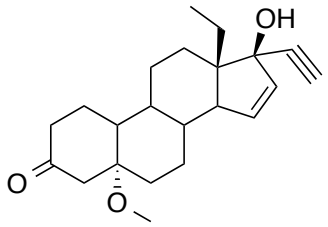
Certificate of Analysis



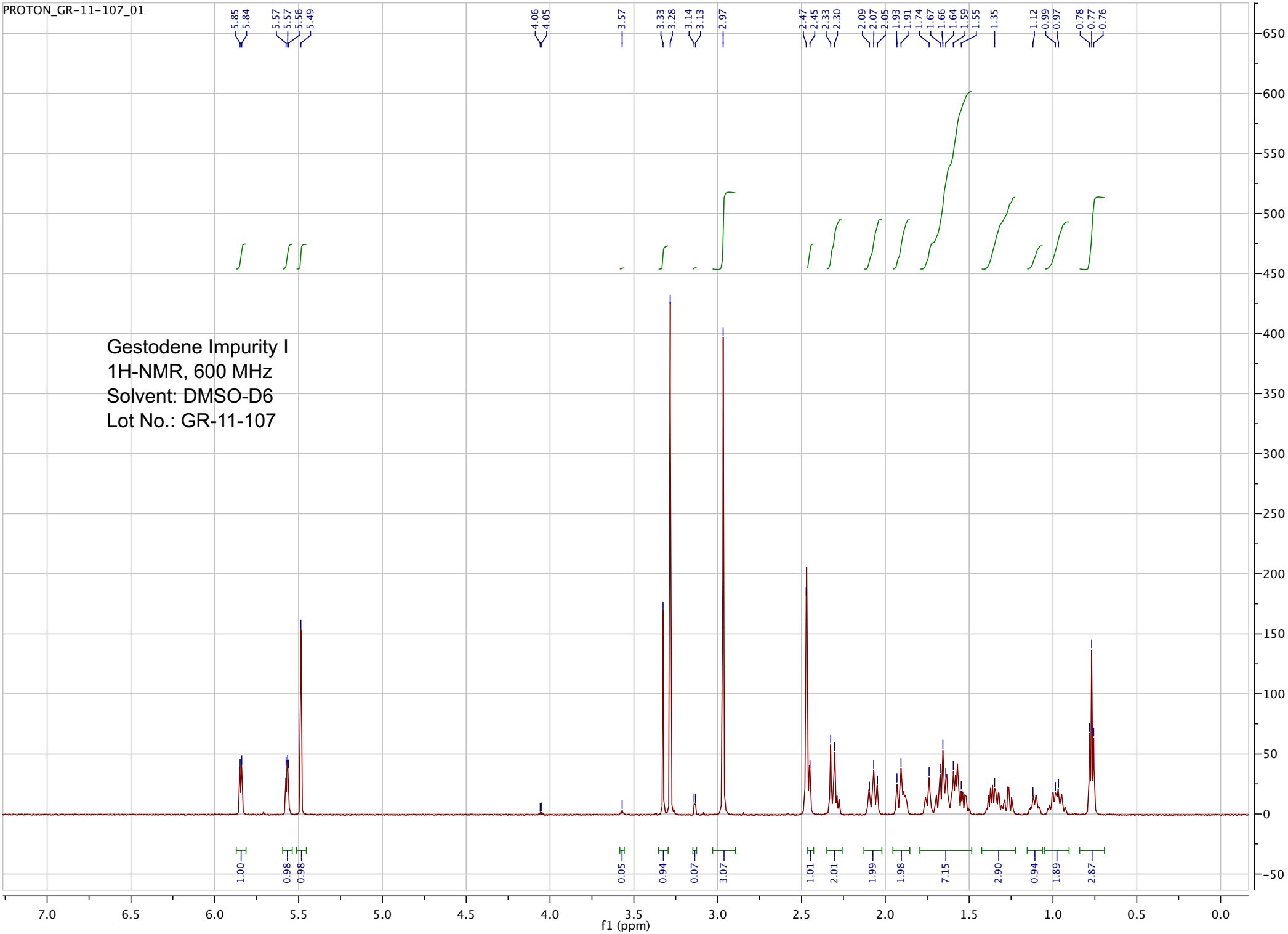
Name:	**Gestodene Impurity I**
	(4,5-Dihydro-5α-Methoxygestodene)
Lot#:	GR-11-107
Test Date:	02/16/2023 (re-test date: 02/16/2028)
CAS No.:	NA
MF:	$C_{22}H_{30}O_3$
MW:	342.47
Appearance:	White solid
Purity:	100% by HPLC
^{1}H-NMR:	Conforms (shows a trace of MeOH and THF)
MS-ESI (+)	Conforms (shows peaks at m/z = 343.21 $[M+H]^+$; 311.16 $[M-MeOH+H]^+$)
MS-MALDI (+)	Conforms (shows peak at m/z = 365.20 $[M+Na]^+$)
Storage	Store at -18°C in a dry place away from direct sunlight

