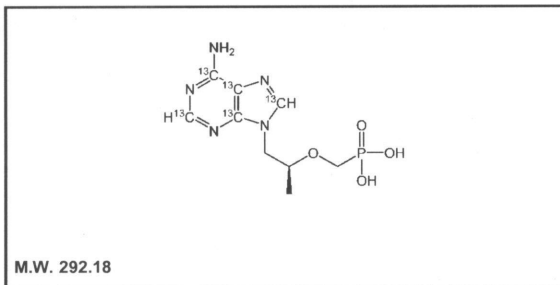




## Product Data Sheet

**MG-109**

**Tenofovir, [adenine-<sup>13</sup>C<sub>5</sub>]-**

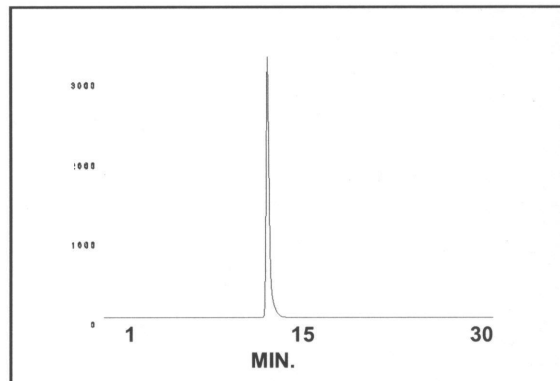


**Lot #:** 807-041-000-A-20080424-PV

**Packaged as:** Solid

**Date of Analysis:** August 26, 2009

**Chemical Purity @ 260nm:** 99.7%



HPLC ANALYSIS LOT 807-041-000-A-20080424-PV  
File Name: int42104 Date and Time: 8/26/2009 10:56:49 A  
Unit 4 UV

Peak #	Area %	Time	Area
1	0.04	11.46330	2.15256
2	0.07	11.93330	3.84250
3	99.79	12.61330	5663.43316
4	0.01	14.85670	0.42602
5	0.06	16.20000	3.35762
6	0.04	22.71330	2.16690
Totals	100.00		5675.37876

**Storage Recommendation:** Store at 0-5°C.

**Product Warranty:** Stated on the reverse side of this Product Data Sheet.

**Caution:** Not For Use In Humans Or Clinical Diagnosis. This product is intended for investigational or manufacturing use only. It is pharmaceutically unrefined and is not intended for use in humans. Responsibility for its use in humans, as a diagnostic reagent, and compliance with federal laws rests solely with the purchaser.

**MG-109**

**Tenofovir, [adenine-<sup>13</sup>C<sub>5</sub>]-**

**Lot 807-041-000-A-20080424-PV**

**A) All chromatograms were run using the HPLC method described on the Product Data Sheet.**

**Concentrations and volumes:**

**Tenofovir, [adenine-<sup>13</sup>C<sub>5</sub>]-** solution concentration was 1.0 mg/mL.

Volume of **Tenofovir, [adenine-<sup>13</sup>C<sub>5</sub>]-** injection was 2.5 µL.

Volume of blank injection was 2.5 µL.

