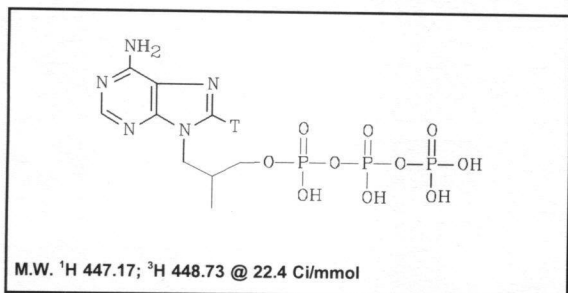




Product Data Sheet

MT-1893

Tenofovir Diphosphate, [adenine-8-³H]-



Lot #: 167-191-0224-A-20050413-TN

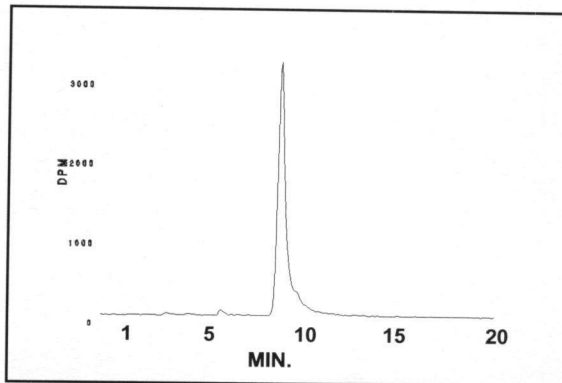
Specific Activity: 22.4 Ci/mmol

Concentration: 1.0 mCi/ml; 20.03 μ g/ml

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

Date of Analysis: December 23, 2009

Radiochemical Purity: 96.6%



HPLC ANALYSIS LOT 167-191-0224-A-20050413-TN
File Name: int20345 Date and Time: 12/23/2009 10:46:35
Unit 2 Radio

Peak #	Area %	Time	Area
1	0.68	3.39670	69.44153
2	0.53	4.51330	53.89079
3	1.70	6.14670	172.84139
4	96.69	9.15330	9823.24010
5	0.39	10.04670	39.85211
Totals	100.00		10159.26592

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.

MT-1893

Tenofovir diphosphate, [adenine-8-³H]-

Lot 167-191-0224-A-20050413-TN

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

Concentrations and volumes:

Standard solution concentration was 6.0 mg/ml.

³H Material concentration was 0.2 mCi/mL.

Volume of standard alone injection was 1.0 µL.

Volume of ³H Material alone injection was 1.0 µL.

Co-injection solution consisted of 1.0 µL ³H Material + 1.0 µL standard.

Volume of co-injection was 2.0 µL.

Volume of blank injection was 1.0 µL.

