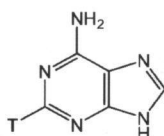




Product Data Sheet

MT-613

Adenine, [2-³H(N)]-



M.W. ¹H 135.13; ³H 136.67 @ 22.1 Ci/mmol

Lot#: 167-159-0221-A-20081029-JA

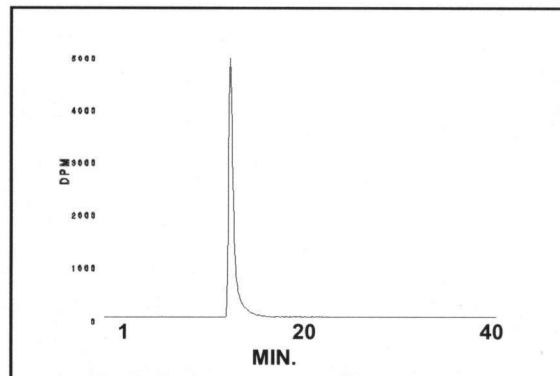
Specific Activity: 22.1 Ci/mmol

Concentration: 1.0 mCi/ml; 6.18 µg/ml

Packaged in: Ethanol : water (2 : 98) solution

Date of Analysis: September 11, 2009

Radiochemical Purity: 99.8%



HPLC ANALYSIS LOT 167-159-0221-A-20081029-JA
File Name: int42122 Date and Time: 9/11/2009 10:33:40 A
Unit 4 Radio

Peak #	Area %	Time	Area
1	99.88	12.89330	18255.88067
2	0.12	15.86000	21.07845
Totals	100.00		18276.95912

Stability and Storage Recommendation: The rate of decomposition is approximately 1% / month for the first six months after purification when stored 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.

MT-613

Adenine, [2-³H(N)]-

Lot 167-159-0221-A-20081029-JA

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

Concentrations and volumes:

Standard solution concentration was 0.5 mg/mL.

Adenine, [2-³H(N)]- concentration was 1.0 mCi/mL.

Volume of standard alone injection was 2.0 µL.

Volume of **Adenine, [2-³H(N)]-** alone injection was 0.5 µL.

Co-injection solution consisted of 0.5 µL **Adenine, [2-³H(N)]-** + 2.0 µL standard.

Volume of co-injection was 2.5 µL.

Volume of blank injection was 0.5 µL.