**B) Mass spectrometry – Positive mode**

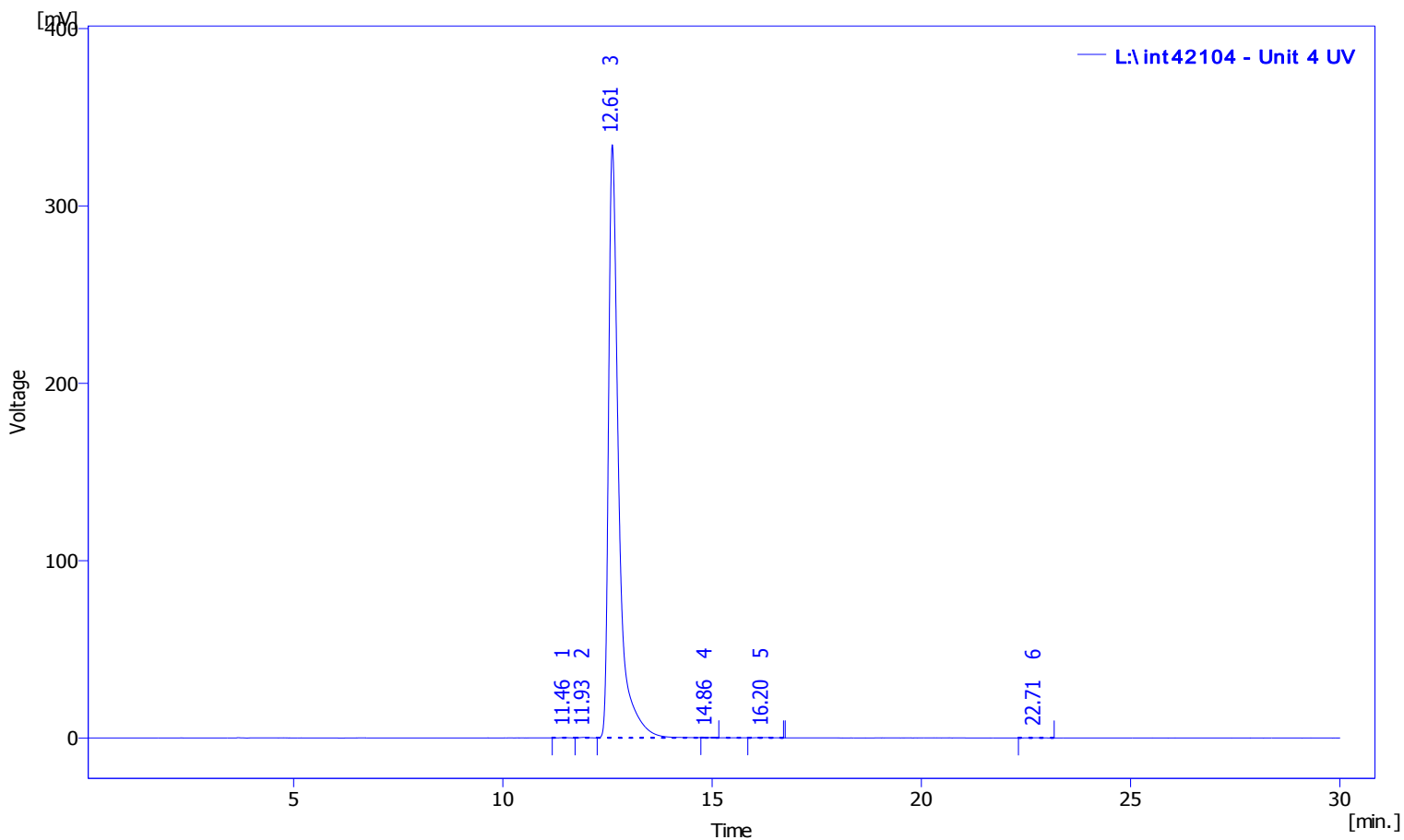
**C) NMR**

**D) UV Spectrum**

**MG-109**  
**Tenofovir, [adenine-13C5]-**  
**Lot 807-041-000-A-20080424-PV**

Chromatogram Info:

File Name	: L:\int42104	File Created	: 2/19/2014 2:03:40 PM
Origin	: Acquired, Acquisition started 8/26/2009 10:26:50 AM	Acquired Date	: 8/26/2009 10:56:49 AM
Project	: Test	By	: Administrator
Method	: Unit4-30minrun	By	: Administrator
Description	: UV trace of Tenofovir, [adenine-13C5]-	Modified	: 2/19/2014 2:11 PM
Created	: 8/7/2007 9:44 AM		
Column	:	Detection	: UV 260nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