Approved by:

Date: 02/16/2023

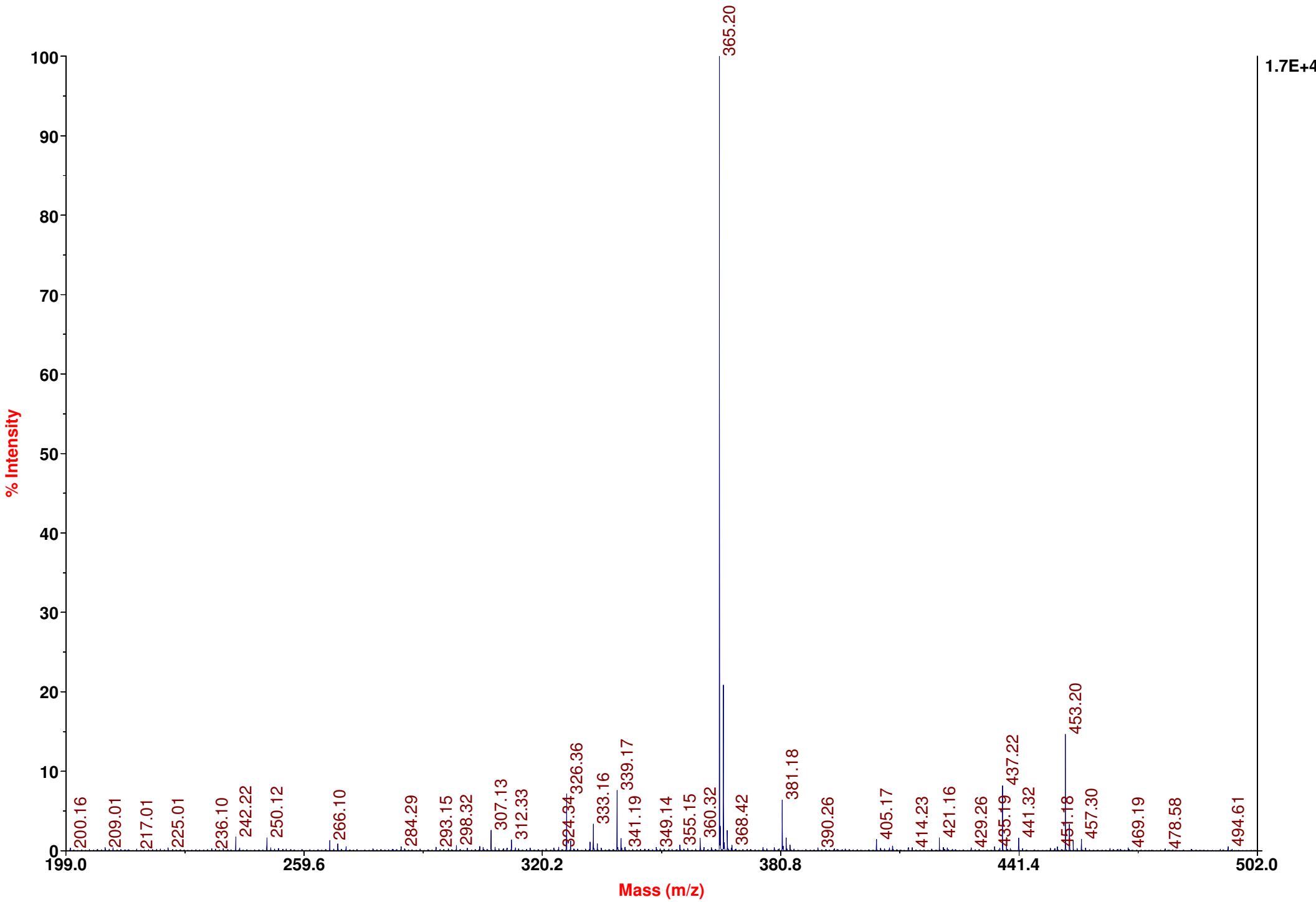
Viorica Rusu, QC/QA Manager

700, Collip Circle, The Research Park, London, ON, N6G 4X8
Ph: (647)4079078, e-mail: grusu@esschemco.com, www.esschemco.com


PROTON_GR-11-107_01
Gestodene Impurity I
1H-NMR, 600 MHz
Solvent: DMSO-D6
Lot No.: GR-11-107
