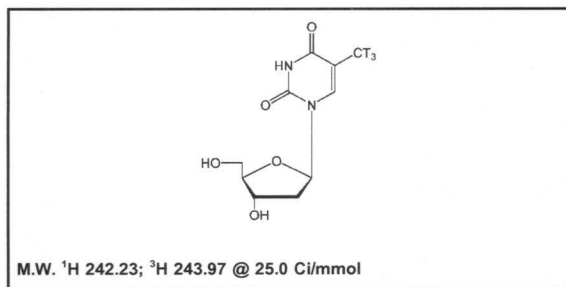




## Product Data Sheet

**MT-6038**

### Thymidine, [methyl-<sup>3</sup>H]-



**Lot #:** 846-160-025-A-20110826-THN

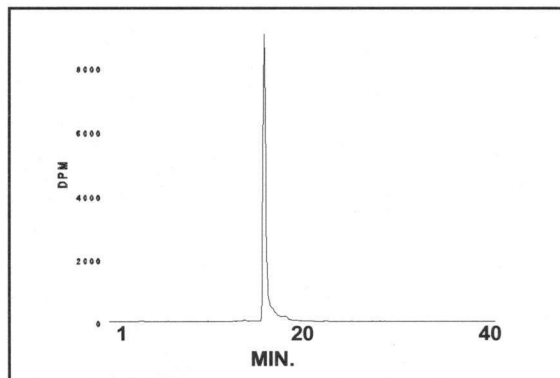
**Specific Activity:** 25.0 Ci/mmol

**Concentration:** 1.0 mCi/ml; 9.8 µg/ml

**Packaged in:** Sterile water solution

**Date of Analysis:** November 23, 2011

**Radiochemical Purity:** 97.5%



HPLC ANALYSIS LOT 846-160-025-A-20110826-THN  
File Name: int43239 Date and Time: 11/23/2011 12:09:14  
Unit 4 Radio

Peak #	Area %	Time	Area
1	0.17	3.33330	38.75136
2	1.09	14.06670	247.54703
3	97.53	16.11000	22208.12404
4	0.07	17.60330	15.73950
5	0.81	18.26670	185.38594
6	0.02	18.88330	4.21882
7	0.09	19.31670	19.47248
8	0.11	20.20000	25.20442
9	0.11	22.48000	25.06769
Totals	100.00		22769.51128

**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-6038**

**Thymidine, [methyl-<sup>3</sup>H]-**

**Lot 846-160-025-A-20110826-THN**

**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.

**Thymidine, [methyl-<sup>3</sup>H]-** concentration was 650  $\mu$ Ci/mL.

Volume of standard alone injection was 2.0  $\mu$ L.

Volume of **Thymidine, [methyl-<sup>3</sup>H]-** alone injection was 2.0  $\mu$ L.

Co-injection solution consisted of 2.0  $\mu$ L **Thymidine, [methyl-<sup>3</sup>H]-** + 2.0  $\mu$ L standard.

Volume of co-injection was 4.0  $\mu$ L.