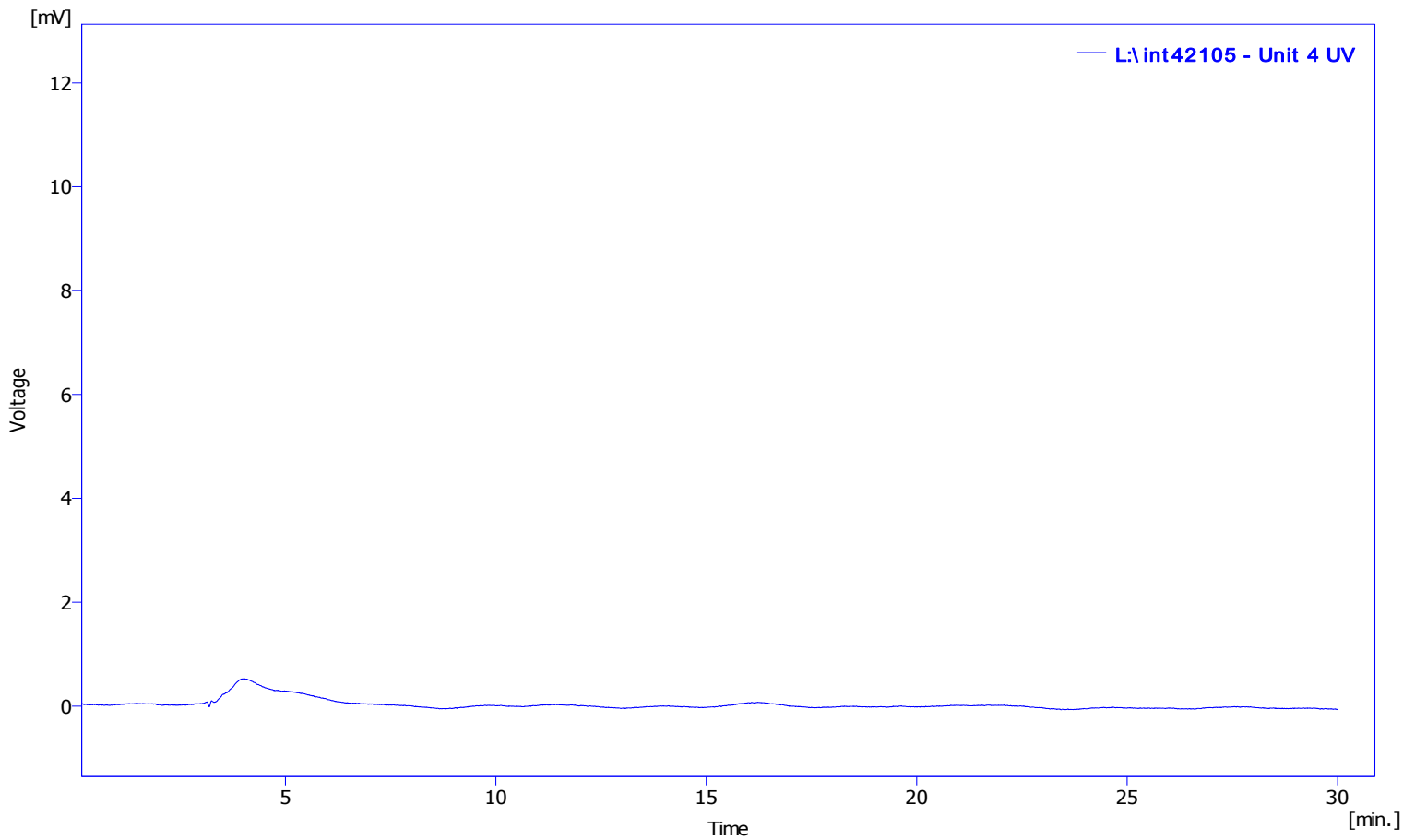
Result Table (Uncal - L:\int42104 - Unit 4 UV)

