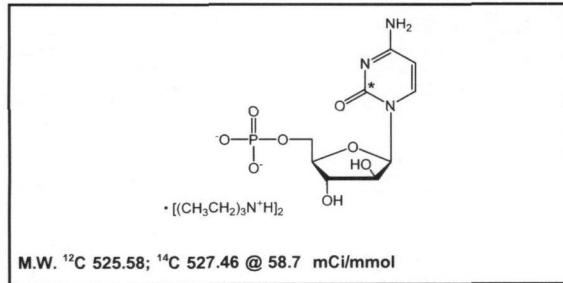




Product Data Sheet

MC-1145

Cytosine- β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium salt, [2- 14 C]-



Lot #: 548-030-0587-A-20090309-JH

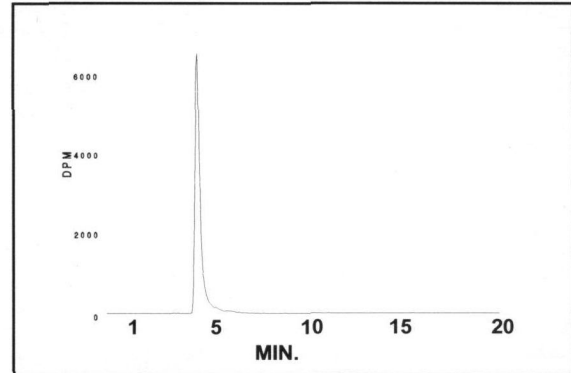
Specific Activity: 58.7 mCi/mmol

Concentration: 0.1 mCi/ml; 898.57 $\mu\text{g/ml}$

Packaged in: Ethanol : water (1 : 1) solution

Date of Analysis: March 18, 2010

Radiochemical Purity: 99.3%



HPLC ANALYSIS LOT 548-030-0587-A-20090309-JH
File Name: int20443 Date and Time: 3/18/2010 10:50:55 A
Unit 2 Radio

Peak #	Area %	Time	Area
1	99.35	4.62670	12400.61872
2	0.20	5.58000	25.47094
3	0.44	6.17330	55.24313
Totals	100.00		12481.33279

Stability and Storage Recommendation: Store at -20°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.

MC-1145

Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium salt, [2- ^{14}C]-

Lot 548-030-0587-A-20090309-JH

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

Concentrations and volumes:

Standard solution concentration was 1.0 mg/ml.

Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium salt, [2- ^{14}C]- concentration was 50.0 $\mu\text{Ci/ml}$.

Volume of standard alone injection was 1.0 μl .

Volume of **Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium salt, [2- ^{14}C]-** alone injection was 2.0 μl .

Co-injection solution consisted of 2.0 μl **Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium salt, [2- ^{14}C]-** + 2.0 μl standard.

Volume of co-injection was 4.0 μl .

Volume of blank injection was 2.0 μl .