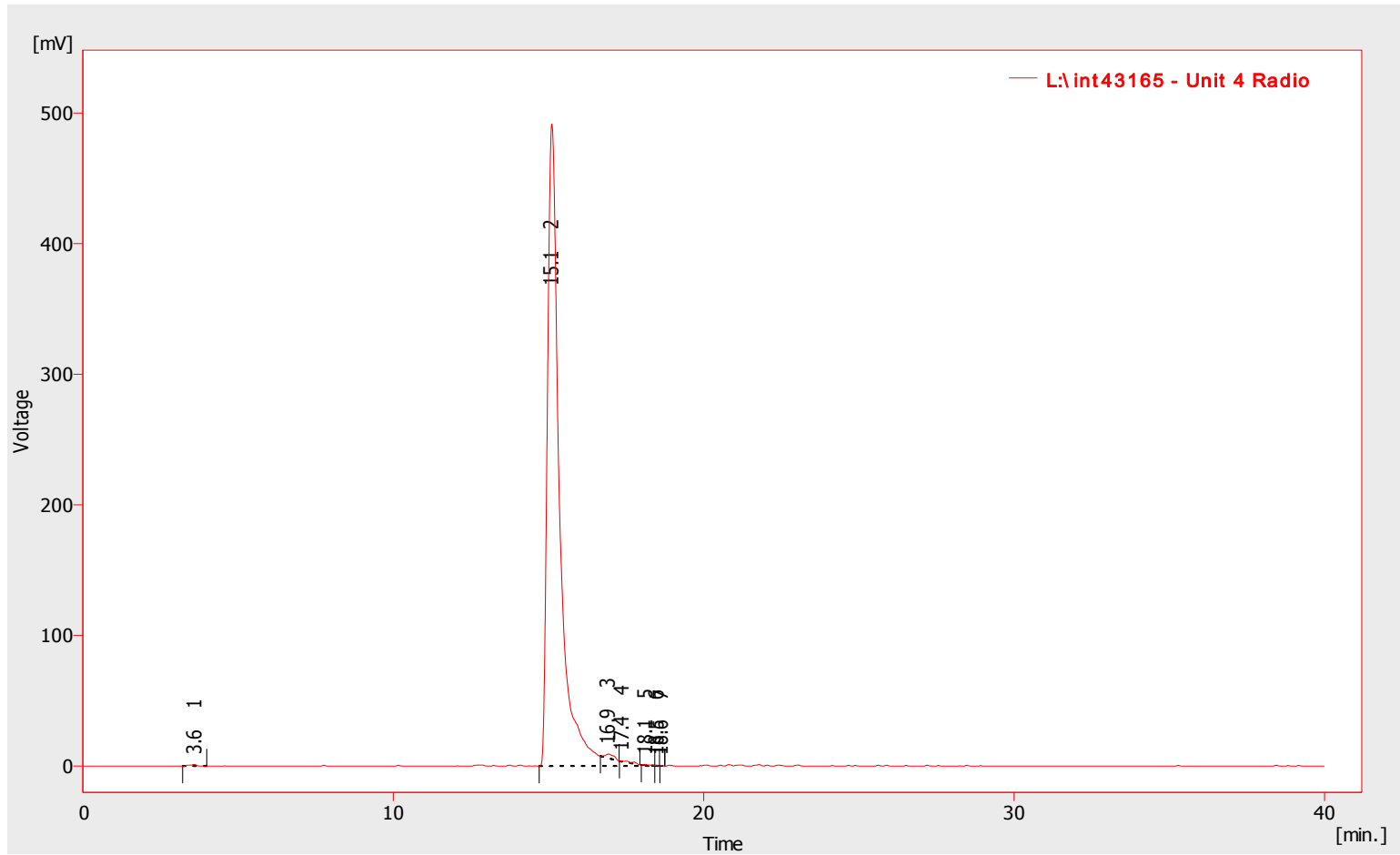
Volume of blank injection was 2.0  $\mu$ L.

**B) NMR**

**MT-6038**  
**Thymidine, [methyl-3H]-**  
**Lot 846-160-025-A-20110826-THN**

## Chromatogram Info:

File Name	: L:\int43165	File Created	: 10/5/2011 12:40:15 PM
Origin	: Acquired	Acquired Date	: 10/5/2011 12:39:51 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material alone	Modified	: 10/7/2011 11:05 AM
Created	: 3/9/2011 10:52 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