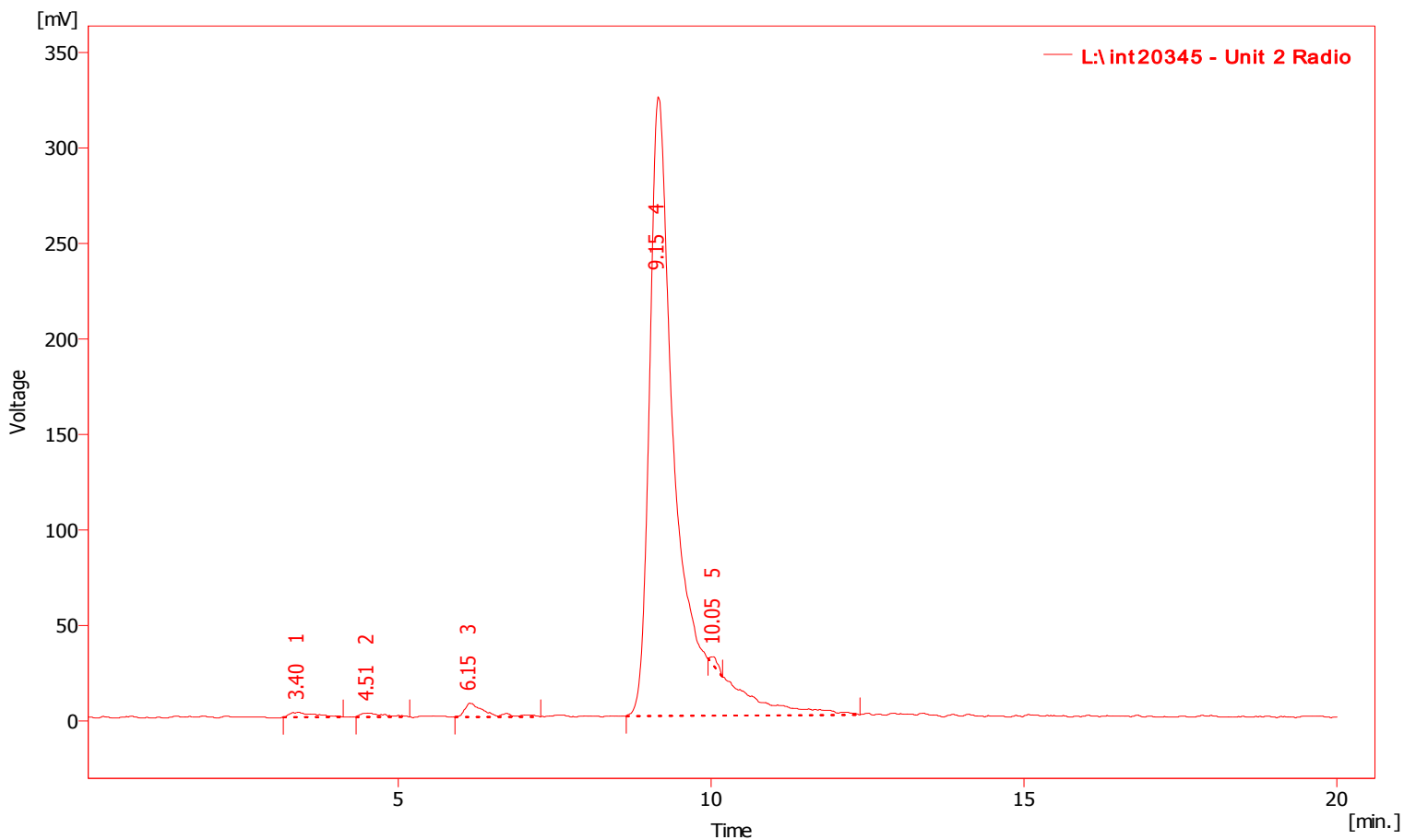
B) Mass spectrometry – Negative mode

C) NMR

MT-1893
Tenofovir diphosphate, [adenine-8-3H]-
Lot 167-191-0224-A-20050413-TN

Chromatogram Info:

File Name	: L:\int20345	File Created	: 4/7/2014 2:06:23 PM
Origin	: Acquired, Acquisition started 12/23/2009 10:26:36 AM	Acquired Date	: 12/23/2009 10:46:35 AM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: Radiochemical trace of 3H material alone	Modified	: 4/7/2014 2:19 PM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



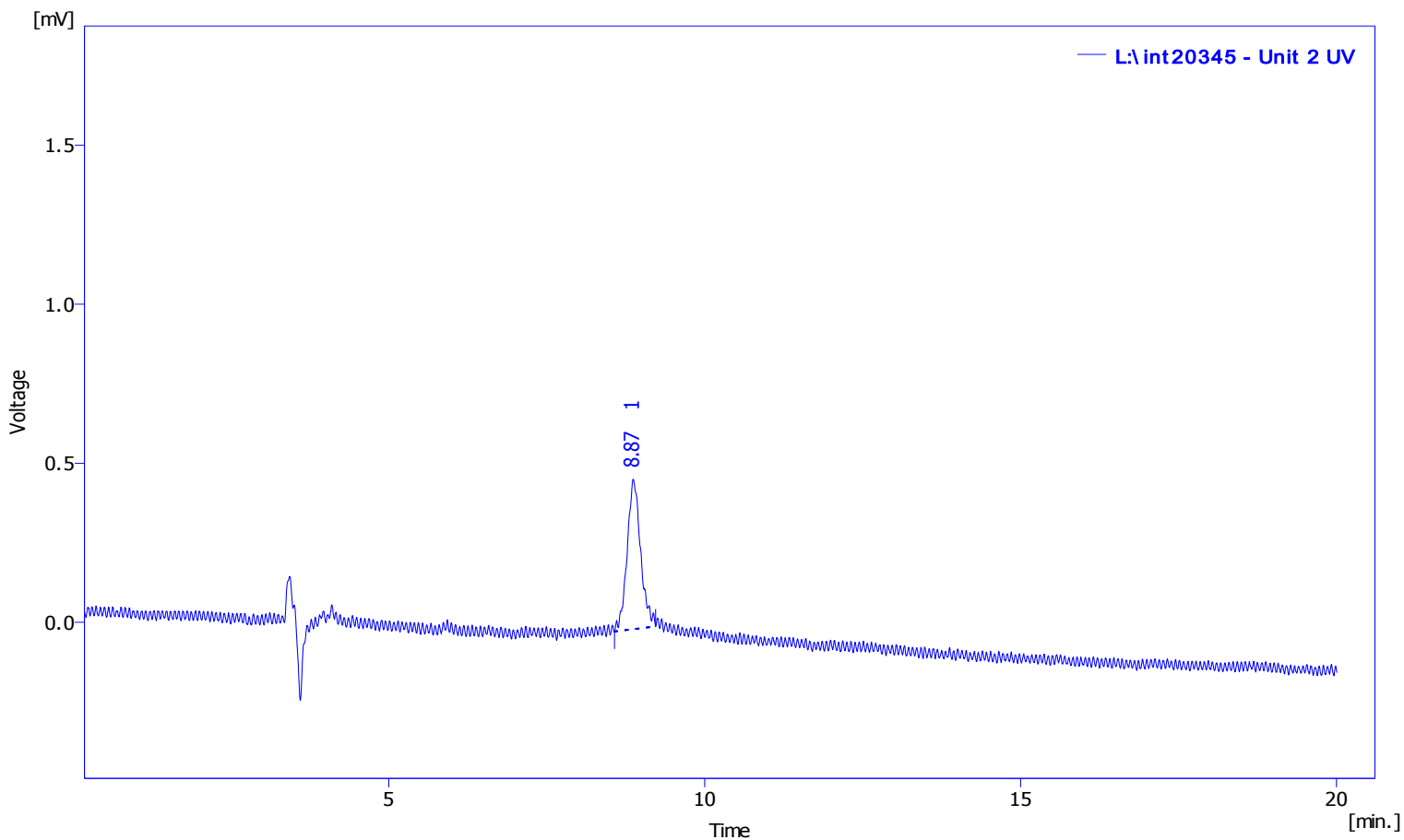
Result Table (Uncal - L:\int20345 - Unit 2 Radio)

