

Name:	Ibrutinib Dihydrodiol
Lot#:	GR-12-009
Test Date:	02/27/2023 (re-test date: 02/27/2028)
CAS No.:	1226872-27-0
MF:	C ₂₅ H ₂₆ N ₆ O ₄
MW:	474.51
Appearance:	Off-White Solid
Purity:	98.8% by HPLC (average of two sample preparations)
¹H-NMR:	Conforms (shows a trace of EtOAc)
MS-ESI (+)	Conforms (shows peak at m/z = 475.20 [M+H] ⁺)
Storage	Store at 0-5°C in a dry place away from direct sunlight under nitrogen

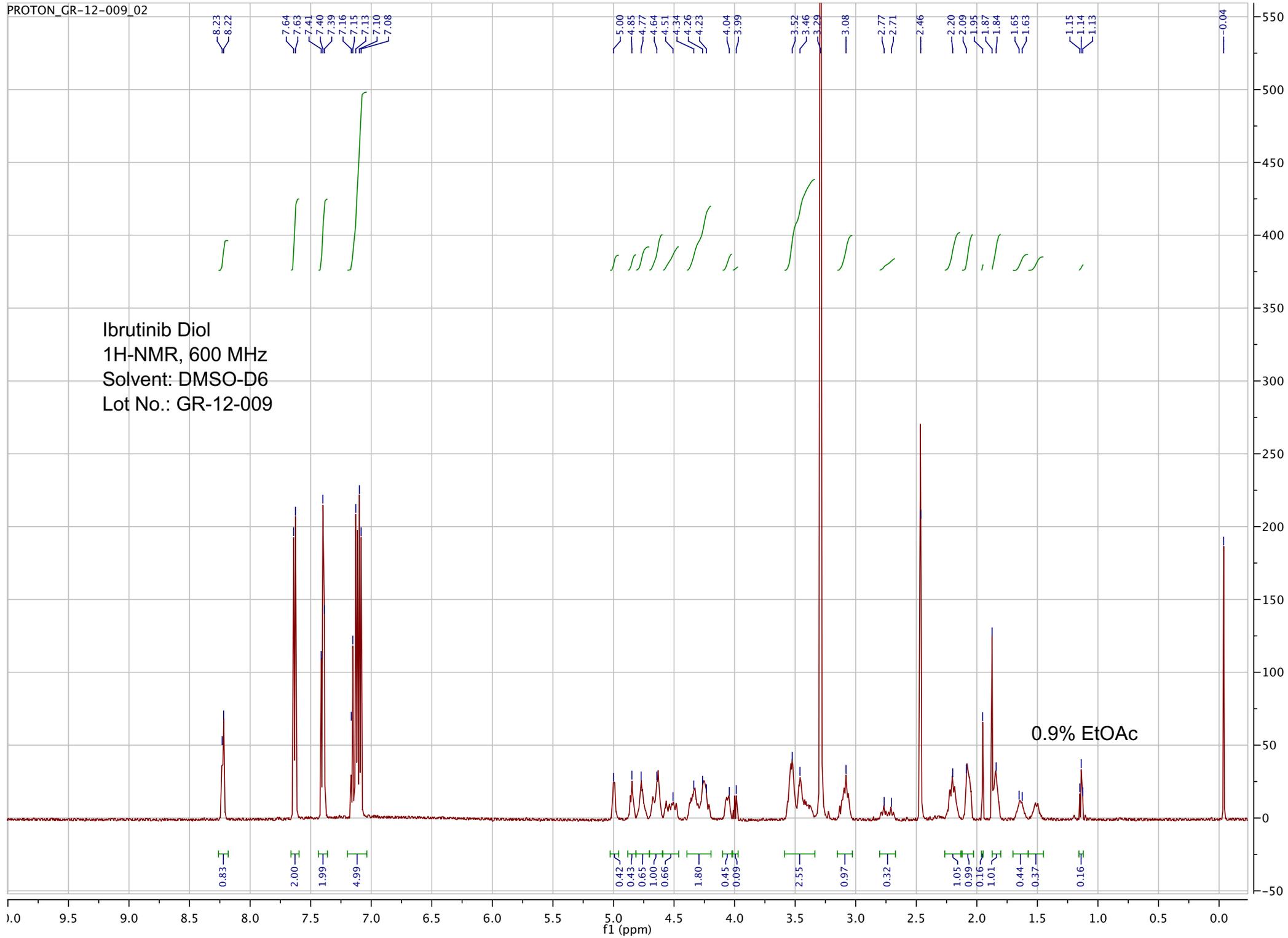
Approved by:

Date: 04/03/2023



Viorica Rusu, QC/QA Manager

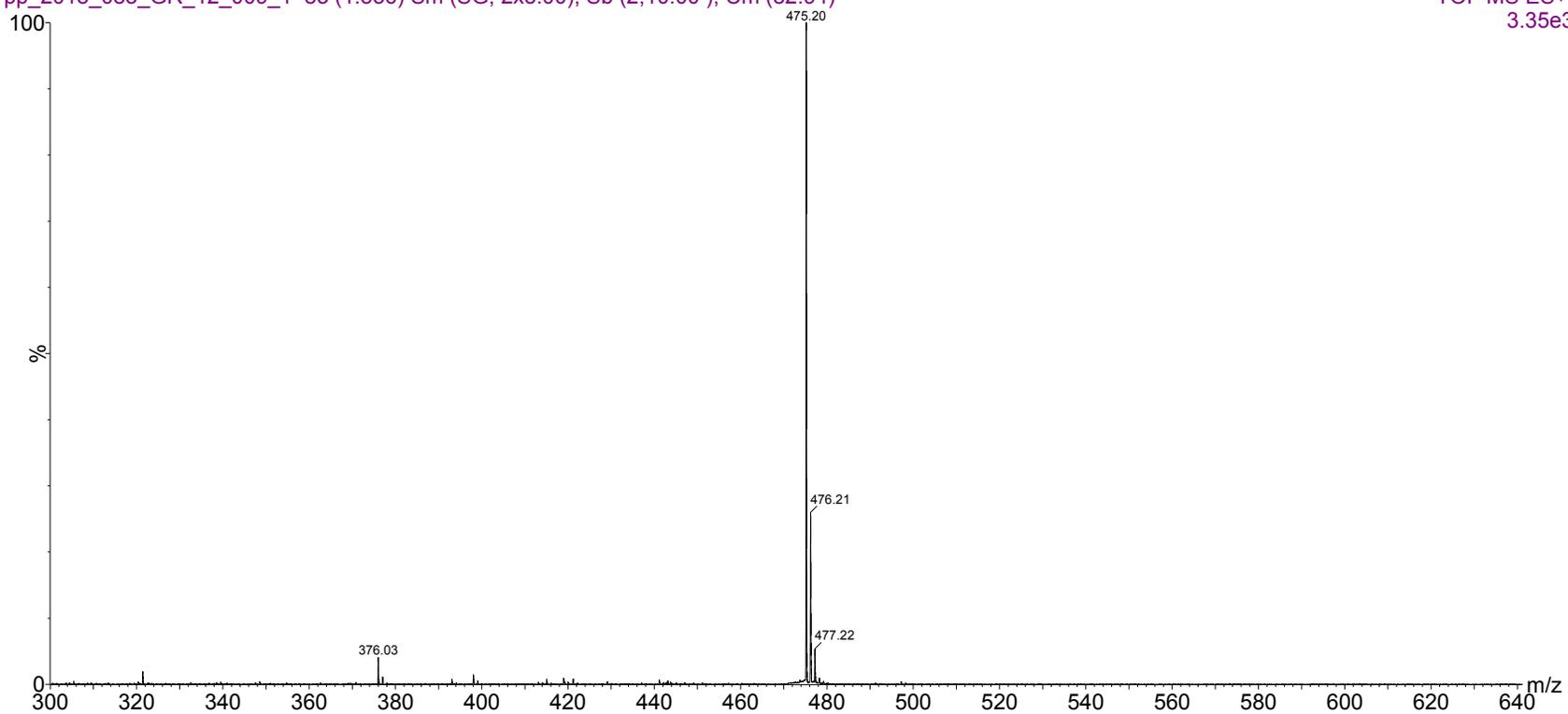
Ibrutinib Diol
1H-NMR, 600 MHz
Solvent: DMSO-D6
Lot No.: GR-12-009