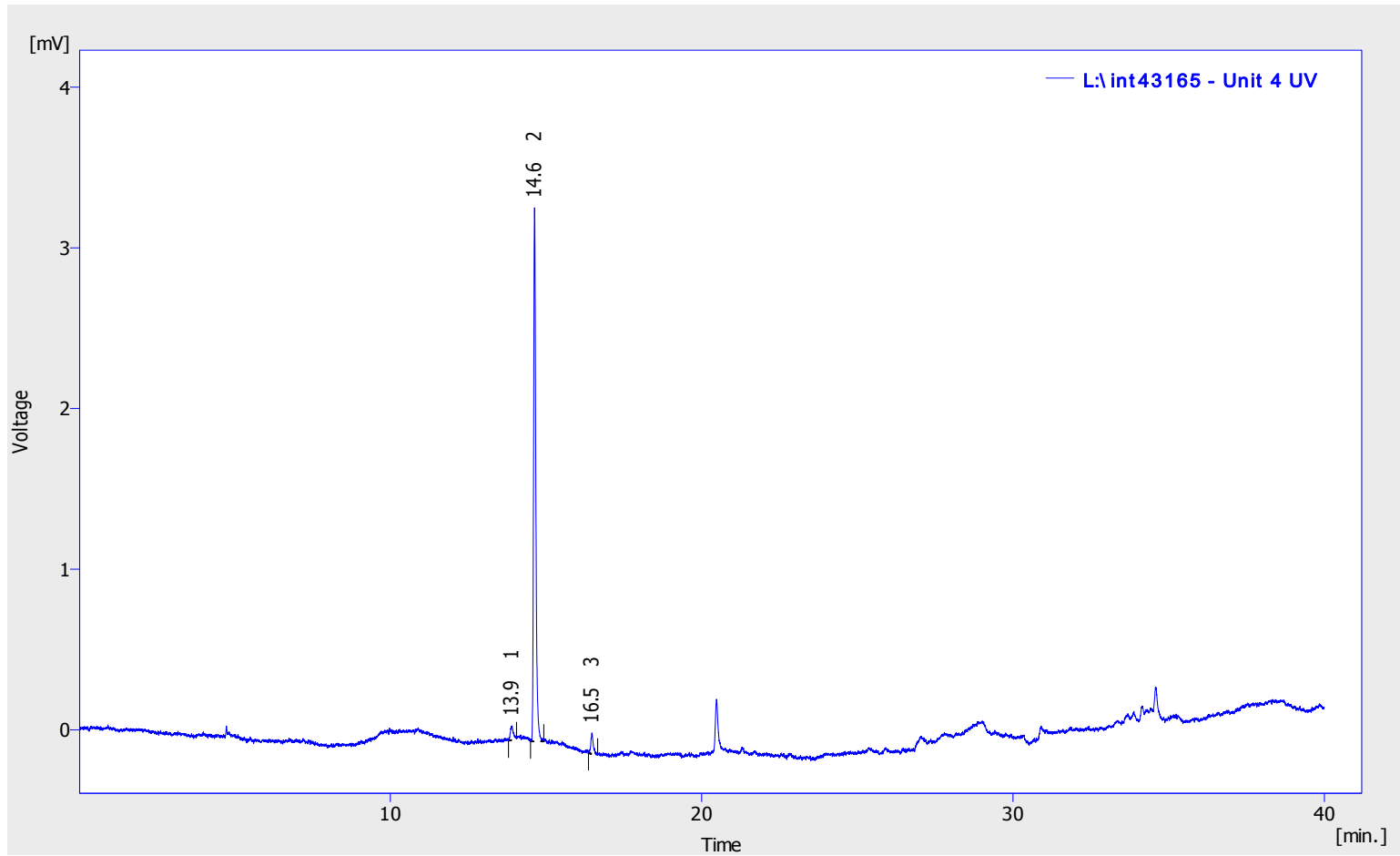
Result Table (Uncal - L:\int43165 - Unit 4 Radio)

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	3.607	20.831	1.273	0.15	0.3	0.32
2	15.107	13656.547	491.697	99.06	98.6	0.36
3	16.923	67.033	3.204	0.49	0.6	0.44
4	17.373	27.299	0.605	0.20	0.1	0.13
5	18.140	10.278	0.662	0.07	0.1	0.19
6	18.503	2.499	0.513	0.02	0.1	0.09
7	18.640	1.852	0.492	0.01	0.1	0.06
	Total	13786.339	498.445	100.00	100.0	

**MT-6038**  
**Thymidine, [methyl-3H]-**  
**Lot 846-160-025-A-20110826-THN**

## Chromatogram Info:

File Name	: L:\int43165	File Created	: 10/5/2011 12:40:15 PM
Origin	: Acquired	Acquired Date	: 10/5/2011 12:39:51 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of 3H material alone	Modified	: 10/7/2011 11:10 AM
Created	: 3/9/2011 10:52 AM		
Column	:	Detection	: UV 267nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