	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		3.40	69.442	2.59	0.68	0.76	325.20	6504.06	2.20		
2		4.51	53.891	2.06	0.53	0.61	1149.45	22989.07	2.23		1.7
3		6.15	172.841	7.32	1.70	2.15	2087.30	41745.95	3.01		3.1
4		9.15	9823.240	324.20	96.69	95.07	3516.07	70321.45	3.66		5.2
5		10.05	39.852	4.82	0.39	1.41	31454.03	629080.57	1.22		2.1
		Total	10159.266	341.00	100.00	100.00					

MT-1893
Tenofovir diphosphate, [adenine-8-3H]-
Lot 167-191-0224-A-20050413-TN

Chromatogram Info:

File Name	: L:\int20345	File Created	: 4/7/2014 2:06:23 PM
Origin	: Acquired, Acquisition started 12/23/2009 10:26:36 AM	Acquired Date	: 12/23/2009 10:46:35 AM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of 3H material alone	Modified	: 4/7/2014 2:18 PM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: UV 260nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



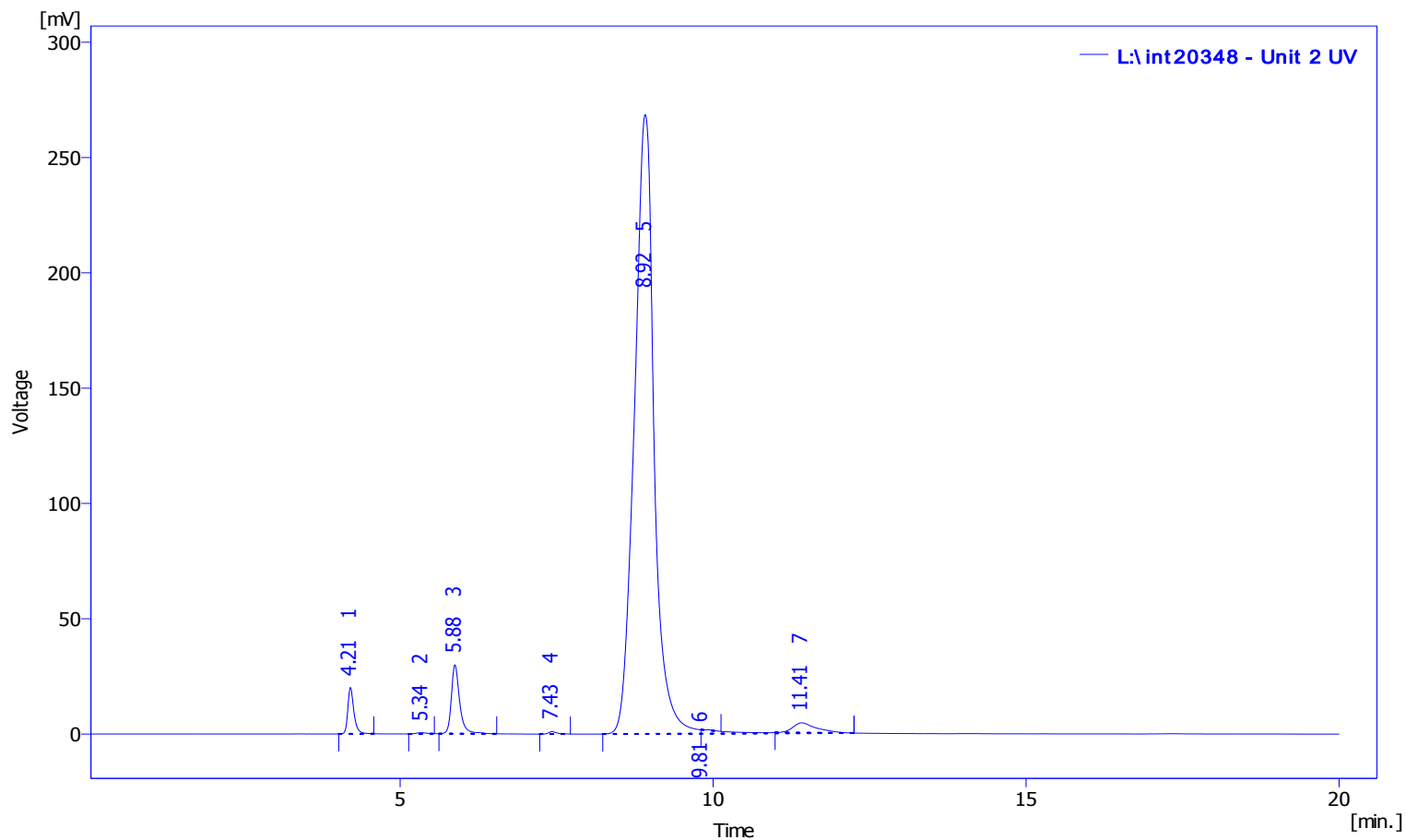
Result Table (Uncal - L:\int20345 - Unit 2 UV)