5.85 5.84 5.57 5.57 5.56 5.49 4.06 4.05 3.57 3.33 3.28 3.14 3.13 2.97 2.47 2.45 2.33 2.30 2.09 2.07 2.05 1.93 1.91 1.74 1.67 1.66 1.64 1.59 1.55 1.35 1.12 0.99 0.97 0.78 0.77 0.76
1.00 0.98 0.98 0.05 0.94 0.07 3.07 1.01 2.01 1.99 1.98 7.15 2.90 0.94 1.89 2.87
f1 (ppm)

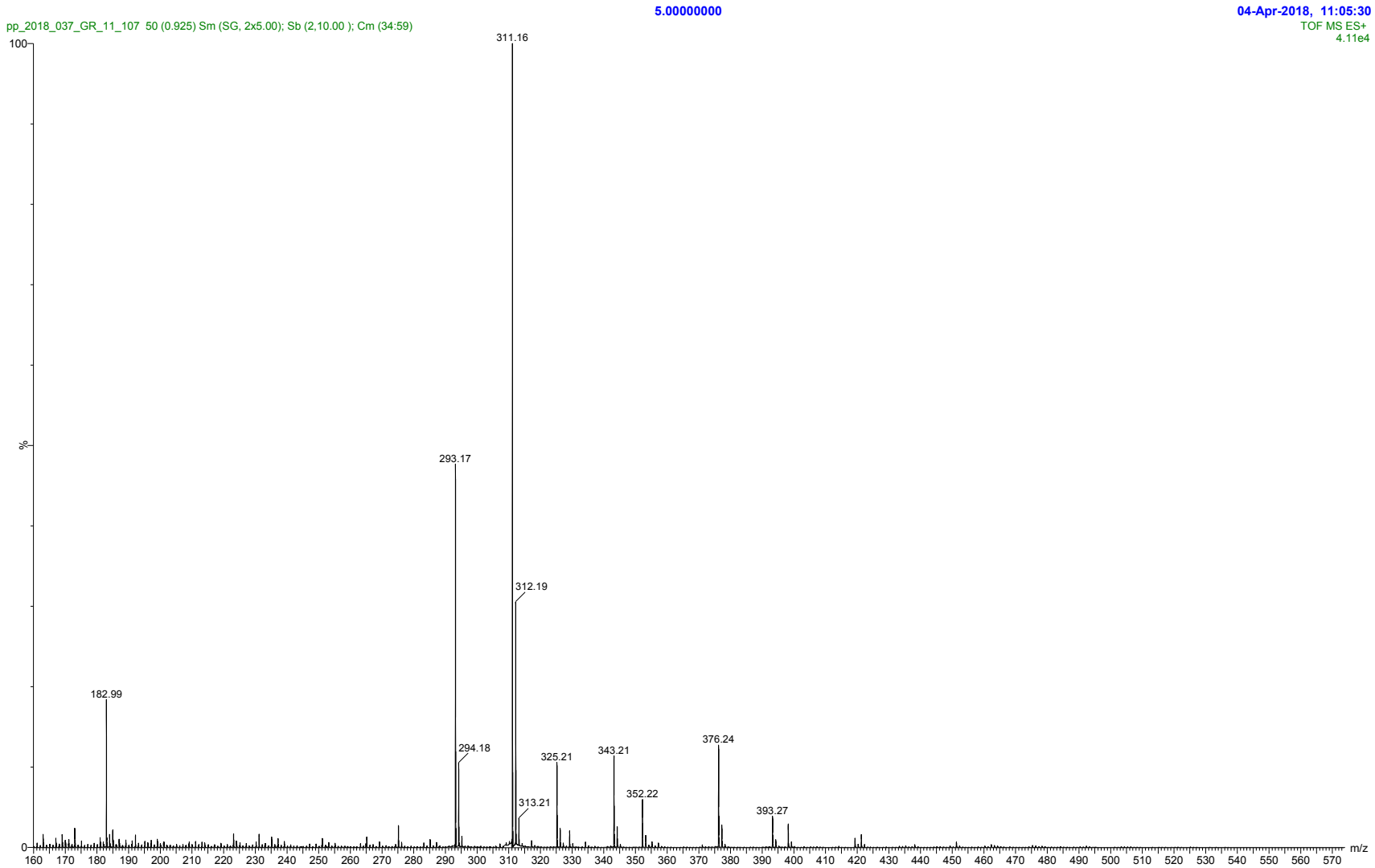
AB Sciex TOF/TOF™ Series Explorer™ 20511009