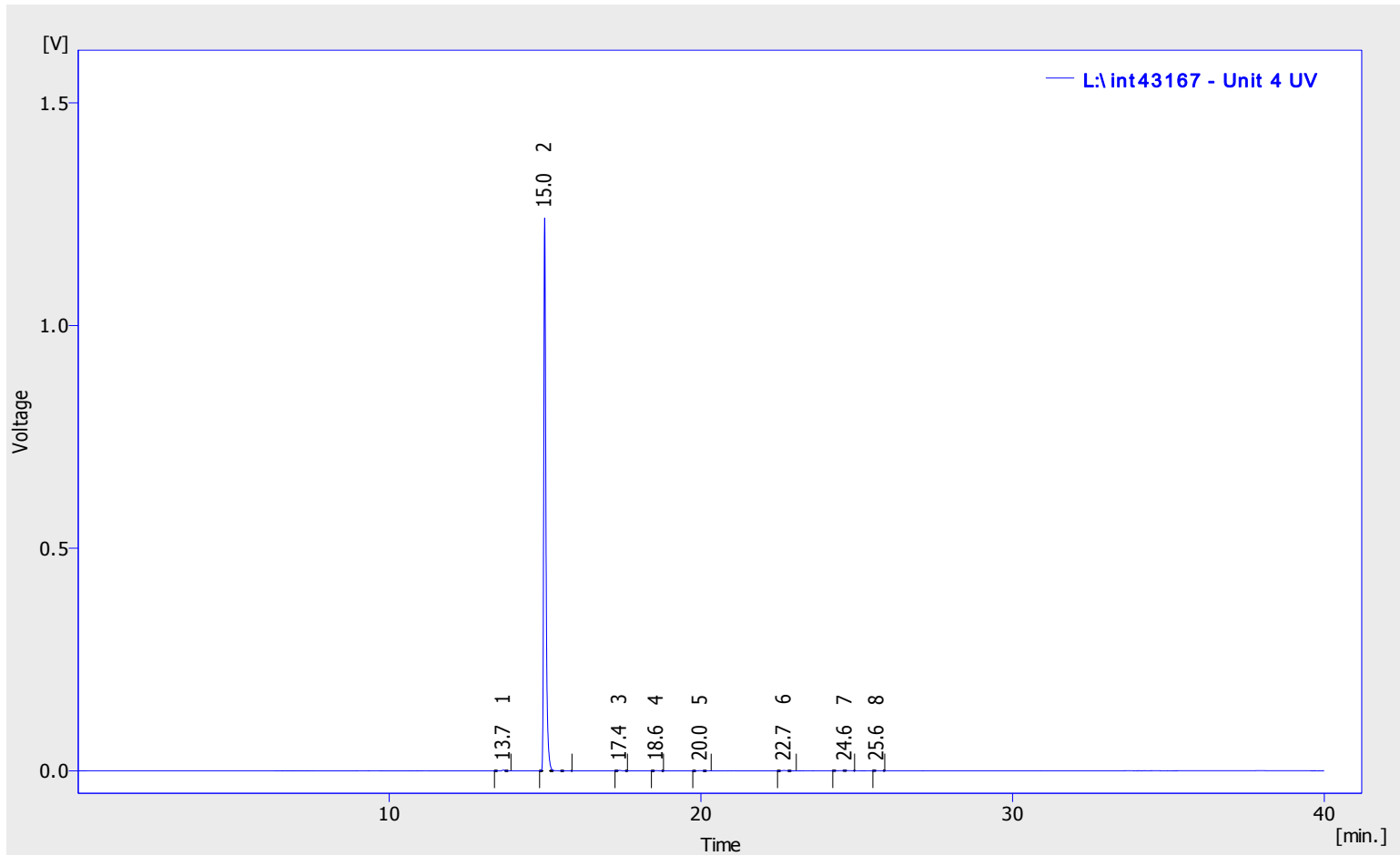
Result Table (Uncal - L:\int43165 - Unit 4 UV)