	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 [-]
1		8.87	6.976	0.47	100.00	100.00	8483.63	169672.59	1.12		
		Total	6.976	0.47	100.00	100.00					

MT-1893
Tenofovir diphosphate, [adenine-8-3H]-
Lot 167-191-0224-A-20050413-TN

Chromatogram Info:

File Name	: L:\int20348	File Created	: 4/7/2014 2:06:23 PM
Origin	: Acquired, Acquisition started 12/23/2009 11:44:16 AM	Acquired Date	: 12/23/2009 12:04:15 PM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of standard material alone	Modified	: 4/7/2014 2:20 PM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: UV 260nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



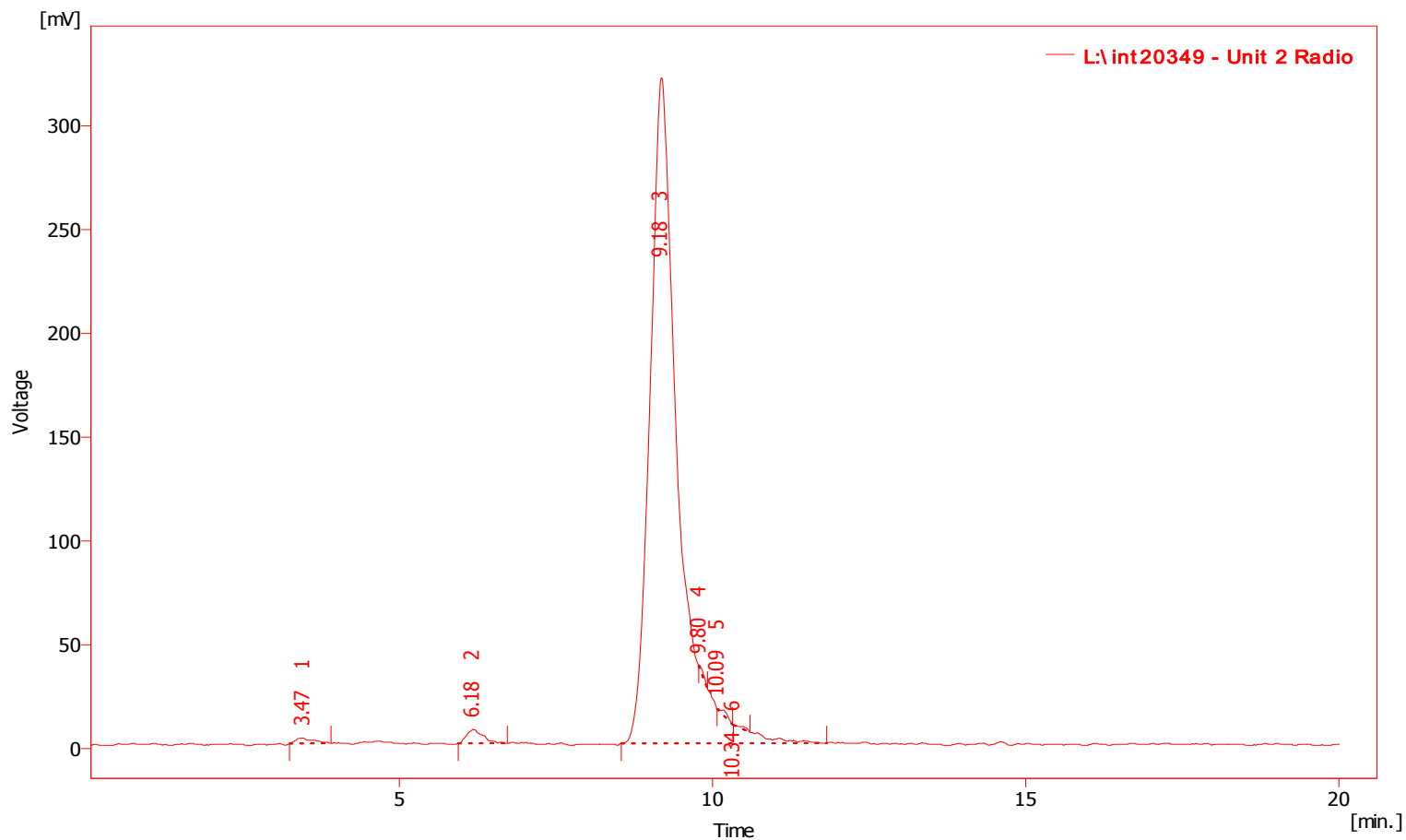
Result Table (Uncal - L:\int20348 - Unit 2 UV)