TOF/TOF™ Reflector Spec #1 MC[BP = 365.2, 16500]



Printed: 16:14, April 04, 2018

D:\MALDI FACILITY\MALDI_2018\PP_040418\N2_MS_2.t2d



Raw ESI-MS spectrum for sample GR-11-107. Shows monoisotopic [M+H]+ mass. Using the gentlest settings possible for ESI.

Data File C:\CHEM32\1\DATA\VR011823\SIG10910.D
Sample Name: GR-11-107

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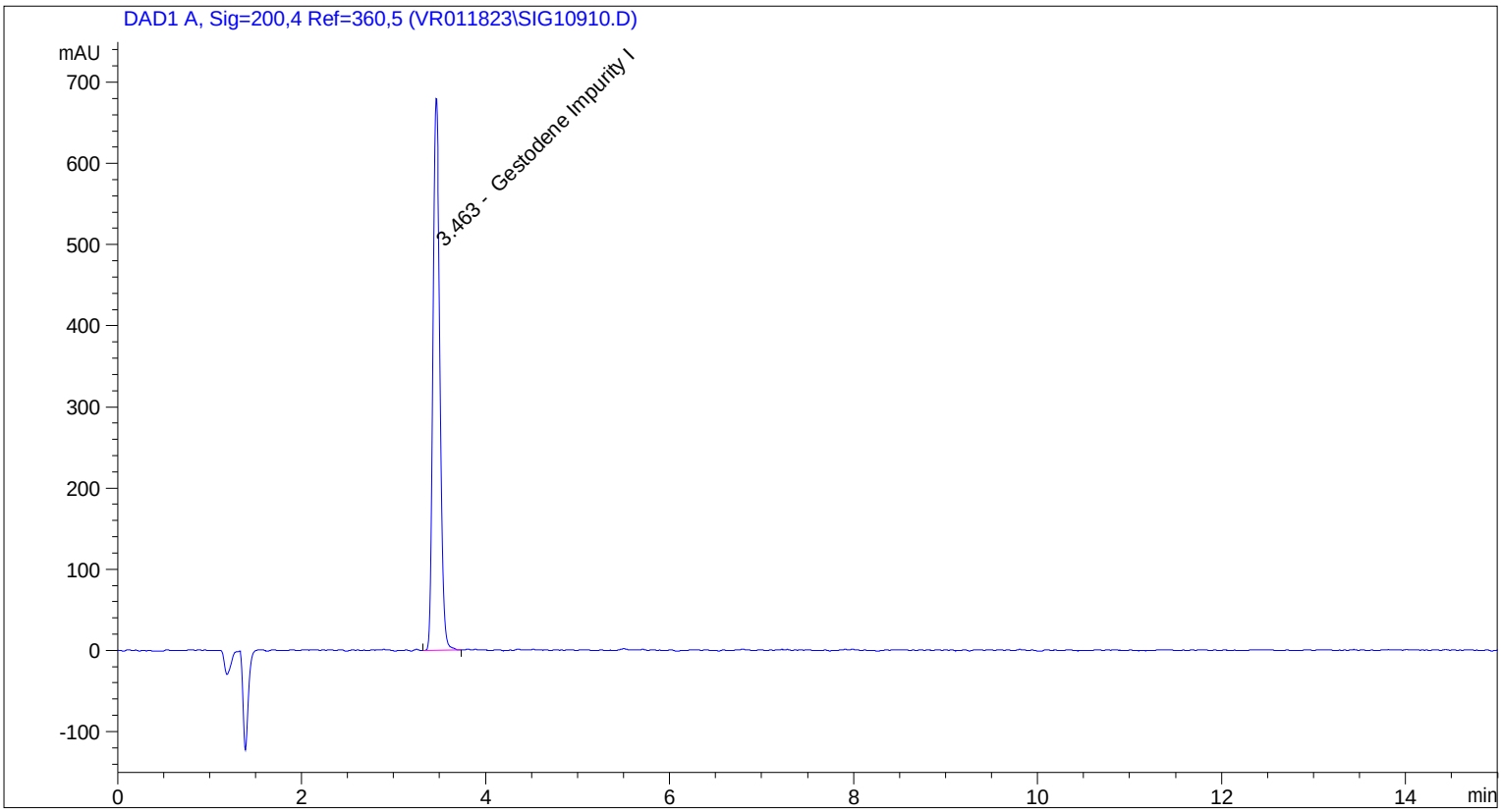
Acq. Operator : vrusu
Acq. Instrument : Instrument 1 Location : Vial 41
Injection Date : 2/16/2023 2:18:00 PM
Inj Volume : 10.0 µl
Acq. Method : C:\CHEM32\1\METHODS\VR021523_031_1.M
Last changed : 2/16/2023 2:16:59 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR021623_107PM.M
Last changed : 2/16/2023 3:14:35 PM by vrusu



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Area Percent Report

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Sorted By : Signal
Calib. Data Modified : 2/16/2023 3:13:16 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=200,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	3.463	BB	0.0869	3677.73901	100.0000	Gestodene Impurity I