24-Jul-2018, 16:10:58

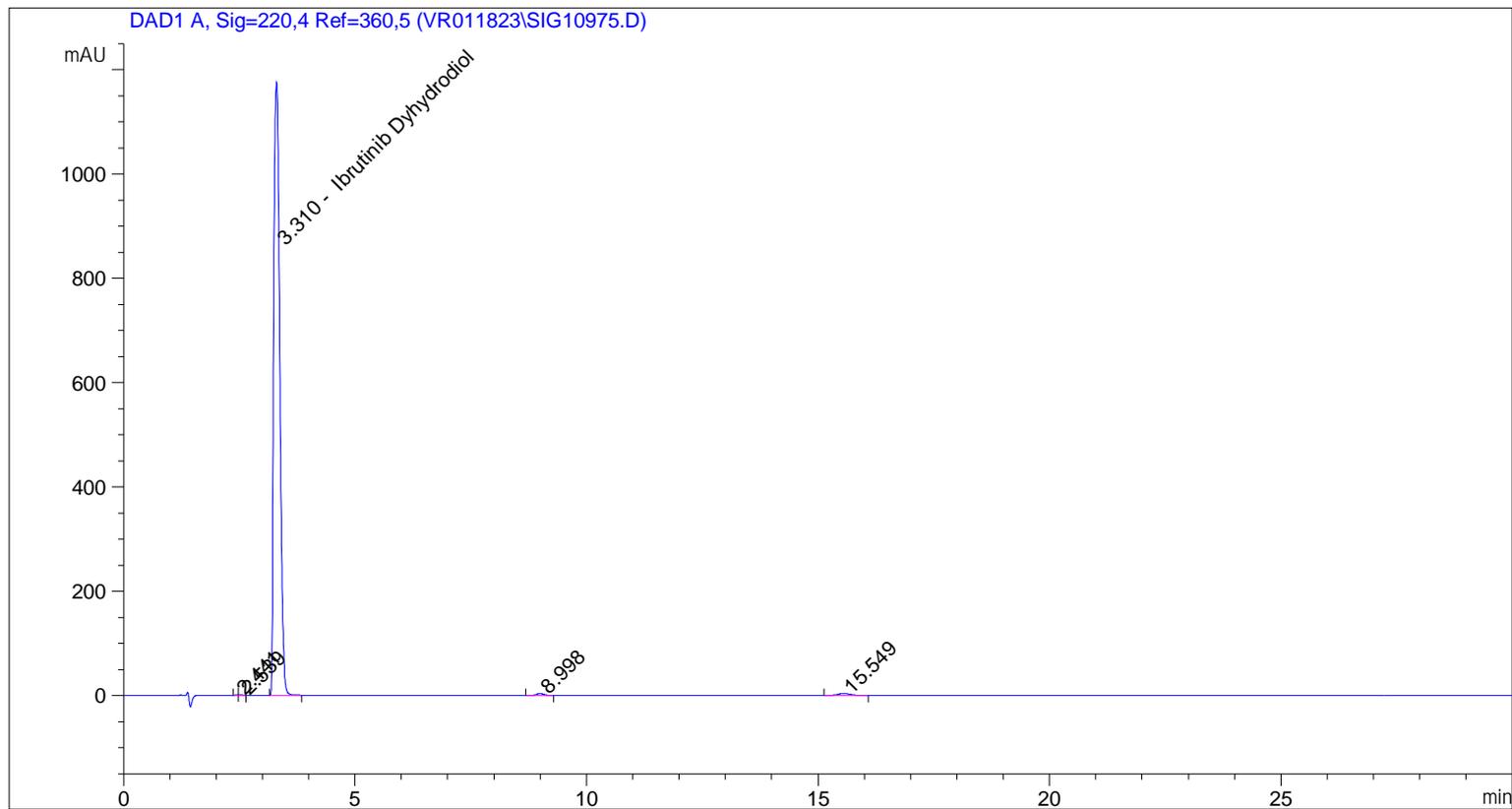
TOF MS ES+
3.35e3

pp_2018_083_GR_12_009_1 83 (1.536) Sm (SG, 2x5.00); Sb (2,10.00); Cm (82:94)



ESI-MS spectrum for sample GR-12-009. Shows monoisotopic $[M+H]^+$ mass.

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Acq. Operator : vrusu
Acq. Instrument : Instrument 1 Location : Vial 84
Injection Date : 2/27/2023 2:38:49 PM Inj Volume : 5.0 µl
Acq. Method : C:\CHEM32\1\METHODS\VR022723_009.M
Last changed : 2/27/2023 2:37:46 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR022723_009PM.M
Last changed : 2/27/2023 3:14:45 PM by vrusu



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Area Percent Report
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Sorted By : Signal
Calib. Data Modified : 2/27/2023 3:13:51 PM
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	2.441	BV	0.0626	3.49773	0.0329	?
2	2.539	VB	0.0705	5.60147	0.0527	?
3	3.310	BB	0.1441	1.04954e4	98.7496	Ibrutinib Dyhydrodiol
4	8.998	BB	0.1836	44.95560	0.4230	?
5	15.549	BB	0.2839	78.84277	0.7418	?