	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 [-]
1		4.21	135.646	20.12	2.10	6.20	9803.61	196072.17	1.34		
2		5.34	5.428	0.49	0.08	0.15	4705.99	94119.89	1.06		4.7
3		5.88	275.679	29.86	4.28	9.20	10243.46	204869.20	1.30		2.0
4		7.43	9.717	1.08	0.15	0.33	18080.52	361610.41	1.49		6.9
5		8.92	5905.006	268.51	91.59	82.78	4392.48	87849.67	2.97		3.9
6		9.81	2.469	0.01	0.04	0.00	3000995.84	60019916.80	24.00		3.2
7		11.41	113.596	4.29	1.76	1.32	4997.67	99953.40	1.51		4.8
		Total	6447.542	324.35	100.00	100.00					

MT-1893
Tenofovir diphosphate, [adenine-8-3H]-
Lot 167-191-0224-A-20050413-TN

Chromatogram Info:

File Name	: L:\int20349	File Created	: 4/7/2014 2:06:24 PM
Origin	: Acquired, Acquisition started 12/23/2009 12:05:56 PM	Acquired Date	: 12/23/2009 12:25:54 PM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: Radiochemical trace of 3H material co-injected with standard	Modified	: 4/7/2014 2:22 PM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



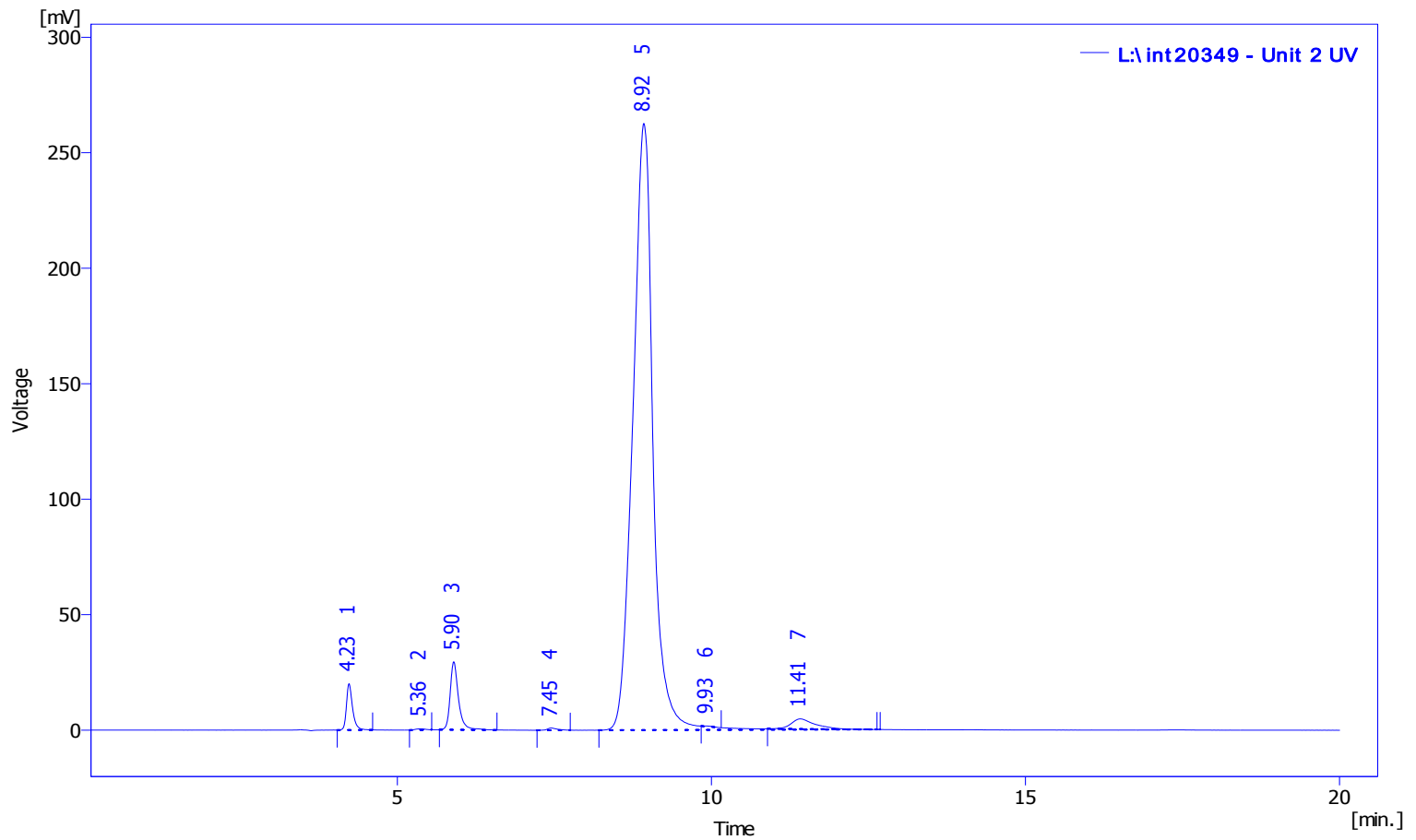
Result Table (Uncal - L:\int20349 - Unit 2 Radio)