	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/I [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
1		11.46	2.153	0.15	0.04	0.04	15996.10	319922.04	0.99		
2		11.93	3.843	0.26	0.07	0.08	16805.41	336108.19	1.27		1.3
3		12.61	5663.433	334.44	99.79	99.80	15736.04	314720.71	6.10		1.8
4		14.86	0.426	0.03	0.01	0.01	26867.98	537359.68	1.68		5.9
5		16.20	3.358	0.14	0.06	0.04	11013.60	220272.00	1.23		2.7
6		22.71	2.167	0.09	0.04	0.03	20877.00	417539.98	1.07		10.5
		Total	5675.379	335.12	100.00	100.00					

**MG-109**  
**Tenofovir, [adenine-13C5]-**  
**Lot 807-041-000-A-20080424-PV**

Chromatogram Info:

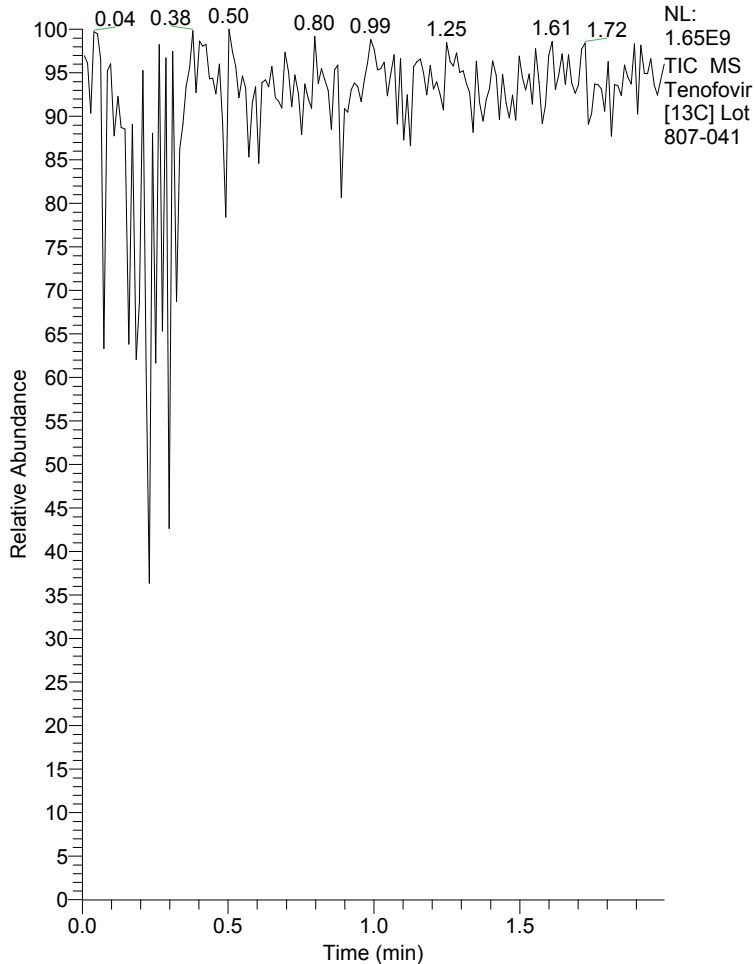
File Name	: L:\int42105	File Created	: 2/19/2014 2:03:40 PM
Origin	: Acquired, Acquisition started 8/26/2009 12:29:50 PM	Acquired Date	: 8/26/2009 12:59:49 PM
Project	: Test	By	: Administrator
Method	: Unit4-30minrun	By	: Administrator
Description	: UV trace of blank injection	Modified	: 2/19/2014 2:07 PM
Created	: 8/7/2007 9:44 AM		
Column	:	Detection	: UV 254nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



*Result Table (Uncal - L:\int42105 - Unit 4 UV)*

Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/l [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
No peak to report										

RT: 0.00 - 1.99



Tenofovir [13C] Lot 807-041#1-176 RT:

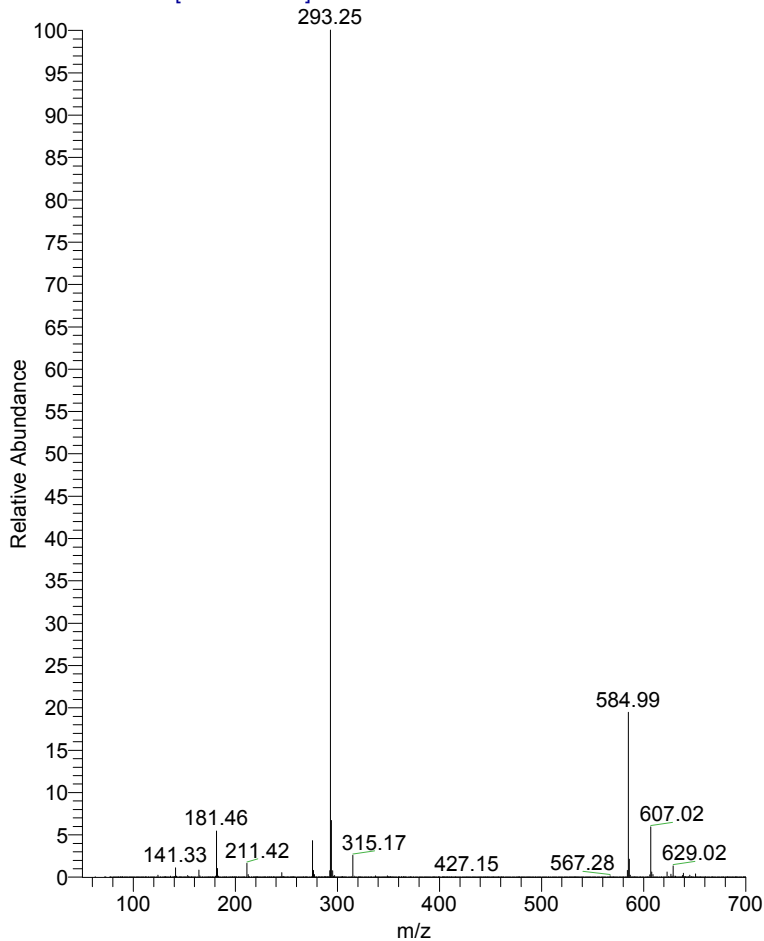
T: + c NSI Full ms [50.00-700.00]

m/z= 283.22-311.39

m/z	Intensity	Relative
289.59	436245.5	0.05
290.17	313220.9	0.04
291.12	552061.4	0.06
291.97	74664.1	0.01
292.50	6670558.5	0.75
293.25	892778705.1	100.00
294.25	59438842.0	6.66
295.23	6627455.1	0.74
295.87	972984.8	0.11
296.43	3929.6	0.00
297.21	1667618.6	0.19
298.20	141165.6	0.02
299.14	328780.4	0.04
300.19	98070.8	0.01
301.11	154327.2	0.02
302.02	67839.8	0.01
303.17	102487.9	0.01
303.83	7927.4	0.00
304.43	93491.7	0.01
305.17	639869.9	0.07
306.17	86056.7	0.01
307.24	447548.5	0.05
308.24	70875.8	0.01
309.21	164955.5	0.02