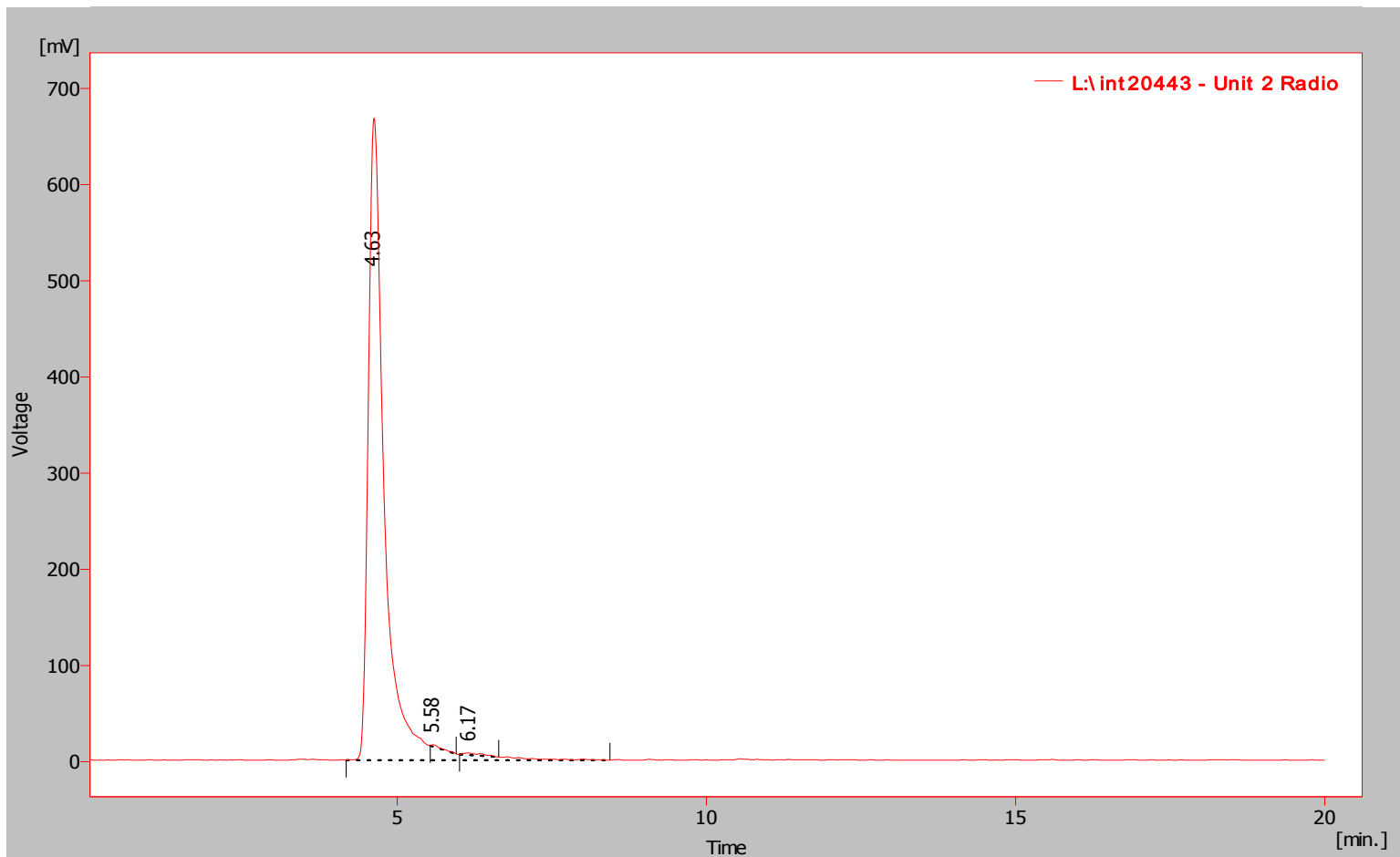
B) Mass spectrometry – Negative mode

C) NMR

MC-1145
Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium
salt, [2- 14 C]-
Lot 548-030-0587-A-20090309-JH

Chromatogram Info:

File Name	: L:\int20443	File Created	: 11/5/2013 11:42:39 AM
Origin	: Acquired, Acquisition started 3/18/2010 10:30:56 AM	Acquired Date	: 3/18/2010 10:50:55 AM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: Radiochemical trace of 14 C material alone	Modified	: 11/5/2013 12:04 PM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



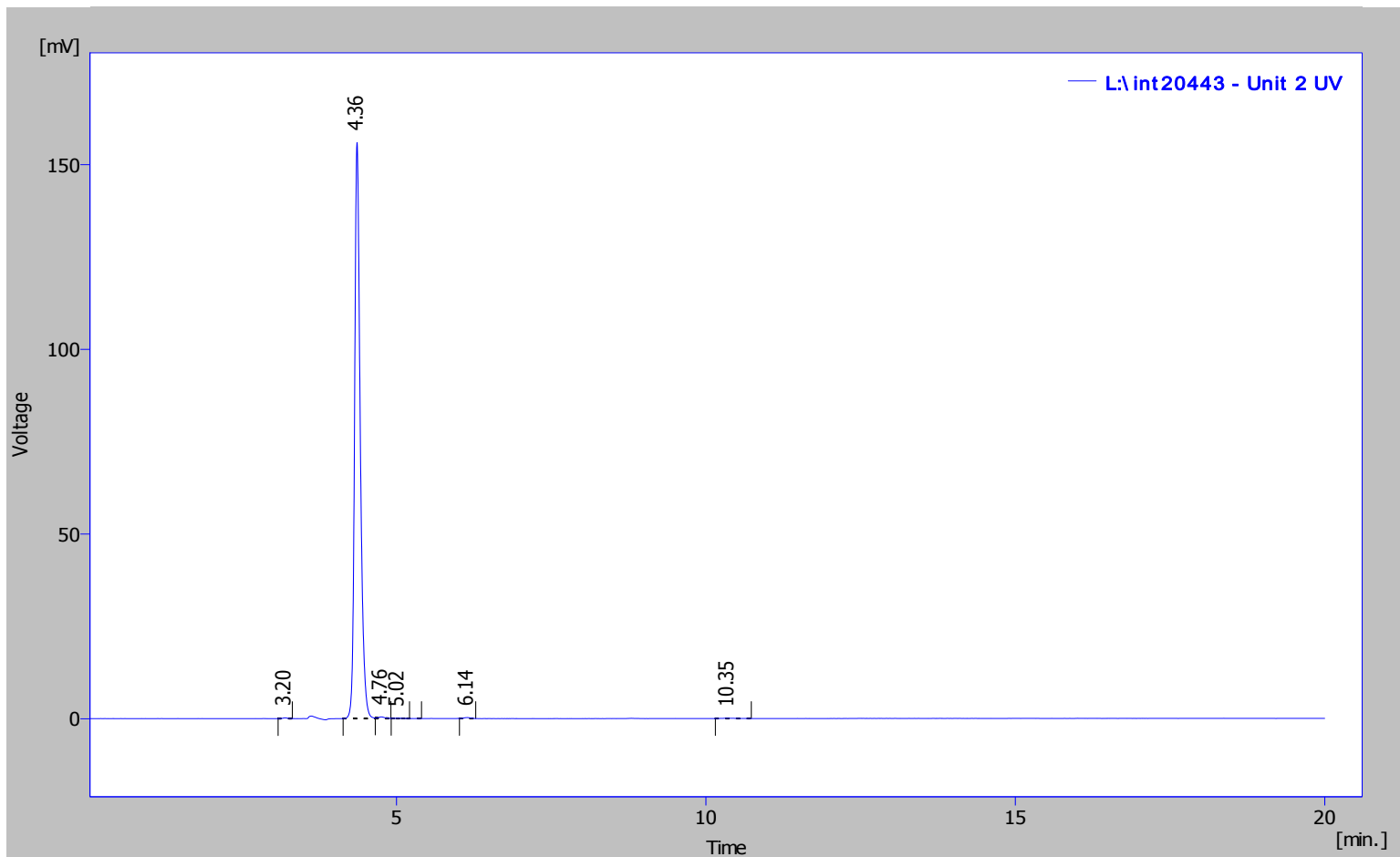
Result Table (Uncal - L:\int20443 - Unit 2 Radio)