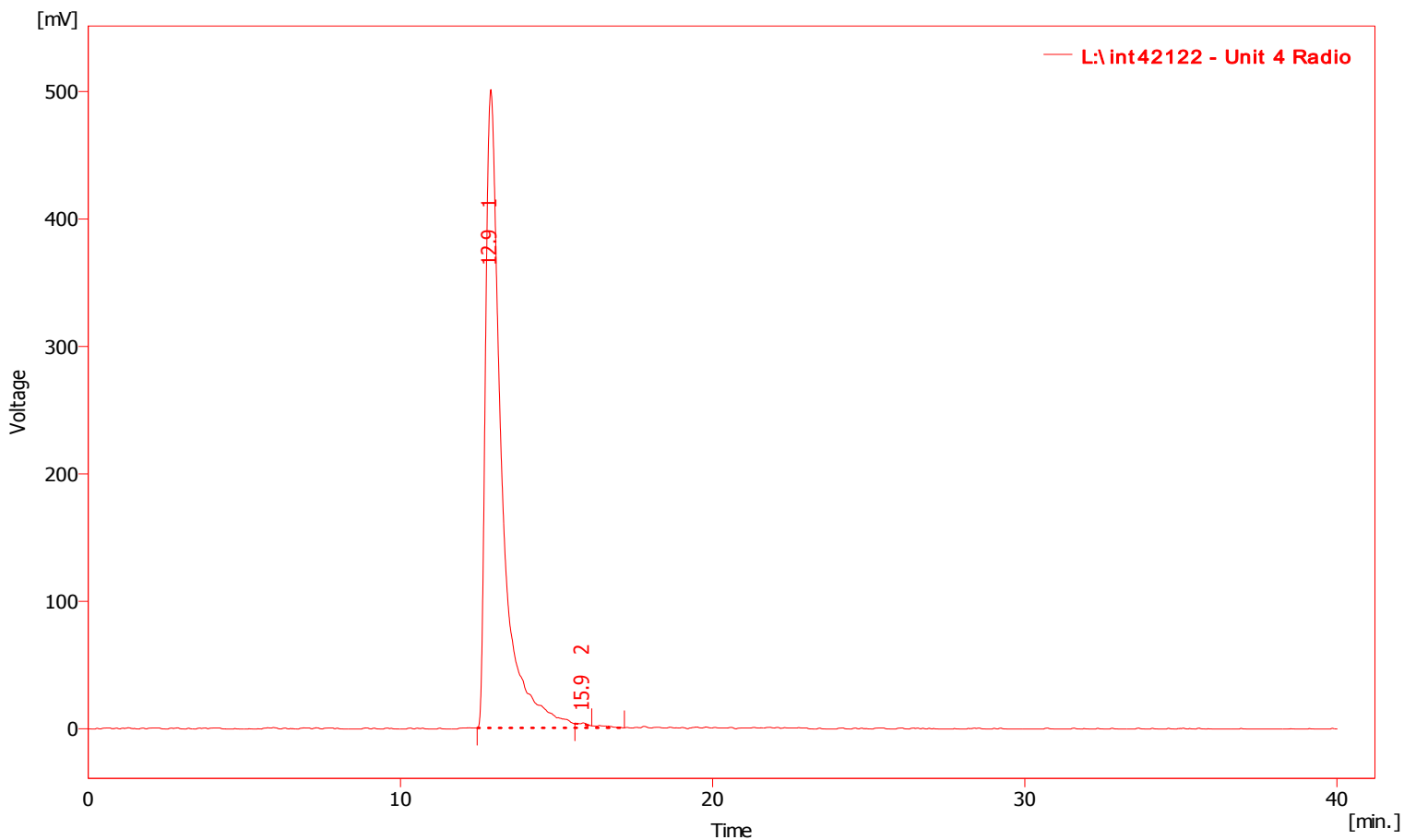
B) Mass spectrometry – Positive mode

C) NMR

MT-613
Adenine, [2-3H(N)]-
Lot 167-159-0221-A-20081029-JA

Chromatogram Info:

File Name	: L:\int42122	File Created	: 2/25/2014 1:56:56 PM
Origin	: Acquired, Acquisition started 9/11/2009 9:53:41 AM	Acquired Date	: 9/11/2009 10:33:40 AM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material alone	Modified	: 2/25/2014 2:14 PM
Created	: 6/12/2008 10:30 AM	Detection	: Radiochemical
Column	:	Temperature	:
Mobile Phase	:	Pressure	:
Flow Rate	:	Note	:



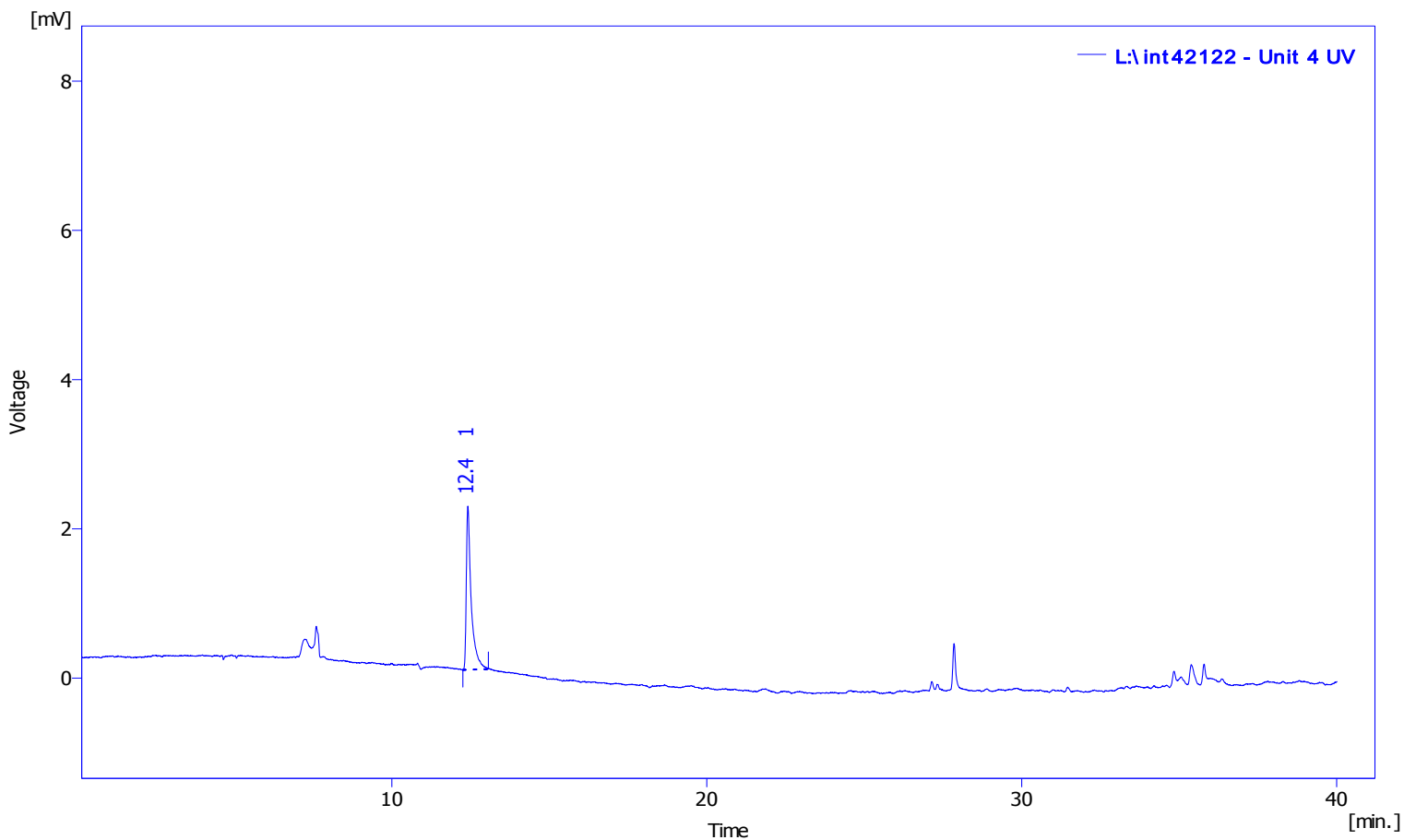
Result Table (Uncal - L:\int42122 - Unit 4 Radio)