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	3.47	51.340	2.58	0.51	0.78	556.13	11122.66	1.45		
2	6.18	122.766	6.86	1.21	2.06	2249.85	44997.00	1.38		4.9
3	9.18	9942.463	320.63	97.86	96.52	2734.70	54693.99	2.55		4.9
4	9.80	12.938	1.71	0.13	0.52	478855.44	9577108.80	3.50		1.6
5	10.09	19.673	0.41	0.19	0.12	626271.42	12525428.40	12.17		5.3
6	10.34	11.039	0.00	0.11	0.00	13318438.39	266368767.70	40.00		8.0
Total		10160.219	332.19	100.00	100.00					

MT-1893
Tenofovir diphosphate, [adenine-8-3H]-
Lot 167-191-0224-A-20050413-TN

Chromatogram Info:

File Name	: L:\int20349	File Created	: 4/7/2014 2:06:24 PM
Origin	: Acquired, Acquisition started 12/23/2009 12:05:56 PM	Acquired Date	: 12/23/2009 12:25:54 PM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of 3H material co-injected with standard	Modified	: 4/7/2014 2:21 PM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: UV 260nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



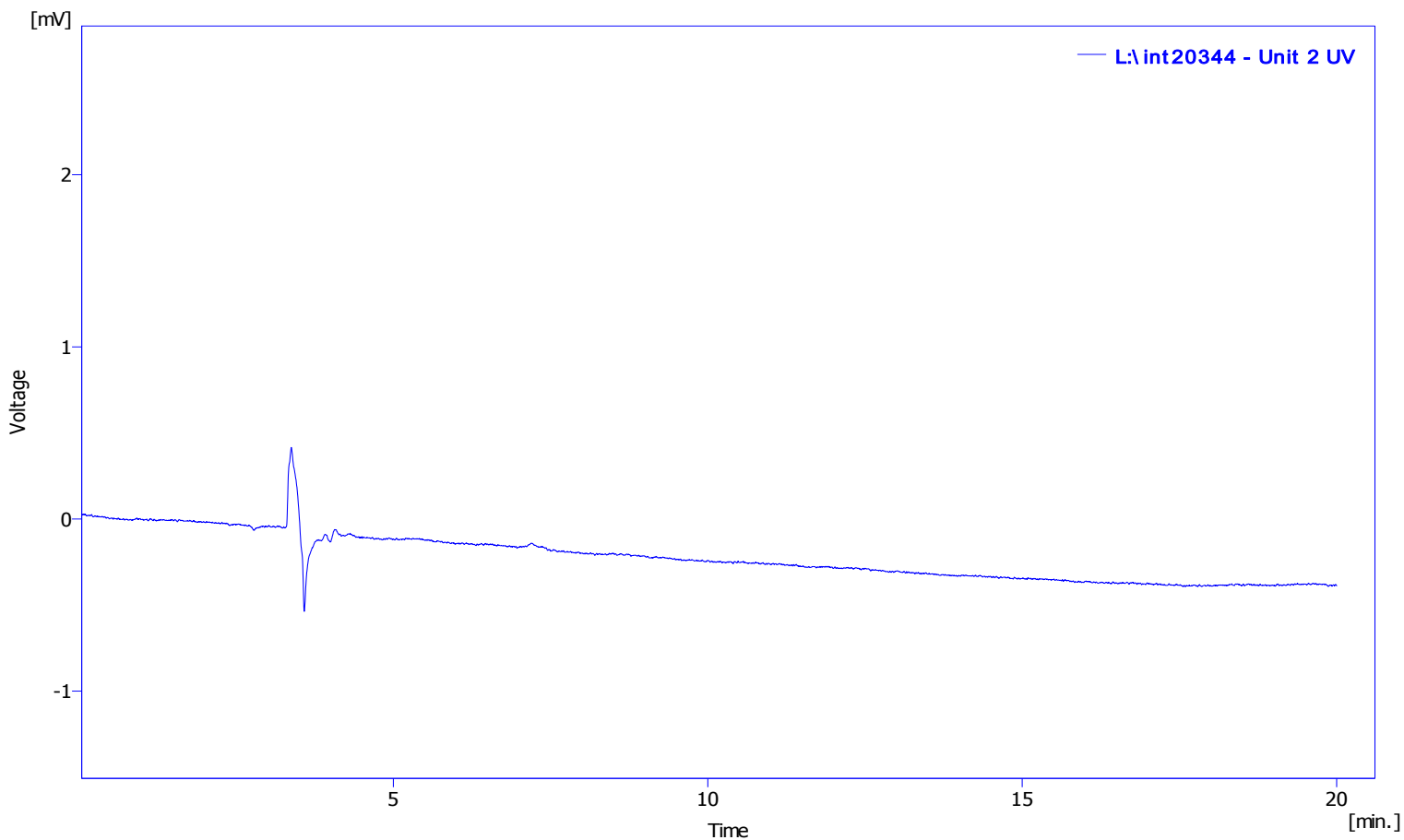
Result Table (Uncal - L:\int20349 - Unit 2 UV)