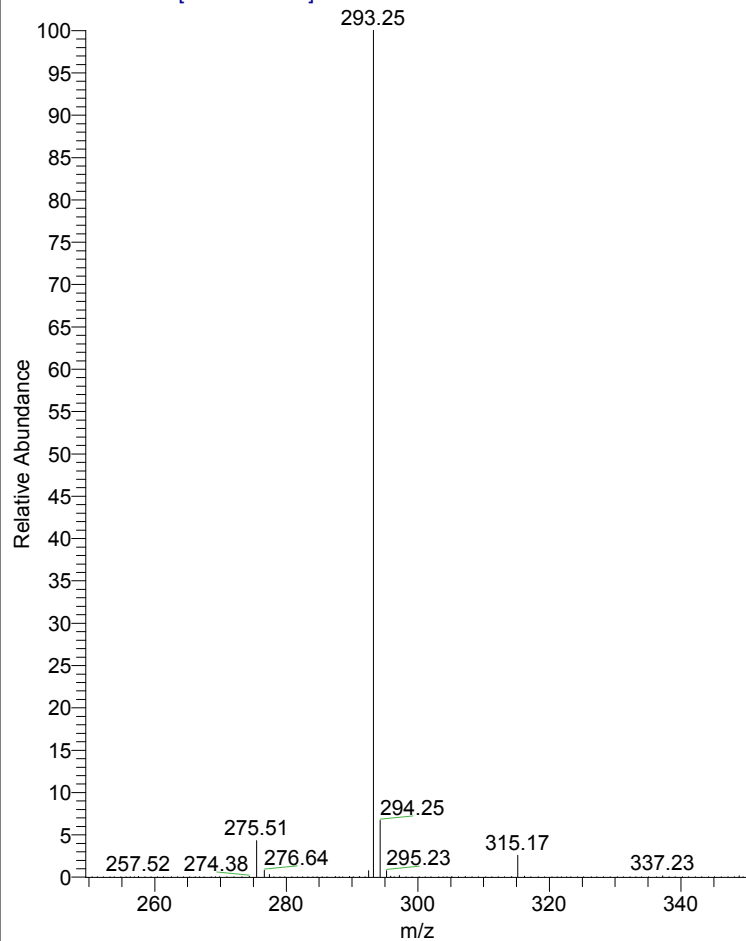
Tenofovir [13C] Lot 807-041 #1-176 RT: 0.01-1.99 AV: 176 NL: 8.93E8

T: + c NSI Full ms [50.00-700.00]



Tenofovir [13C] Lot 807-041 #1-176 RT: 0.01-1.99 AV: 176 NL: 8.93E8

T: + c NSI Full ms [50.00-700.00]



MG109 1H NMR in D2O  
Batch 20080424-PV



8.087  
8.051  
8.018  
7.966  
7.944  
7.927  
7.904

4.406  
4.367  
4.357  
4.209  
4.196  
4.182  
3.891  
3.881  
3.621  
3.590  
3.578  
3.547  
3.417  
3.384  
3.373  
3.341