	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		12.89	18255.881	500.94	99.88	99.70	3997.22	79944.34	5.40		
2		15.86	21.078	1.53	0.12	0.30	10365.09	207301.89	0.93		4.1
		Total	18276.959	502.47	100.00	100.00					

MT-613
Adenine, [2-3H(N)]-
Lot 167-159-0221-A-20081029-JA

Chromatogram Info:

File Name	: L:\int42122	File Created	: 2/25/2014 1:56:56 PM
Origin	: Acquired, Acquisition started 9/11/2009 9:53:41 AM	Acquired Date	: 9/11/2009 10:33:40 AM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of 3H material alone	Modified	: 2/25/2014 2:14 PM
Created	: 6/12/2008 10:30 AM	Detection	: UV 259nm
Column	:	Temperature	:
Mobile Phase	:	Pressure	:
Flow Rate	:	Note	:



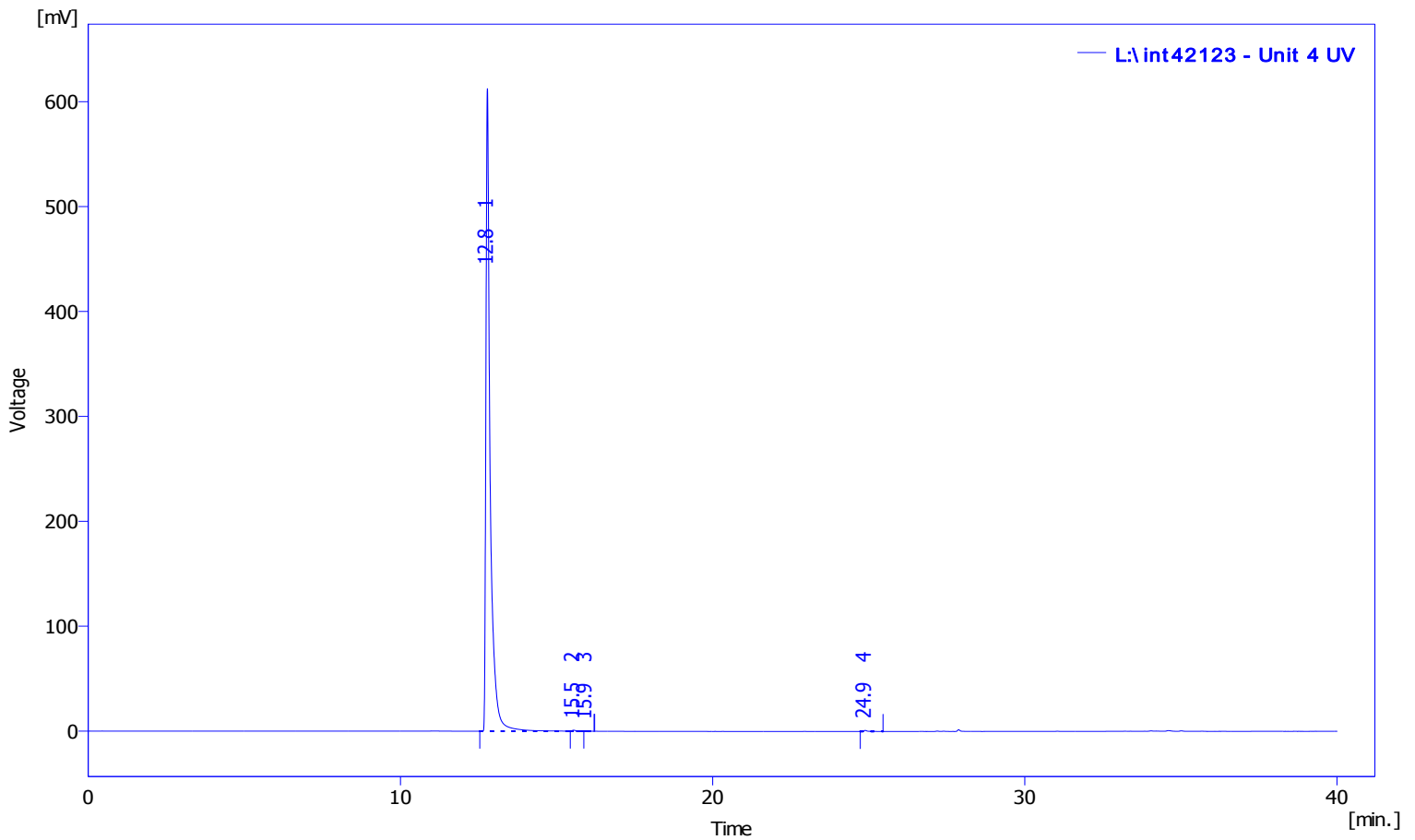
Result Table (Uncal - L:\int42122 - Unit 4 UV)