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	13.910	0.602	0.089	3.33	2.5	0.10
2	14.633	16.745	3.322	92.54	93.8	0.08
3	16.477	0.748	0.132	4.13	3.7	0.08
	Total	18.095	3.543	100.00	100.0	

**MT-6038**  
**Thymidine, [methyl-3H]-**  
**Lot 846-160-025-A-20110826-THN**

## Chromatogram Info:

File Name	: L:\int43167	File Created	: 10/6/2011 10:16:48 AM
Origin	: Acquired	Acquired Date	: 10/6/2011 10:16:28 AM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of standard alone	Modified	: 10/7/2011 11:11 AM
Created	: 3/9/2011 10:52 AM		
Column	:	Detection	: UV 267nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int43167 - Unit 4 UV)

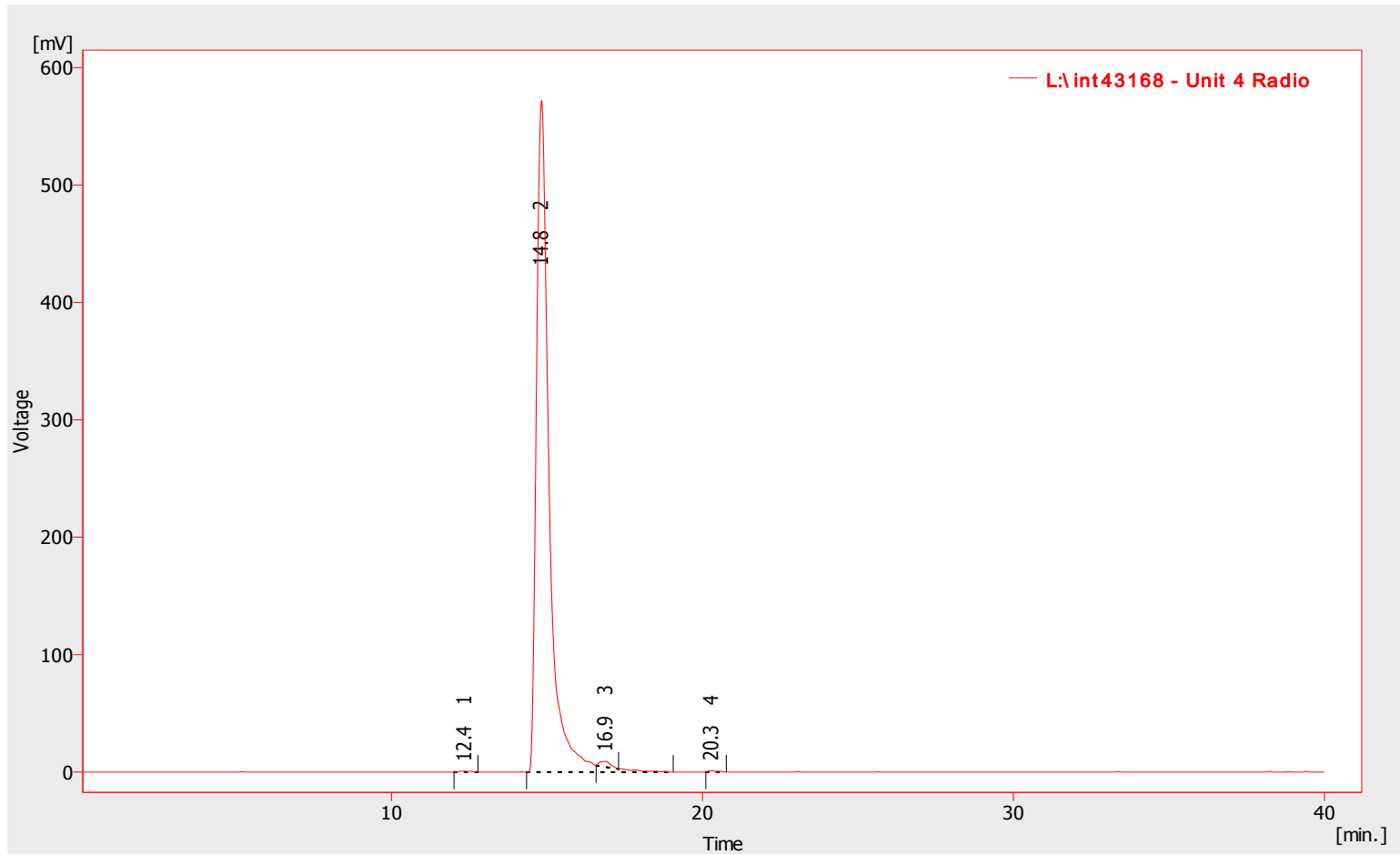
	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	13.660	9.759	1.701	0.16	0.1	0.09
2	14.987	6078.229	1241.086	99.31	99.6	0.07
3	17.390	6.218	1.048	0.10	0.1	0.09
4	18.573	3.558	0.636	0.06	0.1	0.08
5	19.980	5.434	0.507	0.09	0.0	0.09
6	22.663	7.510	0.880	0.12	0.1	0.10
7	24.623	7.949	0.370	0.13	0.0	0.36
8	25.643	1.876	0.249	0.03	0.0	0.11
	Total	6120.534	1246.477	100.00	100.0	