	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		4.627	99.35	12400.619	667.457	99.392	1949.060
2		5.580	0.20	25.471	1.864	0.278	19801.797
3		6.173	0.44	55.243	2.215	0.330	3469.991
	Total		100.00	12481.333	671.536	100.000	

MC-1145
Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium
salt, [2- 14 C]-
Lot 548-030-0587-A-20090309-JH

Chromatogram Info:

File Name	: L:\int20443	File Created	: 11/5/2013 11:42:39 AM
Origin	: Acquired, Acquisition started 3/18/2010 10:30:56 AM	Acquired Date	: 3/18/2010 10:50:55 AM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of 14C material alone		
Created	: 8/8/2007 9:12 AM	Modified	: 11/5/2013 12:06 PM
Column	:	Detection	: UV 270nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



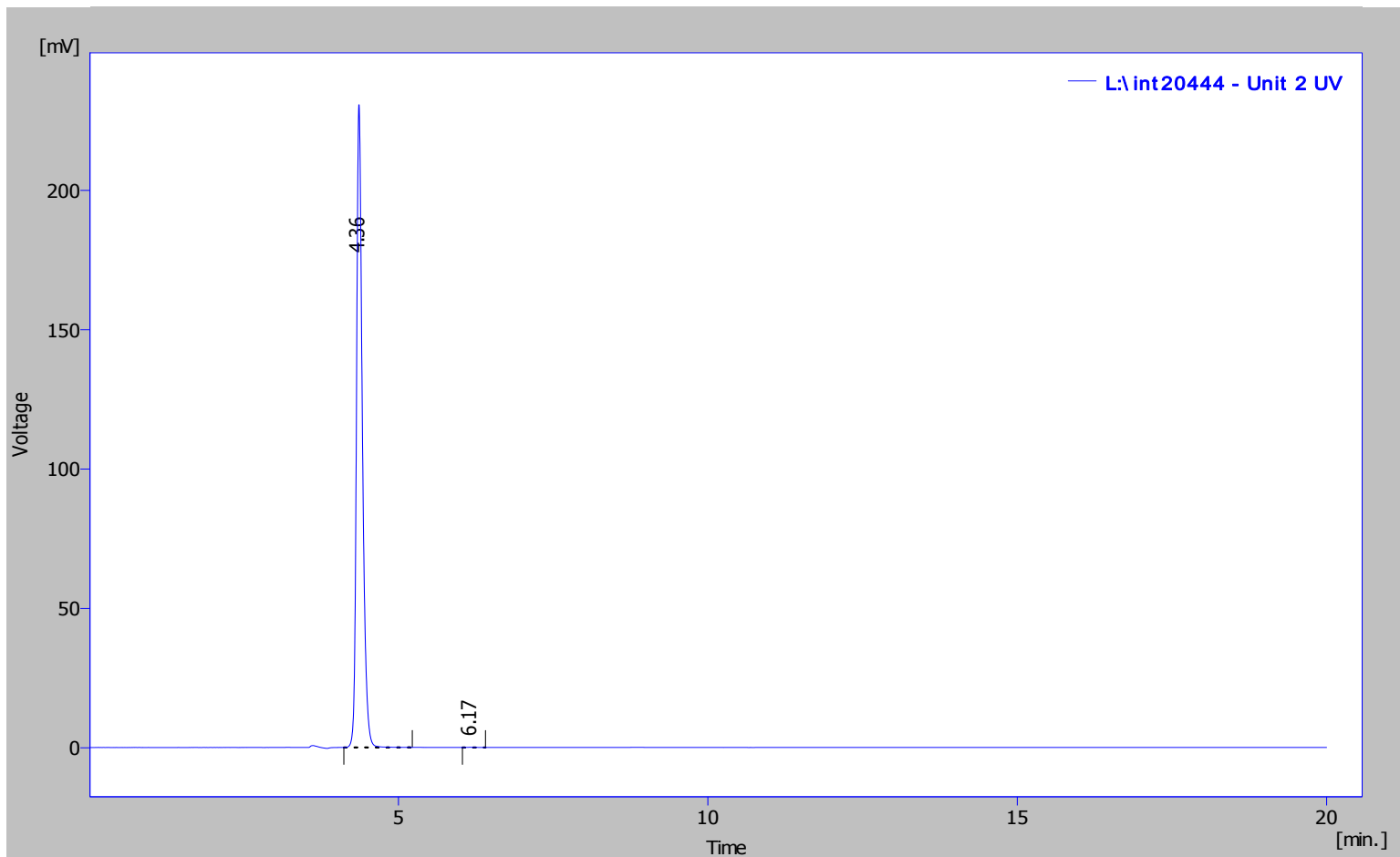
Result Table (Uncal - L:\int20443 - Unit 2 UV)

	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		3.197	0.10	0.999	0.196	0.125	8152.052
2		4.363	99.36	996.009	155.897	99.420	11287.378
3		4.757	0.19	1.925	0.331	0.211	14389.366
4		5.023	0.03	0.311	0.045	0.028	16047.974
5		6.143	0.19	1.897	0.260	0.166	14519.626
6		10.353	0.13	1.306	0.078	0.050	8784.630
		Total	100.00	1002.447	156.806	100.000	

MC-1145
Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium
salt, [2- 14 C]-
Lot 548-030-0587-A-20090309-JH

Chromatogram Info:

File Name	: L:\int20444	File Created	: 11/5/2013 11:42:39 AM
Origin	: Acquired, Acquisition started 3/18/2010 10:54:45 AM	Acquired Date	: 3/18/2010 11:14:43 AM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of standard material alone		
Created	: 8/8/2007 9:12 AM	Modified	: 11/5/2013 12:07 PM
Column	:	Detection	: UV 270nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