	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 [-]
1		12.41	23.827	2.19	100.00	100.00	41552.03	831040.51	2.35		
		Total	23.827	2.19	100.00	100.00					

MT-613
Adenine, [2-3H(N)]-
Lot 167-159-0221-A-20081029-JA

Chromatogram Info:

File Name	: L:\int42123	File Created	: 2/25/2014 1:56:56 PM
Origin	: Acquired, Acquisition started 9/11/2009 11:20:49 AM	Acquired Date	: 9/11/2009 12:00:47 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of standard alone	Modified	: 2/25/2014 2:02 PM
Created	: 6/12/2008 10:30 AM	Detection	: UV 259nm
Column	:	Temperature	:
Mobile Phase	:	Pressure	:
Flow Rate	:	Note	:



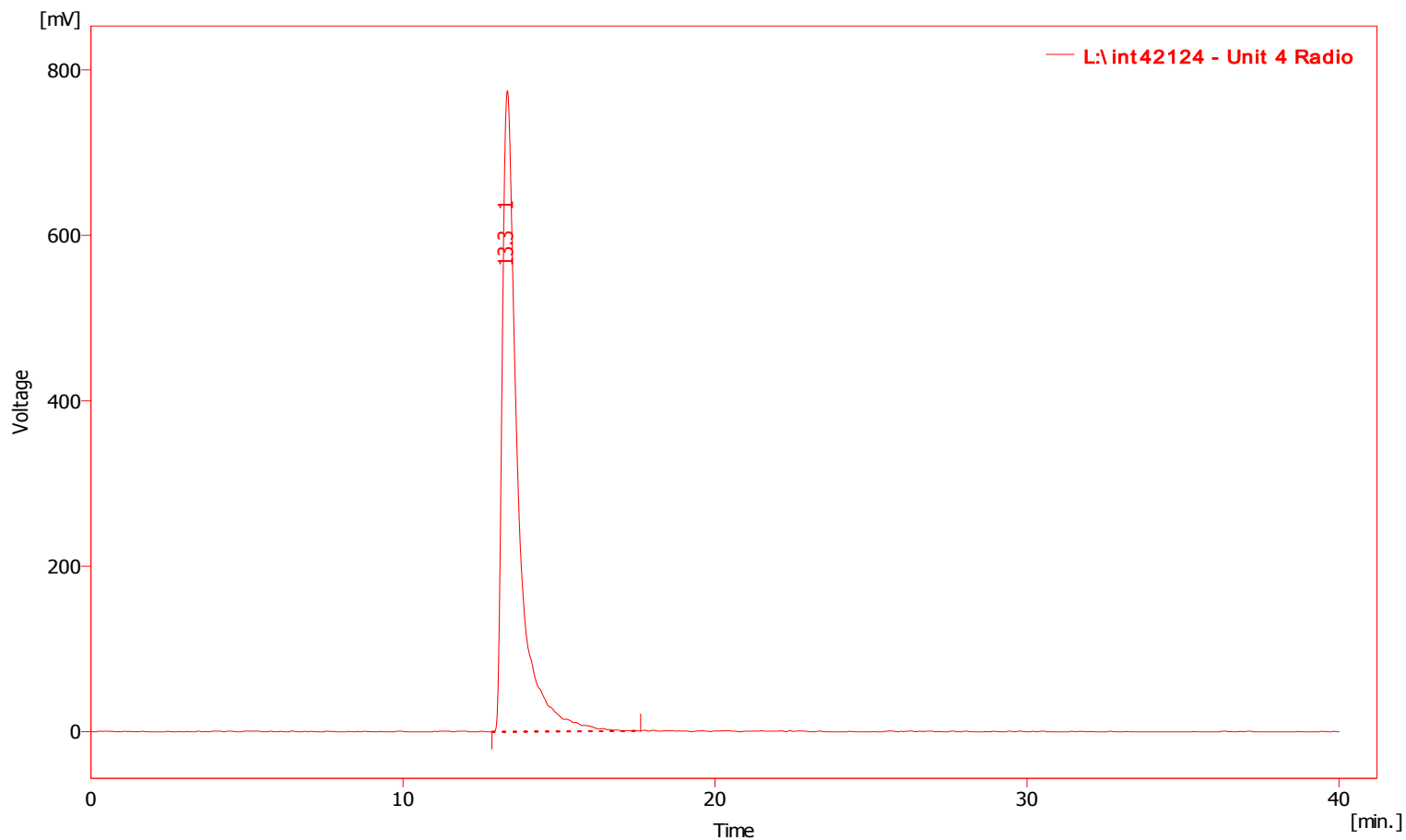
Result Table (Uncal - L:\int42123 - Unit 4 UV)