**MT-6038**  
**Thymidine, [methyl-3H]-**  
**Lot 846-160-025-A-20110826-THN**

## Chromatogram Info:

File Name	: L:\int43168	File Created	: 10/6/2011 12:10:47 PM
Origin	: Acquired	Acquired Date	: 10/6/2011 12:10:24 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material co-injected with standard	Modified	: 10/7/2011 11:13 AM
Created	: 3/9/2011 10:52 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



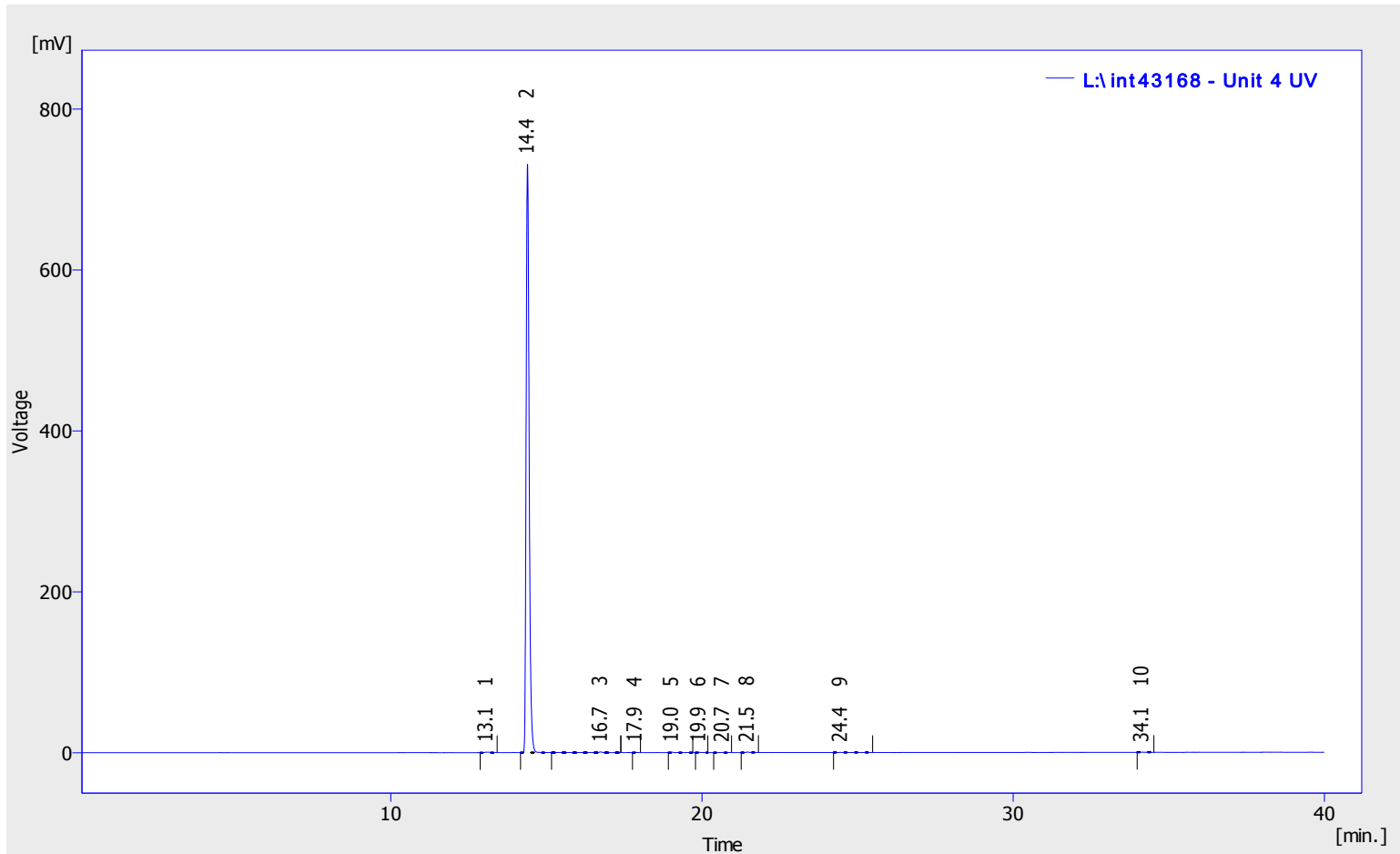
Result Table (Uncal - L:\int43168 - Unit 4 Radio)