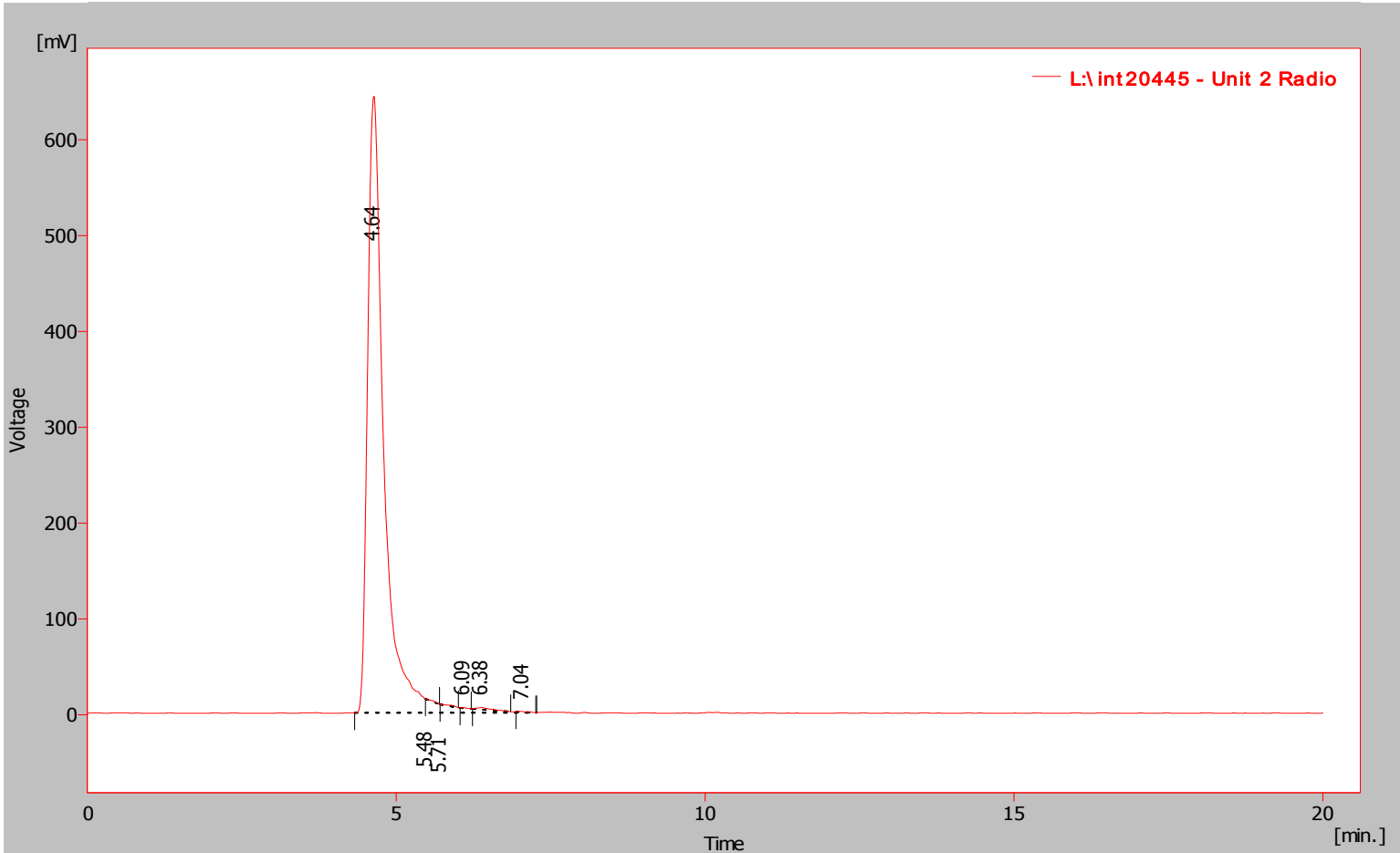
Result Table (Uncal - L:\int20444 - Unit 2 UV)

	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		4.360	99.96	1531.973	230.596	99.975	9862.837
2		6.167	0.04	0.539	0.057	0.025	10254.543
		Total	100.00	1532.512	230.653	100.000	

MC-1145
Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium salt, [2-¹⁴C]-
Lot 548-030-0587-A-20090309-JH

Chromatogram Info:

File Name	: L:\int20445	File Created	: 11/5/2013 11:42:39 AM
Origin	: Acquired, Acquisition started 3/18/2010 11:18:44 AM	Acquired Date	: 3/18/2010 11:38:43 AM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: Radiochemical trace of ¹⁴ C material co-injected with standard	Modified	: 11/5/2013 12:08 PM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