	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 [-]
1		12.78	5846.237	612.46	99.70	99.66	59516.45	1190329.09	7.90		
2		15.55	8.416	0.90	0.14	0.15	83456.40	1669128.03	2.38		13.0
3		15.94	1.431	0.19	0.02	0.03	131772.22	2635444.41	2.37		2.0
4		24.89	7.978	1.00	0.14	0.16	343117.78	6862355.65	2.09		51.9
		Total	5864.062	614.56	100.00	100.00					

MT-613
Adenine, [2-3H(N)]-
Lot 167-159-0221-A-20081029-JA

Chromatogram Info:

File Name	: L:\int42124	File Created	: 2/25/2014 1:56:55 PM
Origin	: Acquired, Acquisition started 9/11/2009 12:24:27 PM	Acquired Date	: 9/11/2009 1:04:26 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material co-injected with standard	Modified	: 2/25/2014 2:18 PM
Created	: 6/12/2008 10:30 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



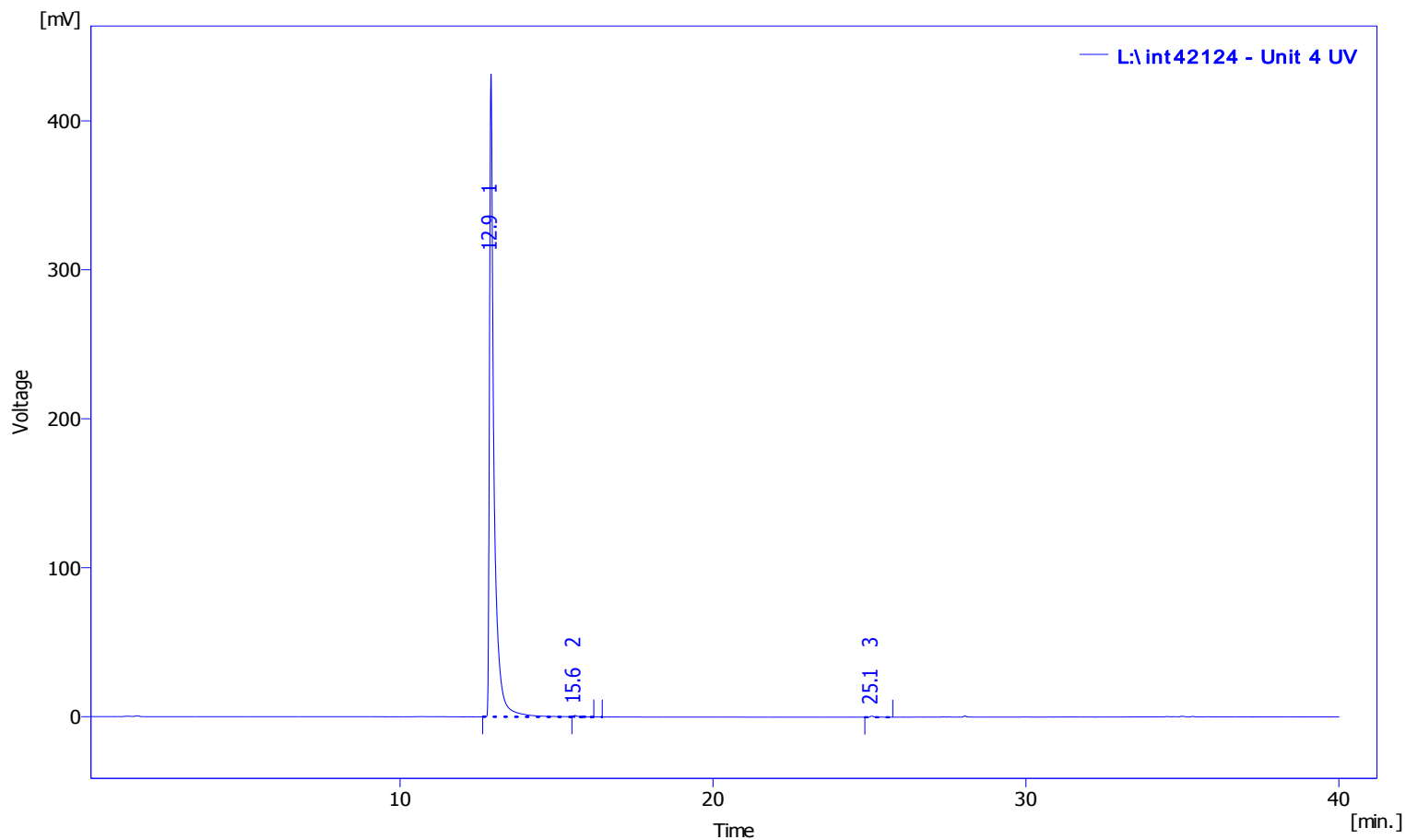
Result Table (Uncal - L:\int42124 - Unit 4 Radio)