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	12.363	19.811	0.791	0.12	0.1	0.29
2	14.827	16432.813	572.061	99.03	98.8	0.40
3	16.900	115.955	5.031	0.70	0.9	0.39
4	20.300	24.991	1.278	0.15	0.2	0.23
	Total	16593.571	579.161	100.00	100.0	

**MT-6038**  
**Thymidine, [methyl-3H]-**  
**Lot 846-160-025-A-20110826-THN**

## Chromatogram Info:

File Name	: L:\int43168	File Created	: 10/6/2011 12:10:47 PM
Origin	: Acquired	Acquired Date	: 10/6/2011 12:10:24 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of 3H material co-injected with standard	Modified	: 10/7/2011 11:14 AM
Created	: 3/9/2011 10:52 AM		
Column	:	Detection	: UV 267nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



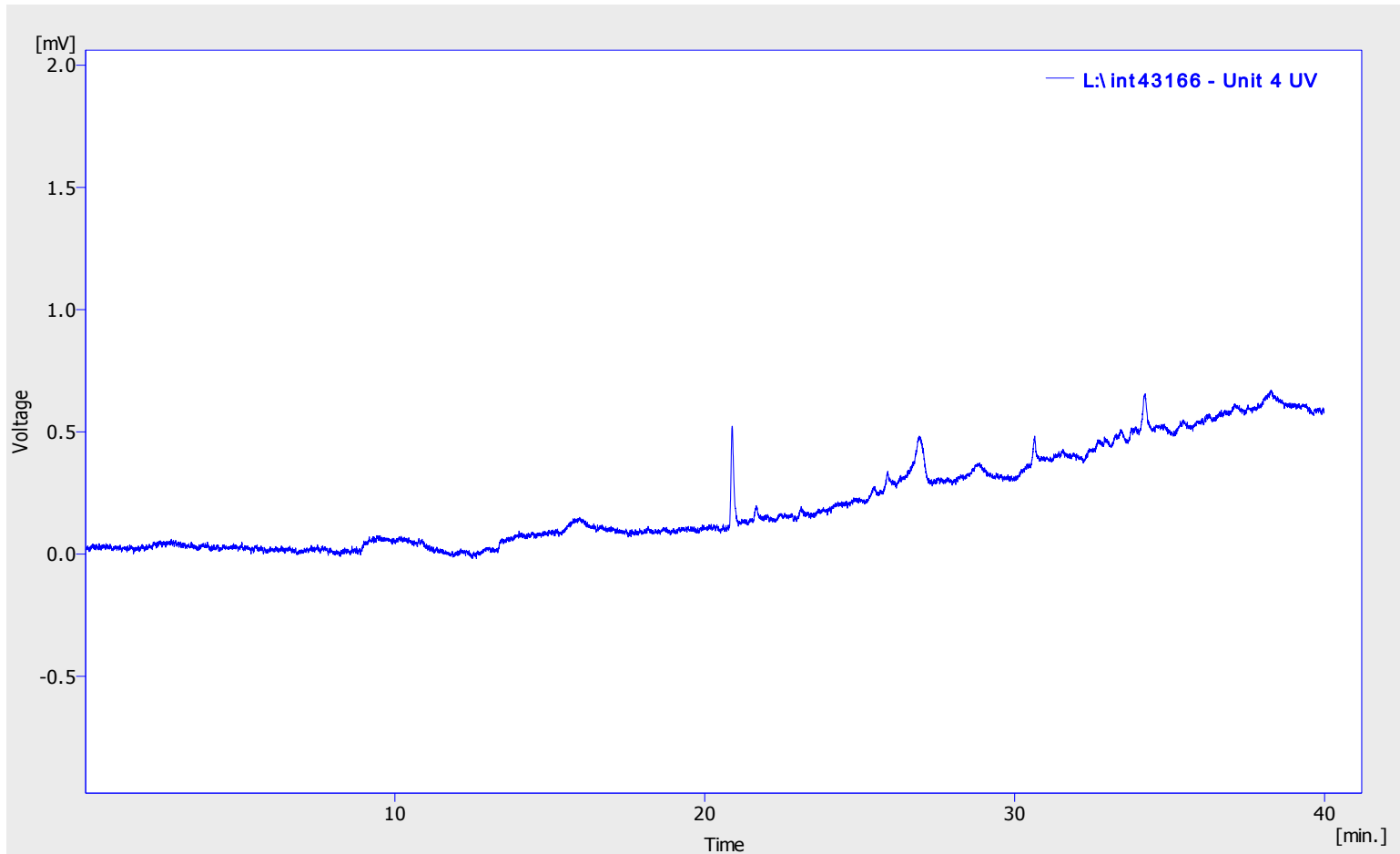
Result Table (Uncal - L:\int43168 - Unit 4 UV)

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	13.067	7.557	0.617	0.15	0.1	0.20
2	14.393	4933.440	731.379	99.08	99.4	0.11
3	16.743	12.891	0.828	0.26	0.1	0.10
4	17.850	2.609	0.481	0.05	0.1	0.08
5	19.023	5.416	0.509	0.11	0.1	0.11
6	19.897	2.801	0.404	0.06	0.1	0.10
7	20.657	1.436	0.147	0.03	0.0	0.11
8	21.463	5.680	0.707	0.11	0.1	0.10