	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		4.23	135.867	20.04	2.12	6.30	9912.67	198253.33	1.36		
2		5.36	4.988	0.47	0.08	0.15	5105.87	102117.48	1.02		4.8
3		5.90	271.605	29.46	4.25	9.26	10835.41	216708.25	1.32		2.0
4		7.45	10.027	0.95	0.16	0.30	12527.64	250552.71	1.44		6.3
5		8.92	5855.171	262.67	91.52	82.55	4307.88	86157.69	3.14		3.6
6		9.93	2.418	0.23	0.04	0.07	26571.88	531437.55	1.65		2.6
7		11.41	117.390	4.37	1.83	1.37	5083.55	101670.90	1.48		3.4
		Total	6397.465	318.20	100.00	100.00					

MT-1893
Tenofovir diphosphate, [adenine-8-3H]-
Lot 167-191-0224-A-20050413-TN

Chromatogram Info:

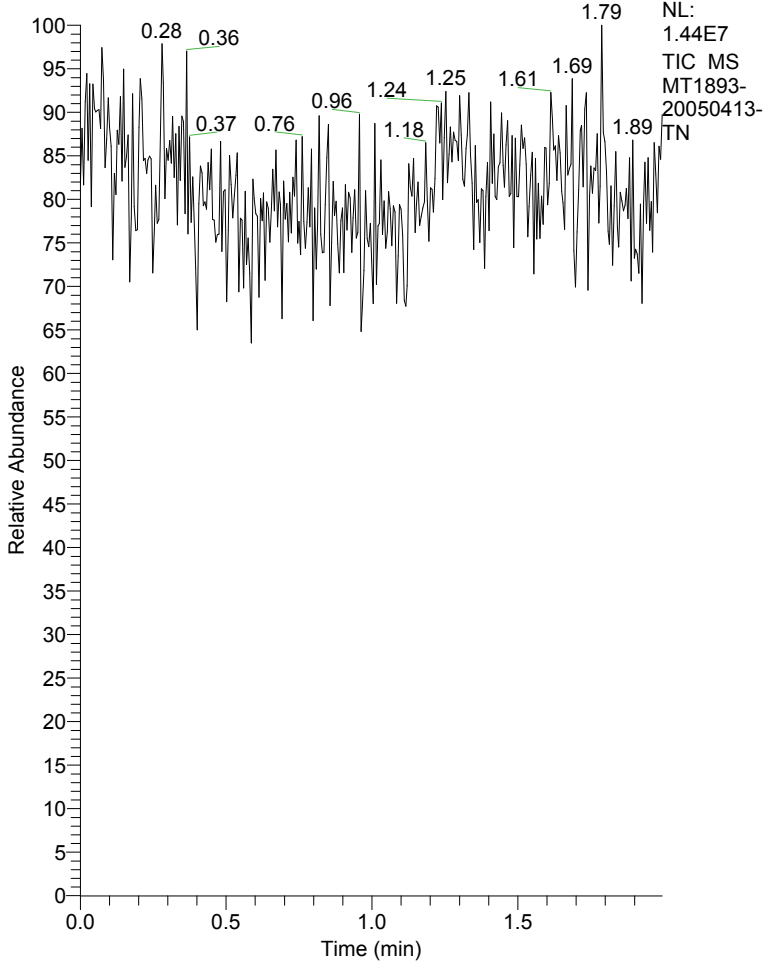
File Name	: L:\int20344	File Created	: 4/7/2014 2:06:23 PM
Origin	: Acquired, Acquisition started 12/23/2009 10:00:56 AM	Acquired Date	: 12/23/2009 10:20:55 AM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of blank injection	Modified	: 4/7/2014 2:23 PM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: UV 260nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int20344 - Unit 2 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