	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		13.35	26970.400	775.03	100.00	100.00	4596.93	91938.69	2.43		
		Total	26970.400	775.03	100.00	100.00					

MT-613
Adenine, [2-3H(N)]-
Lot 167-159-0221-A-20081029-JA

Chromatogram Info:

File Name	: L:\int42124	File Created	: 2/25/2014 1:56:55 PM
Origin	: Acquired, Acquisition started 9/11/2009 12:24:27 PM	Acquired Date	: 9/11/2009 1:04:26 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of 3H material co-injected with standard	Modified	: 2/25/2014 2:16 PM
Created	: 6/12/2008 10:30 AM		
Column	:	Detection	: UV 259nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



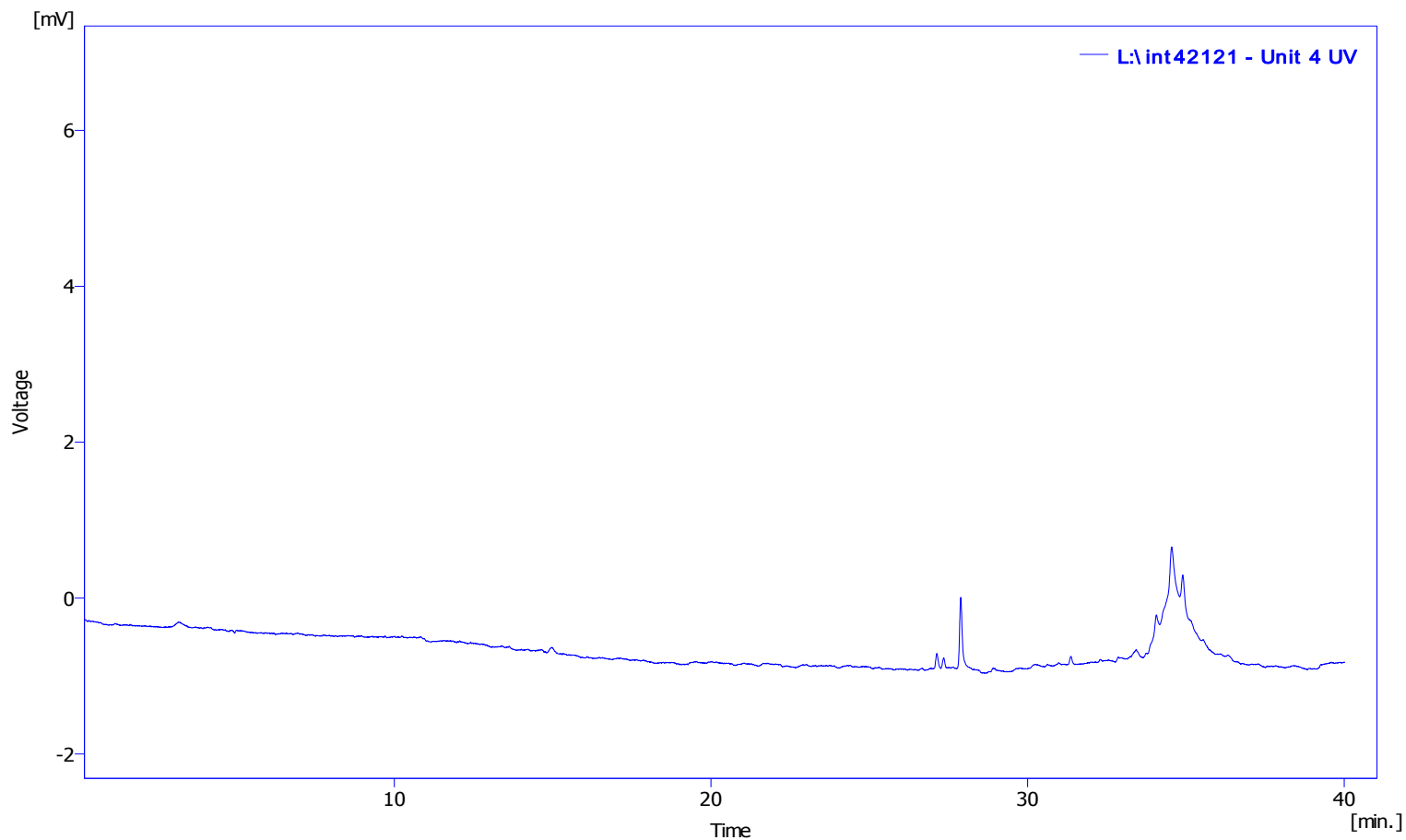
Result Table (Uncal - L:\int42124 - Unit 4 UV)

	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 [-]
1		12.91	4367.542	431.53	99.66	99.62	57519.26	1150385.14	7.62		
2		15.58	8.176	0.89	0.19	0.21	125993.93	2519878.51	3.20		13.7
3		25.08	6.617	0.74	0.15	0.17	271227.71	5424554.16	2.03		51.7
		Total	4382.335	433.16	100.00	100.00					