9	24.447	4.667	0.220	0.09	0.0	0.12
10	34.137	2.659	0.206	0.05	0.0	0.21
	Total	4979.157	735.499	100.00	100.0	

**MT-6038**  
**Thymidine, [methyl-3H]-**  
**Lot 846-160-025-A-20110826-THN**

## Chromatogram Info:

File Name	: L:\int43166	File Created	: 10/5/2011 4:15:08 PM
Origin	: Acquired	Acquired Date	: 10/5/2011 4:14:41 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of blank injection	Modified	: 10/7/2011 11:18 AM
Created	: 3/9/2011 10:52 AM		
Column	:	Detection	: UV 267nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



*Result Table (Uncal - L:\int43166 - Unit 4 UV)*

Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
No peak to report					

MT6038 3H NMR in D2O  
Batch 20110826-THN



**BRUKER**

7.587  
7.541  
7.587

1.841  
1.800  
1.751

3.285

1.122

NAME MT6038-20110826-THN  
EXPNO 2  
PROCNO 1  
Date\_ 20111011  
Time\_ 15.13  
INSTRUM spect  
PROBHD 5 mm DUX 3H-1H  
PULPROG zg  
TD 16384  
SOLVENT D2O  
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  
SFO1 320.1321857 MHz  
SI 32768  
SF 320.1305850 MHz  
WDW no  
SSB 0  
LB 0.00 Hz  
GB 0  
PC 1.00