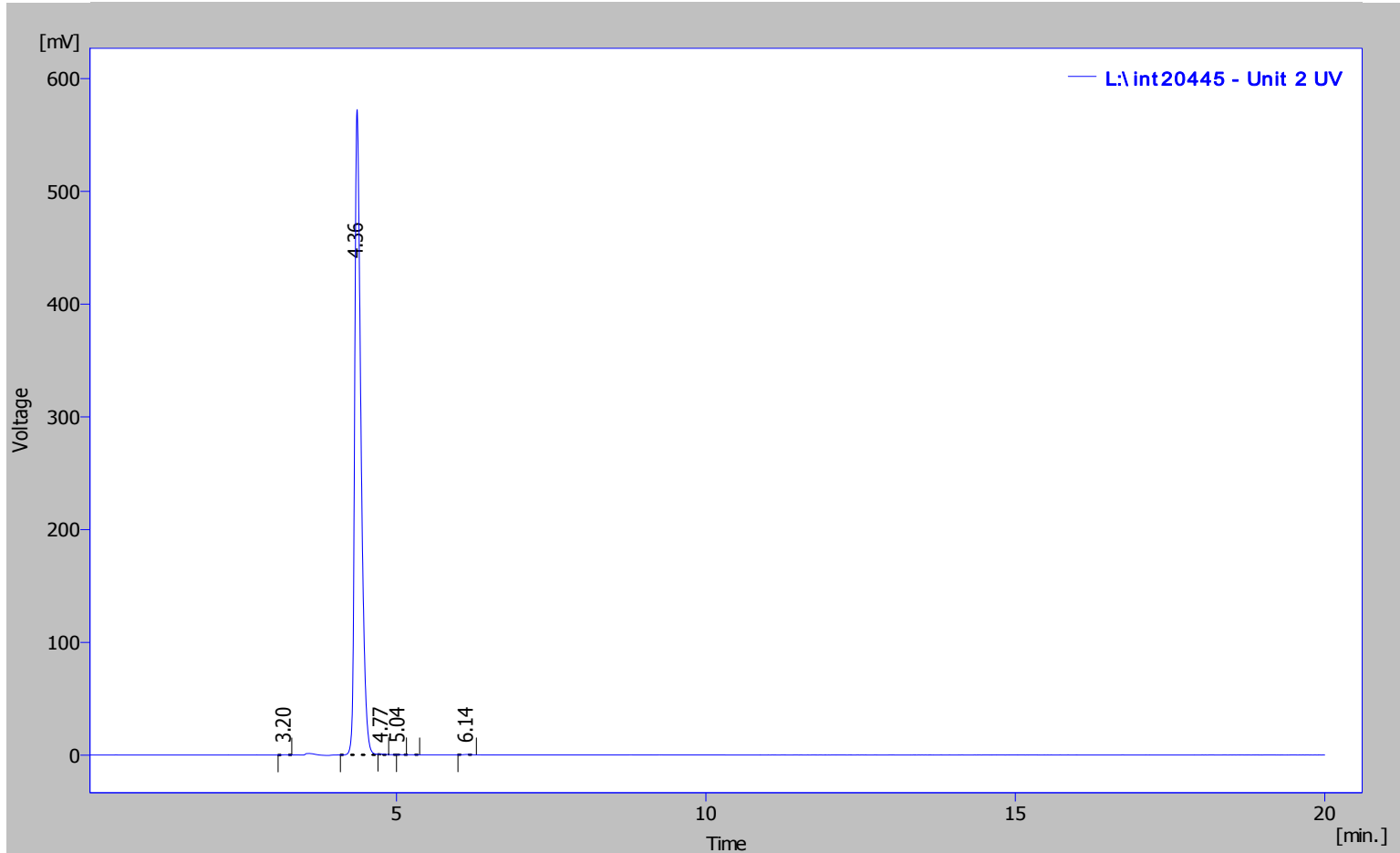
Result Table (Uncal - L:\int20445 - Unit 2 Radio)

	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		4.640	99.40	12032.848	643.216	99.412	1908.384
2		5.480	0.07	8.195	0.049	0.008	1663684.160
3		5.713	0.11	12.768	0.002	0.000	4068847.460
4		6.093	0.03	3.867	0.795	0.123	34995.038
5		6.380	0.32	38.857	2.163	0.334	4659.140
6		7.043	0.08	9.378	0.793	0.123	18067.802
		Total	100.00	12105.913	647.018	100.000	

MC-1145
Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium
salt, [2- 14 C]-
Lot 548-030-0587-A-20090309-JH

Chromatogram Info:

File Name	: L:\int20445	File Created	: 11/5/2013 11:42:39 AM
Origin	: Acquired, Acquisition started 3/18/2010 11:18:44 AM	Acquired Date	: 3/18/2010 11:38:43 AM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of 14 C material co-injected with standard		
Created	: 8/8/2007 9:12 AM	Modified	: 11/5/2013 12:10 PM
Column	:	Detection	: UV 270nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