MT-613
Adenine, [2-3H(N)]-
Lot 167-159-0221-A-20081029-JA

Chromatogram Info:

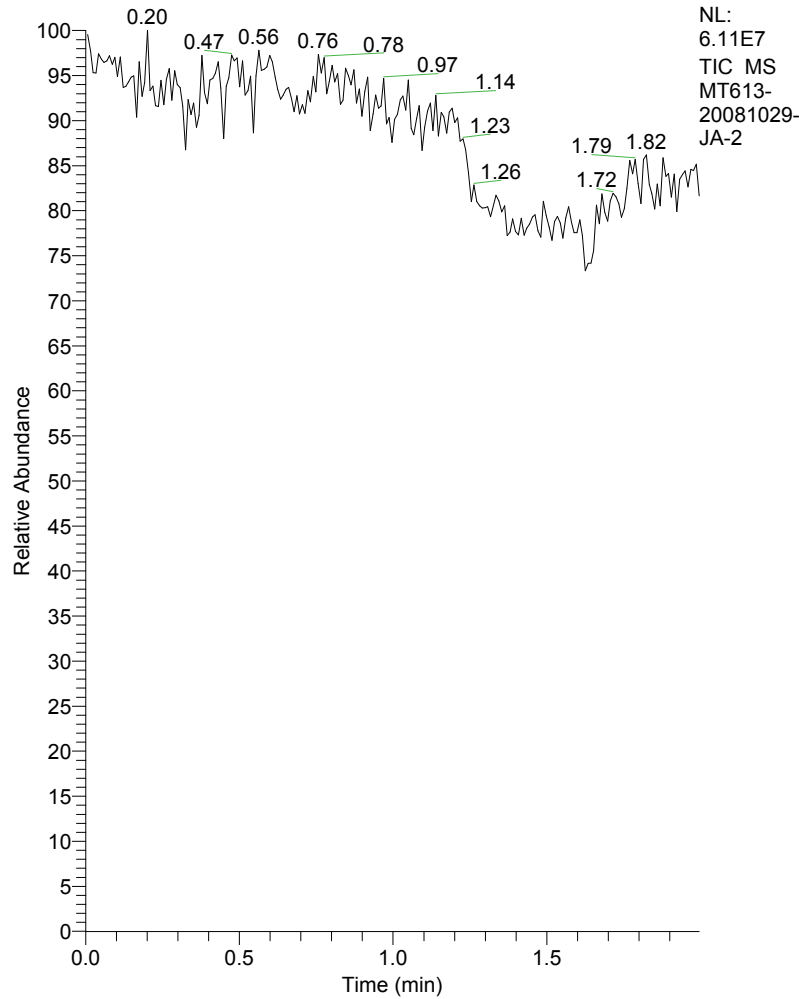
File Name	: L:\int42121	File Created	: 2/25/2014 1:56:56 PM
Origin	: Acquired, Acquisition started 9/11/2009 8:55:28 AM	Acquired Date	: 9/11/2009 9:35:27 AM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of blank injection	Modified	: 2/25/2014 2:00 PM
Created	: 6/12/2008 10:30 AM		
Column	:	Detection	: UV 259nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int42121 - 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



NL:
6.11E7
TIC MS
MT613-
20081029-
JA-2

MT613-20081029-JA-2#1-224 RT: 0.01-1.99

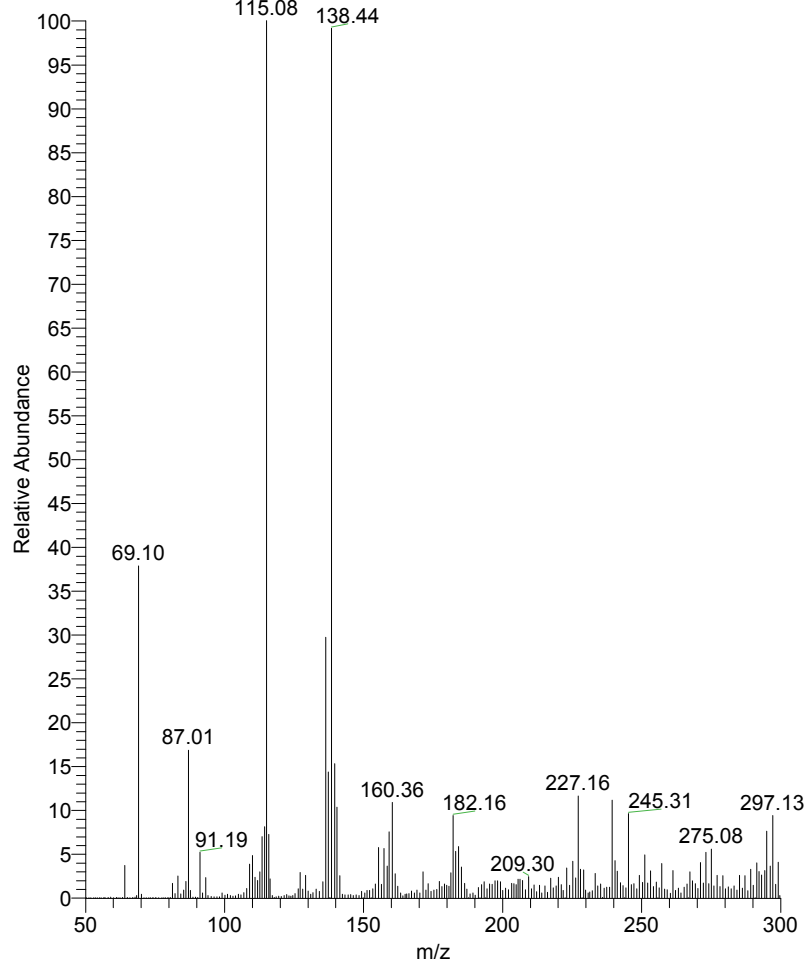
T: + c NSI Full ms [50.00-300.00]