Totals : 3677.73901

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*** End of Report ***

Data File C:\CHEM32\1\DATA\VR011823\SIG10911.D
Sample Name: GR-11-107 spl-2

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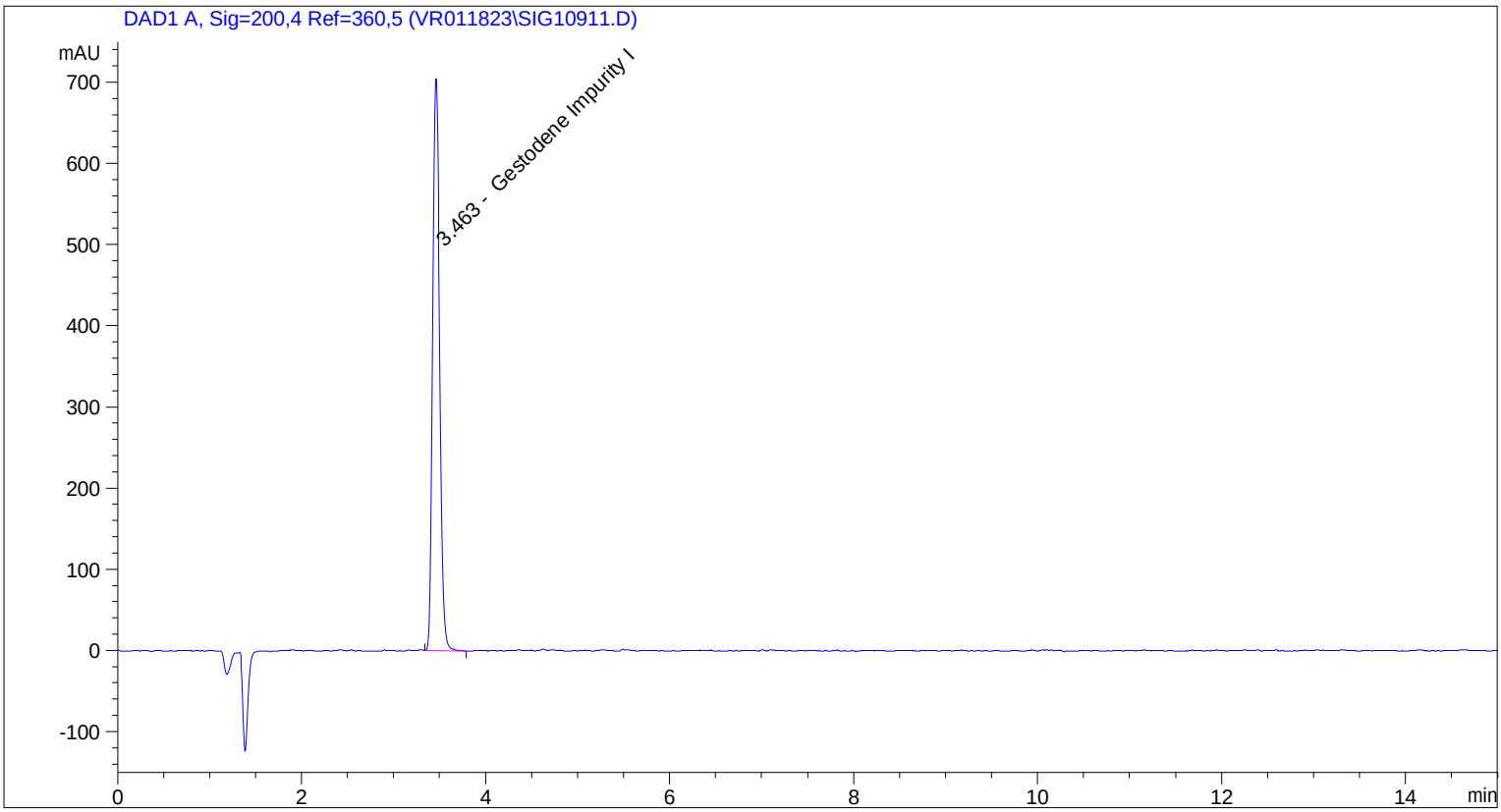
Acq. Operator : vrusu
Acq. Instrument : Instrument 1 Location : Vial 42
Injection Date : 2/16/2023 2:40:10 PM
Inj Volume : 10.0 µl
Acq. Method : C:\CHEM32\1\METHODS\VR021523_031_1.M
Last changed : 2/16/2023 2:39:14 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR021623_107PM.M
Last changed : 2/16/2023 3:14:35 PM by vrusu



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Area Percent Report

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Sorted By : Signal
Calib. Data Modified : 2/16/2023 3:13:16 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: DAD1 A, Sig=200,4 Ref=360,5

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Area %	Name
1	3.463	BB	0.0854	3829.18018	100.0000	Gestodene Impurity I

Totals : 3829.18018

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*** End of Report ***