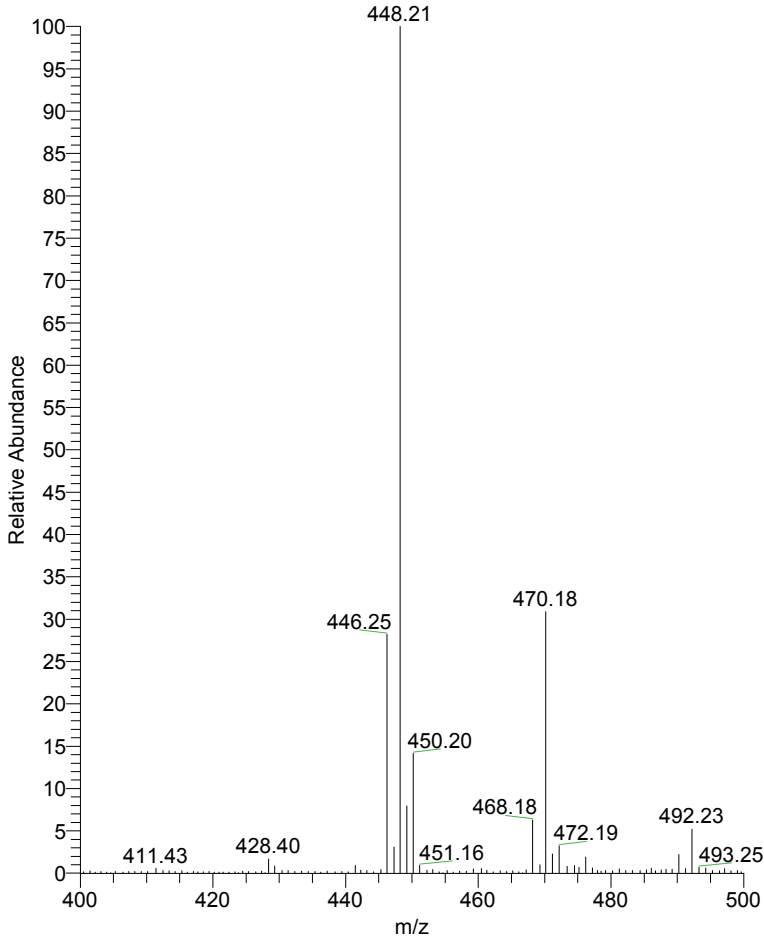
MT1893-20050413-TN#1-378 RT: 0.00-1.99

T: - c NSI Full ms [400.00-500.00]

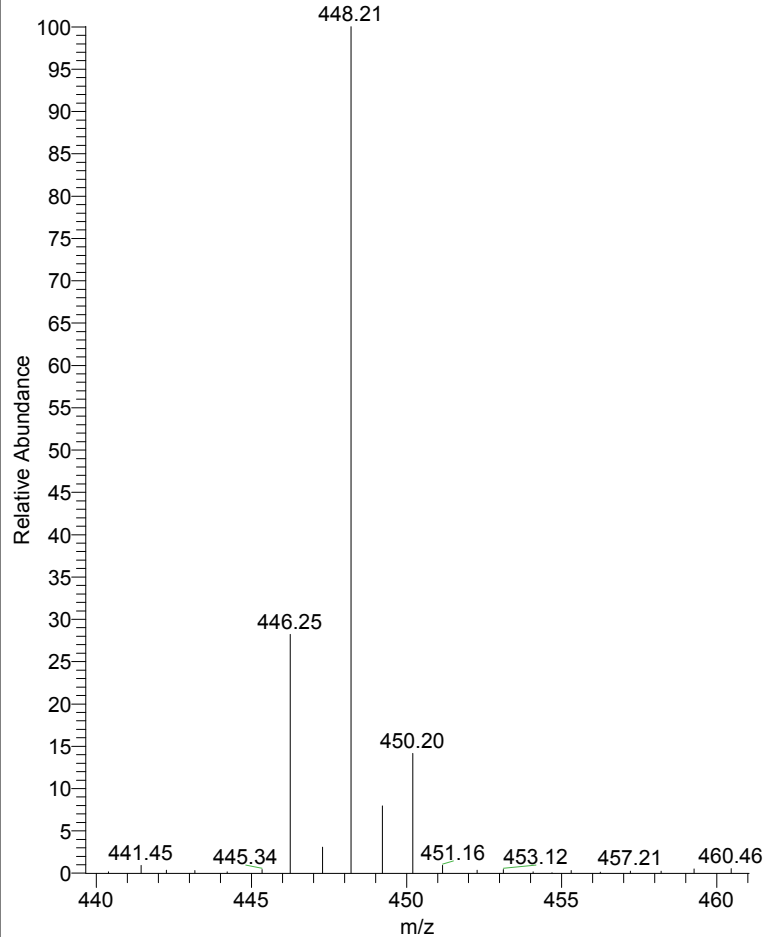
m/z = 443.05-455.28

m/z	Intensity	Relative
443.18	14332.9	0.29
444.22	6315.6	0.13
445.34	19694.5	0.39
446.25	1408508.6	28.17
447.29	151454.9	3.03
448.21	4999167.7	100.00
449.22	396358.5	7.93
450.20	705074.0	14.10
451.16	43571.1	0.87
452.27	15850.8	0.32
453.12	19376.3	0.39
454.08	7478.5	0.15
454.69	265.8	0.01

MT1893-20050413-TN #1-378 RT: 0.00-1.99 AV: 378 NL: 5.00E6
T: - c NSI Full ms [400.00-500.00]



MT1893-20050413-TN #1-378 RT: 0.00-1.99 AV: 378 NL: 5.00E6
T: - c NSI Full ms [400.00-500.00]



MT1893 3H NMR in MeOD
Batch 20050413-TN



8.485

NAME MT1893
EXPNO 1
PROCNO 1
Date_ 20091120
Time_ 16.06
INSTRUM spect
PROBHD 5 mm DUX 3H-1H
PULPROG zg
TD 16384
SOLVENT MeOD
NS 5000
DS 2
SWH 6172.839 Hz
FIDRES 0.376760 Hz
AQ 1.3271540 sec
RG 46341
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
TD0 1

==== CHANNEL f1 =====
NUC1 3H
P1 10.00 usec
PL1 2.00 dB
SF01 320.1321857 MHz
SI 32768
SF 320.1305850 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