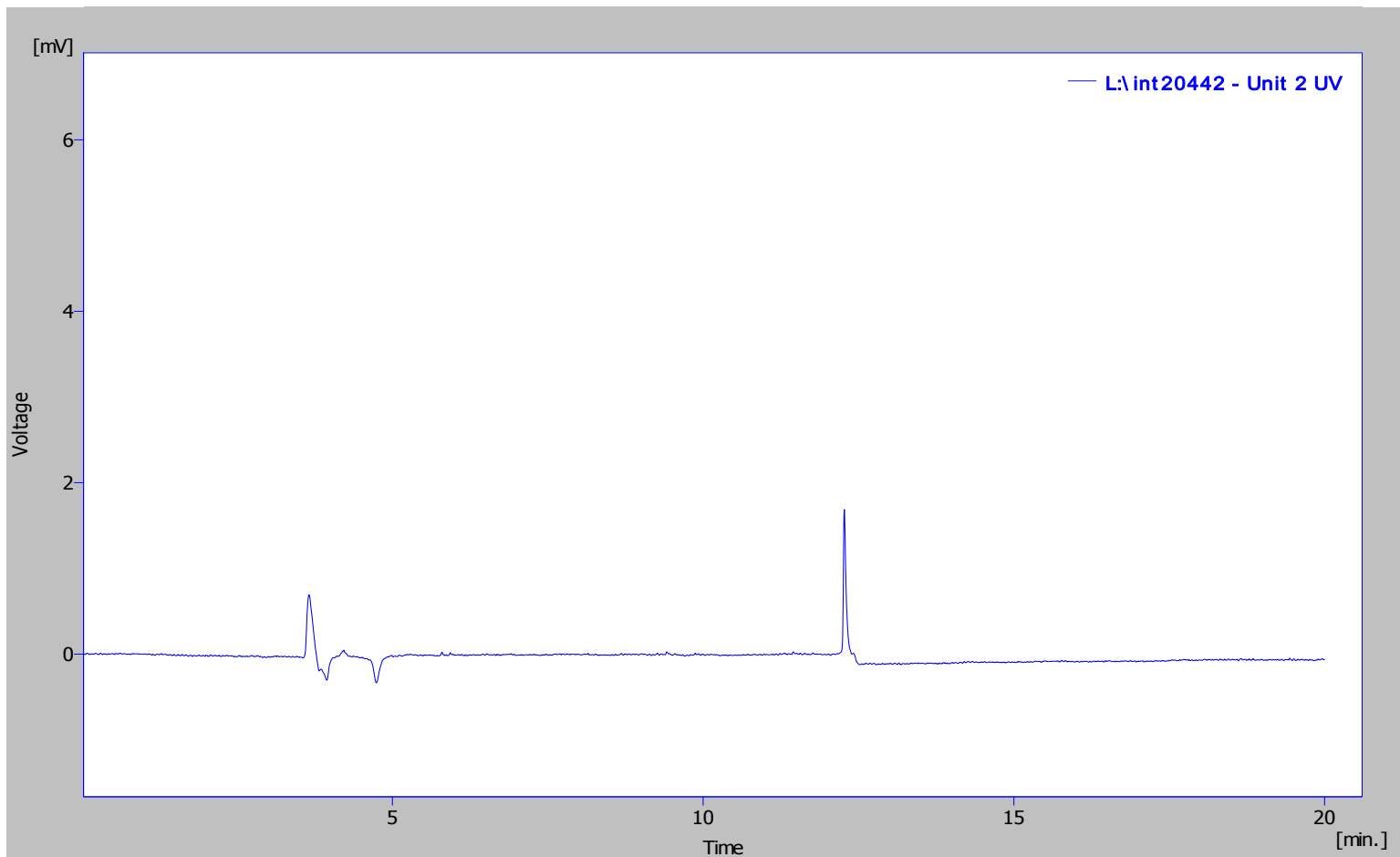
Result Table (Uncal - L:\int20445 - Unit 2 UV)

	Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
1		3.203	0.03	1.069	0.209	0.036	10570.881
2		4.363	99.88	4038.015	572.349	99.858	9270.200
3		4.770	0.03	1.145	0.219	0.038	11804.991
4		5.040	0.00	0.184	0.036	0.006	31663.094
5		6.143	0.07	2.641	0.351	0.061	14519.626
		Total	100.00	4043.054	573.164	100.000	

MC-1145
Cytosine β -D-arabinofuranoside 5'-monophosphate, ditriethylammonium
salt, [2- 14 C]-
Lot 548-030-0587-A-20090309-JH

Chromatogram Info:

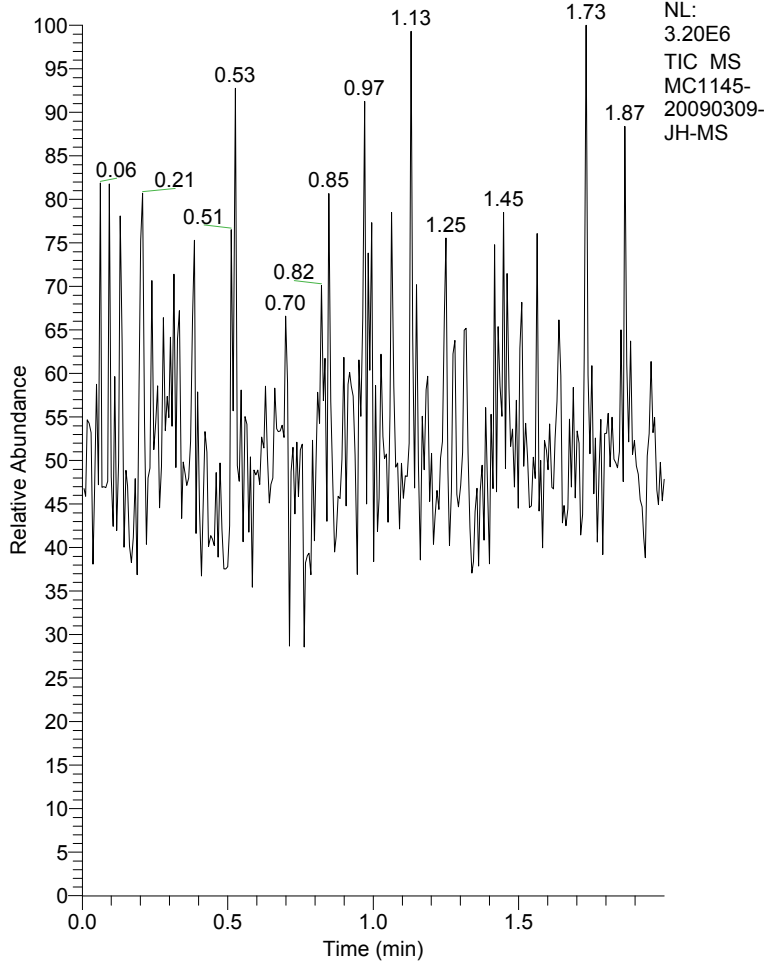
File Name	: L:\int20442	File Created	: 11/5/2013 11:42:39 AM
Origin	: Acquired, Acquisition started 3/18/2010 10:01:10 AM	Acquired Date	: 3/18/2010 10:21:09 AM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of blank injection	Modified	: 11/5/2013 12:11 PM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: UV 270nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int20442 - Unit 2 UV)