m/z = 132.73-149.49

m/z	Intensity	Relative
132.95	71054.3	1.01
134.10	53138.5	0.75
135.29	131014.2	1.86
136.44	2114616.4	29.98
137.27	1021673.1	14.48
137.84	4073.7	0.06
138.44	7053813.0	100.00
139.59	1088739.7	15.43
140.46	735276.6	10.42
141.44	179194.9	2.54
142.41	28559.8	0.40
143.31	25886.6	0.37
144.45	24148.4	0.34
145.34	27156.4	0.38
146.27	18735.2	0.27
147.26	23366.3	0.33
148.33	19501.6	0.28
149.28	52973.7	0.75

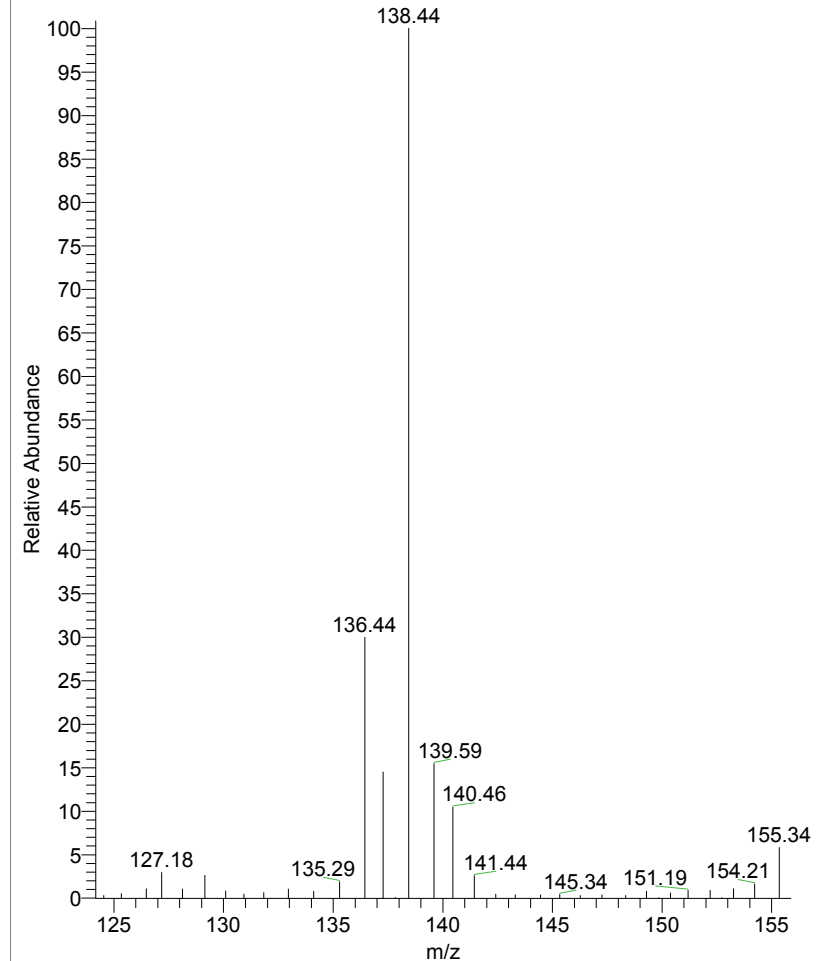
MT613-20081029-JA-2 #1-224 RT: 0.01-1.99 AV: 224 NL: 7.11E6

T: + c NSI Full ms [50.00-300.00]



MT613-20081029-JA-2 #1-224 RT: 0.01-1.99 AV: 224 NL: 7.05E6

T: + c NSI Full ms [50.00-300.00]



MT613 3H NMR in D2O
Batch 20081029-JA

8.117
8.071



NAME MT613
EXPNO 1
PROCNO 1
Date_ 20090914
Time_ 14.17
INSTRUM spect
PROBHD 5 mm DUX 3H-1H
PULPROG zg
TD 16384
SOLVENT D2O
NS 3990
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