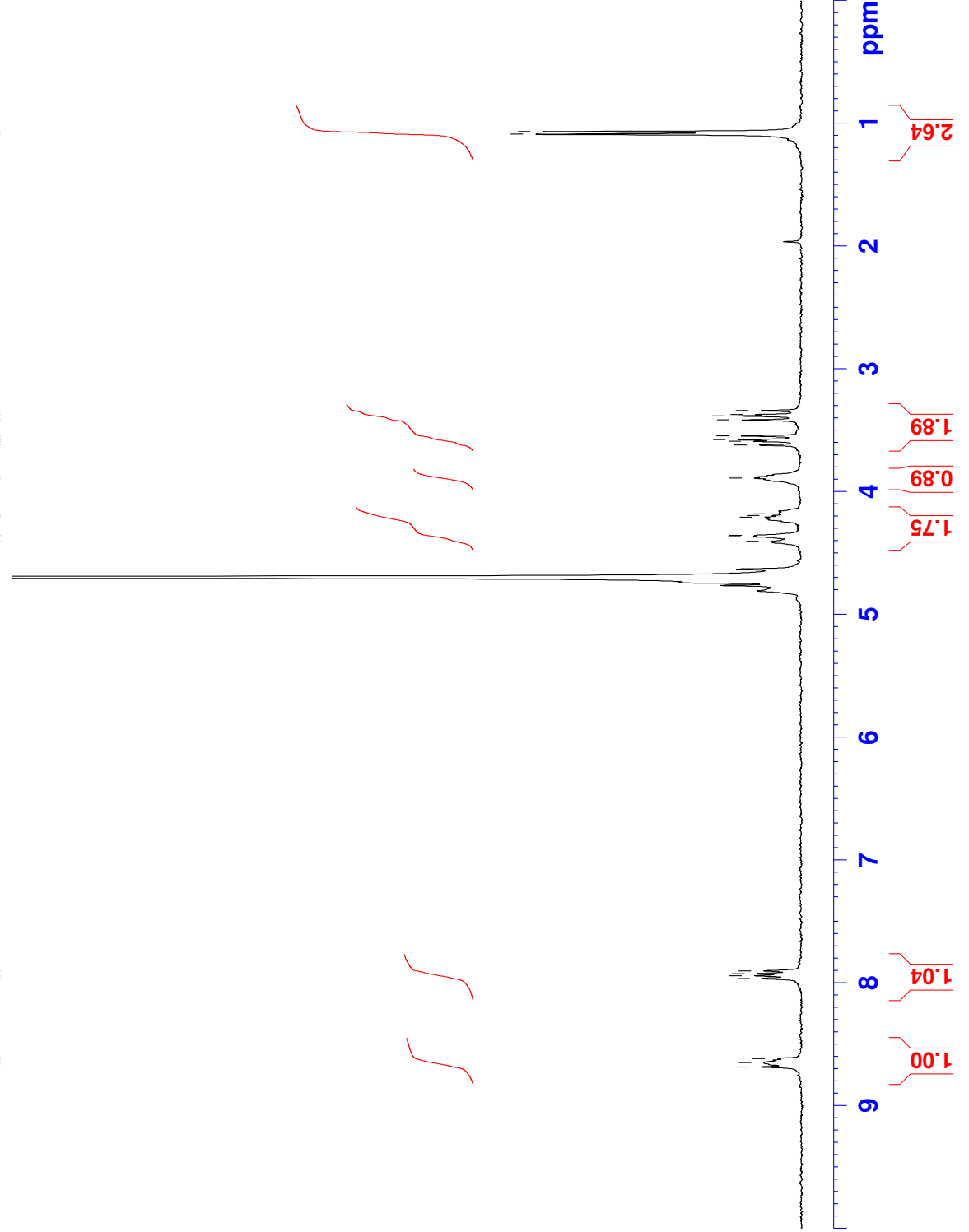
1.089  
1.069

Current Data Parameters  
NAME MG109  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameter  
Date\_ 20090318  
Time 12.03  
INSTRUM spect  
PROBHD 5 mm DUX 3H-1H  
PULPROG zg30  
TD 65536  
SOLVENT D2O  
NS 500  
DS 2  
SWH 6172.839 Hz  
FIDRES 0.094190 Hz  
AQ 5.3084660 se  
RG 362  
DW 81.000 us  
DE 6.00 us  
TE 300.0 K  
D1 1.00000000 se  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 10.25 us  
PL1 0.00 dB  
SF01 300.1318534 MH

F2 - Processing parameters  
SI 32768  
SF 300.1300000 MH  
WDW EM  
SSB 0  
LB 1.80 Hz  
GB 0  
PC 1.00





26/Aug/09 15:04:04

Peak detection

Abscis.	ABS	Abscis.	ABS
260.0	1.715		

Graph

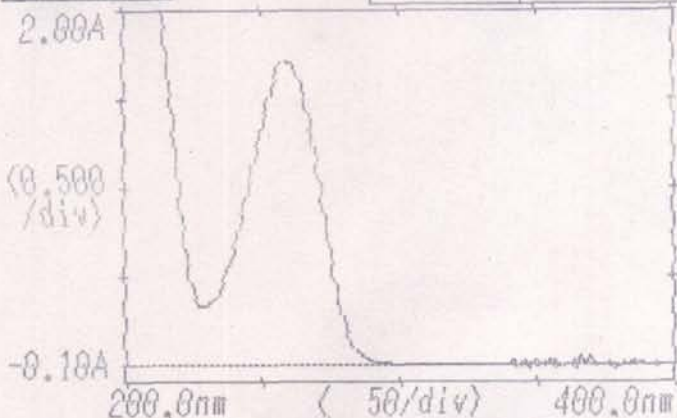
PrintOut

Valley

26/Aug/09 15:04:42

Spectrum

400.0nm 0.040A



Zoom

DataProc

ExtTrans

SaveCurve