Compound Name	Reten. Time [min]	Area [%]	Area [mV.s]	Height [mV]	Height [%]	Efficiency [th.pl]
No peak to report						

RT: 0.00 - 2.00



NL:
3.20E6
TIC MS
MC1145-
20090309-
JH-MS

MC1145-20090309-JH-MS#1-316 RT: 0.01-2.00

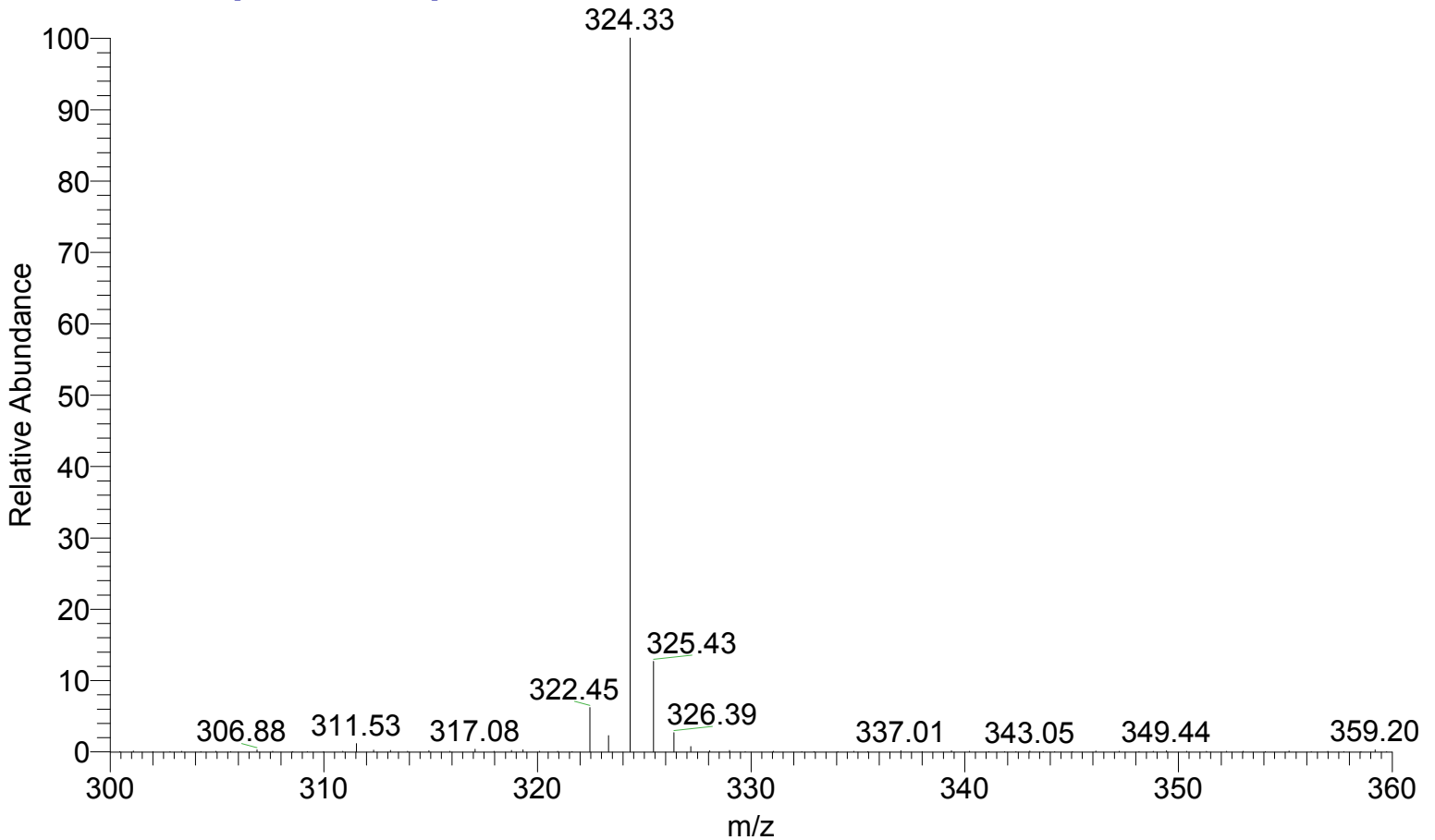
T: - c NSI Full ms [300.00-360.00]

m/z= 319.42-334.60

m/z	Intensity	Relative
320.95	540.0	0.04
321.62	48.1	0.00
322.45	79280.6	6.18
323.32	28794.4	2.24
324.33	1282857.2	100.00
325.43	162417.4	12.66
326.39	34164.2	2.66
327.17	9140.0	0.71
328.06	1824.5	0.14
328.99	2420.4	0.19
329.72	309.4	0.02
331.04	733.8	0.06
332.37	291.9	0.02
332.93	459.6	0.04
334.06	109.2	0.01

MC1145-20090309-JH-MS #1-316 RT: 0.01-2.00 AV: 316 NL: 1.28E6

T: - c NSI Full ms [300.00-360.00]



