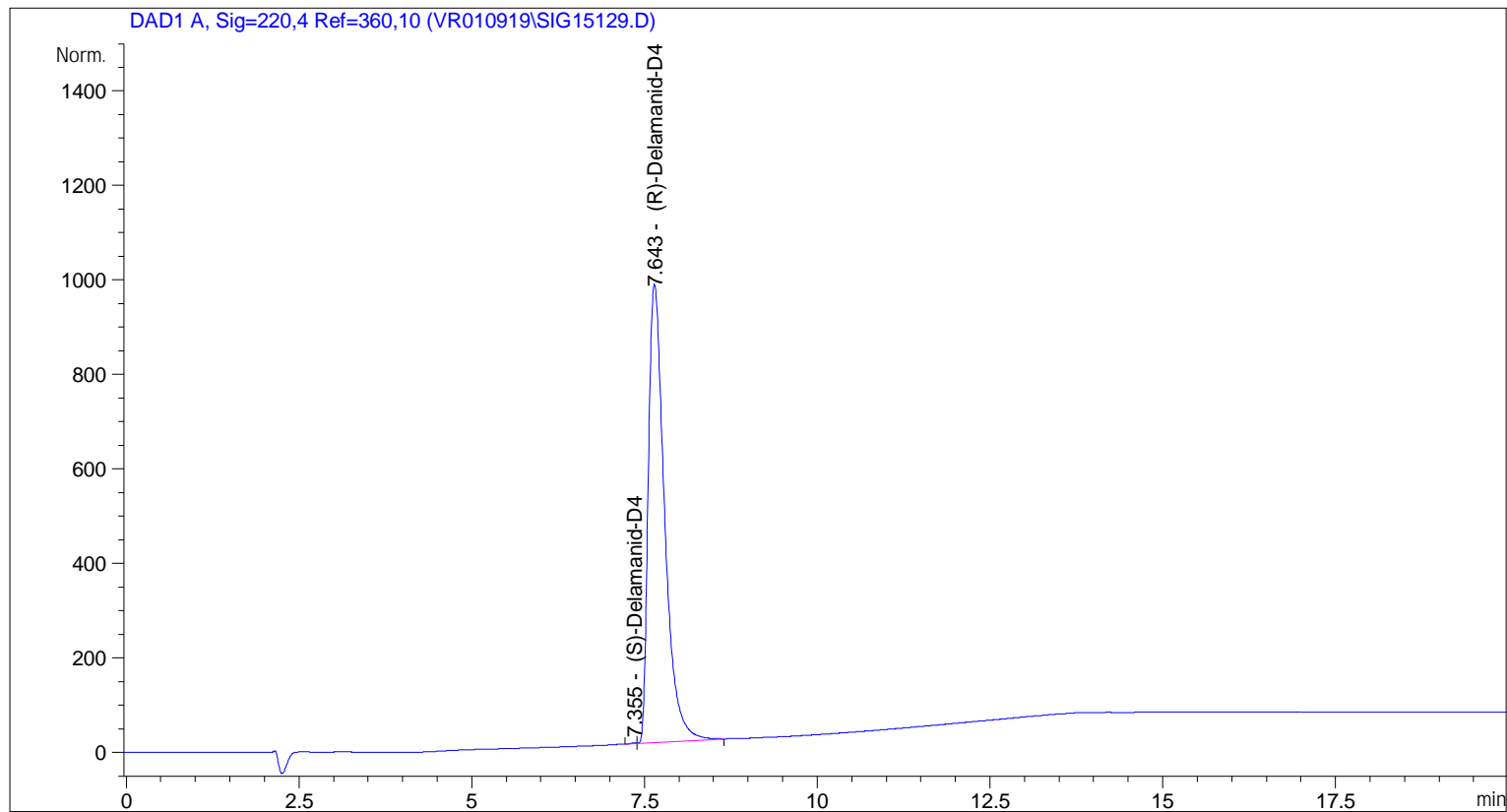
Signal 1: DAD1 A, Sig=220,4 Ref=360,50

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	3.410	BB	0.1068	5181.62988	99.9276	Delamanid-D4
2	5.585	BB	0.1027	3.75490	0.0724	?

Totals : 5185.38478

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

=====  
Acq. Operator : vrusu  
Acq. Instrument : Instrument 1 Location : Vial 4  
Injection Date : 5/14/2019 8:02:00 AM Inj Volume : 25.0 µl  
Acq. Method : C:\CHEM32\1\METHODS\VR051319A\_127.M  
Last changed : 5/14/2019 7:59:53 AM by vrusu  
Analysis Method : C:\CHEM32\1\METHODS\VR051419A\_127PM.M  
Last changed : 5/14/2019 8:36:35 AM by vrusu



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

Sorted By : Signal  
Calib. Data Modified : Tuesday, May 14, 2019 8:30:52 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=220,4 Ref=360,10

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	7.355	BV	0.1013	11.86757	0.0746	(S)-Delamanid-D4
2	7.643	VB	0.2509	1.58889e4	99.9254	(R)-Delamanid-D4

Totals : 1.59008e4

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