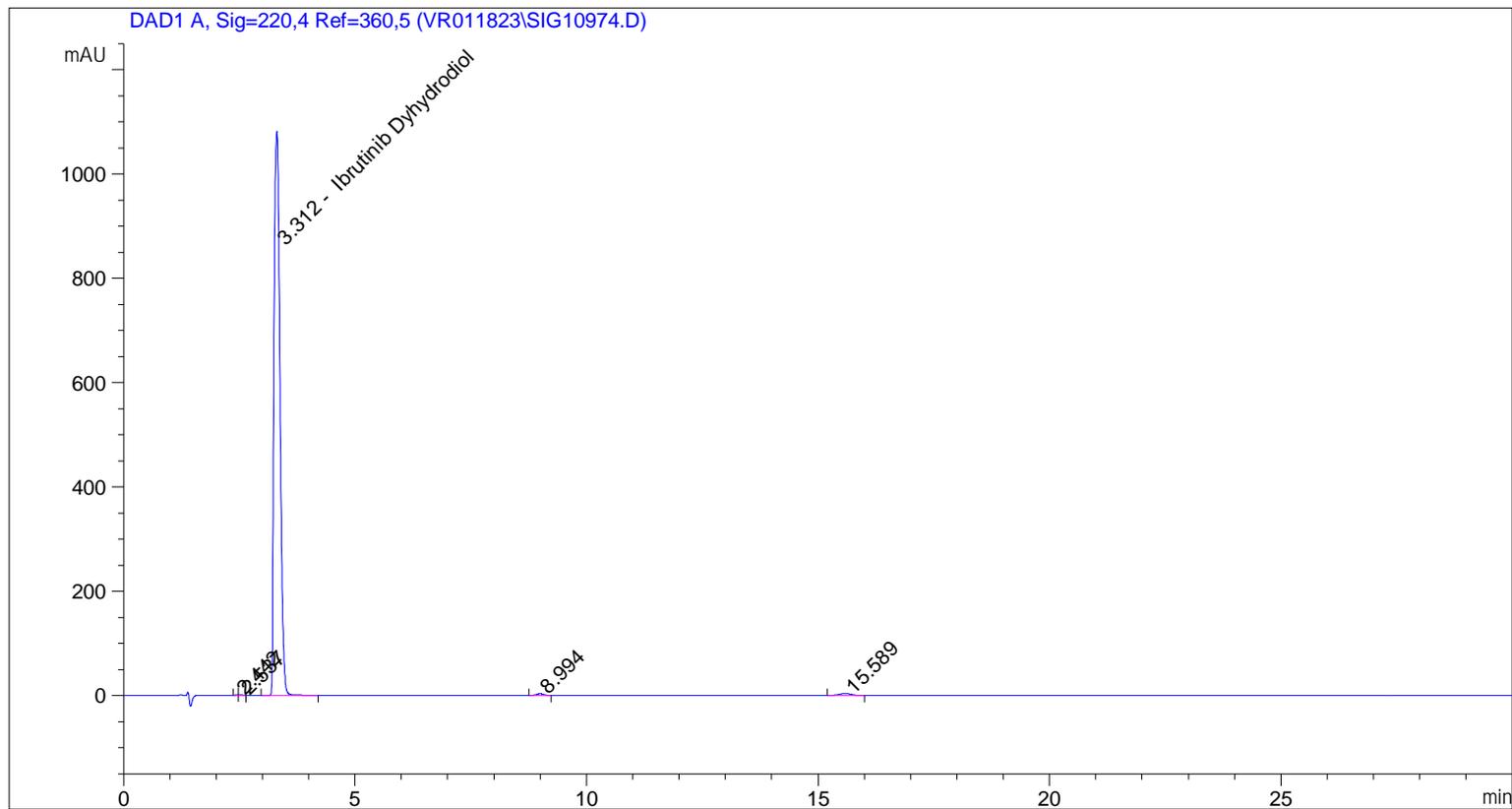
Totals : 1.06283e4

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*** End of Report ***

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Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 83
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                                           Inj Volume : 5.0 µl
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Last changed    : 2/27/2023 2:05:43 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR022723_009PM.M
Last changed    : 2/27/2023 3:14:45 PM by vrusu
  
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 Area Percent Report
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Sorted By           :      Signal
Calib. Data Modified :      2/27/2023 3:13:51 PM
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	2.442	BV	0.0645	3.36913	0.0349	?
2	2.537	VB	0.0721	5.61430	0.0582	?
3	3.312	BB	0.1409	9538.86523	98.8091	Ibrutinib Dyhydrodiol
4	8.994	BB	0.1700	36.46278	0.3777	?
5	15.589	BB	0.2833	69.52334	0.7202	?

Totals : 9653.83478

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*** End of Report ***