MC1145 1H NMR in D2O
 Batch 20090309-JH



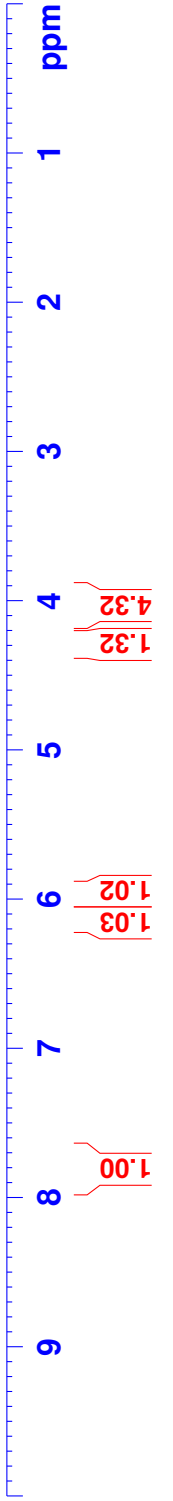
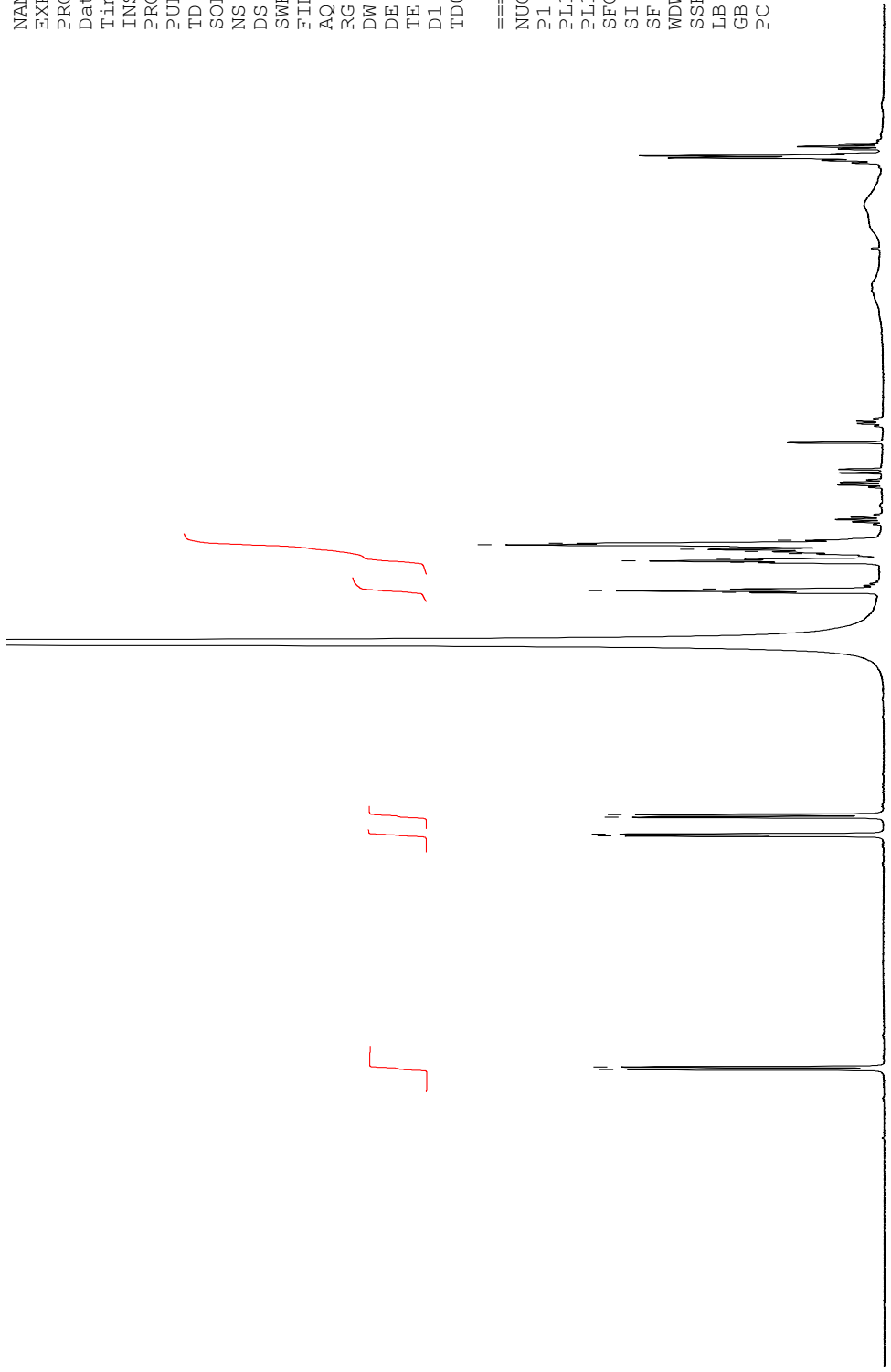
4.318
4.306
4.293
4.097
4.087
4.075
4.033
4.018
4.002
3.968
3.958
3.936

6.103
6.090
5.966
5.947

7.816
7.797

NAME MC1145
 EXPNO 1
 PROCNO 1
 Date_ 20091201
 Time 16.26
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT D2O
 NS 423
 DS 0
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 181
 DW 60.400 usec
 DE 6.50 usec
 TE 294.7 K
 D1 2.00000000 sec
 TD0 1

==== CHANNEL f1 =====
 NUC1 1H
 P1 14.50 usec
 PL1 -0.70 dB
 PL1W 10.03411102 W
 SF01 400.1324710 MHz
 SI 32768
 SF 400.1300066 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00



1.00
1.03
1.02
1.32
4.32