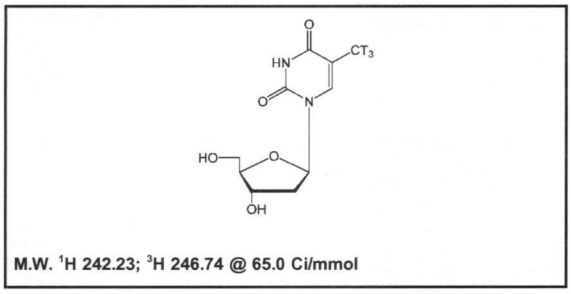
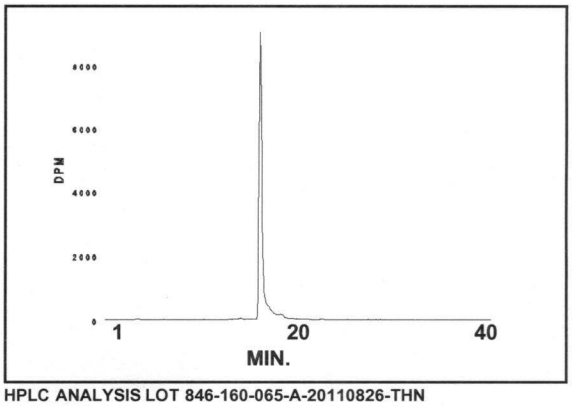
Product Data Sheet

MT-6036

Thymidine, [methyl-^{3}H]-



M.W. ^{1}H 242.23; ^{3}H 246.74 @ 65.0 Ci/mmol



HPLC ANALYSIS LOT 846-160-065-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

Lot #: 846-160-065-A-20110826-THN

Specific Activity: 65.0 Ci/mmol

Concentration: 1.0 mCi/ml; 3.80 μg/ml

Packaged in: Sterile water solution

Date of Analysis: November 23, 2011

Radiochemical Purity: 97.5%

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.

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MT-6036

Thymidine, [methyl-^{3}H]-

Lot 846-160-065-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-^{3}H]- concentration was 650 µCi/mL.

Volume of standard alone injection was 2.0 µL.

Volume of **Thymidine, [methyl-^{3}H]-** alone injection was 2.0 µL.

Co-injection solution consisted of 2.0 µL **Thymidine, [methyl-^{3}H]-** + 2.0 µL standard.

Volume of co-injection was 4.0 µL.

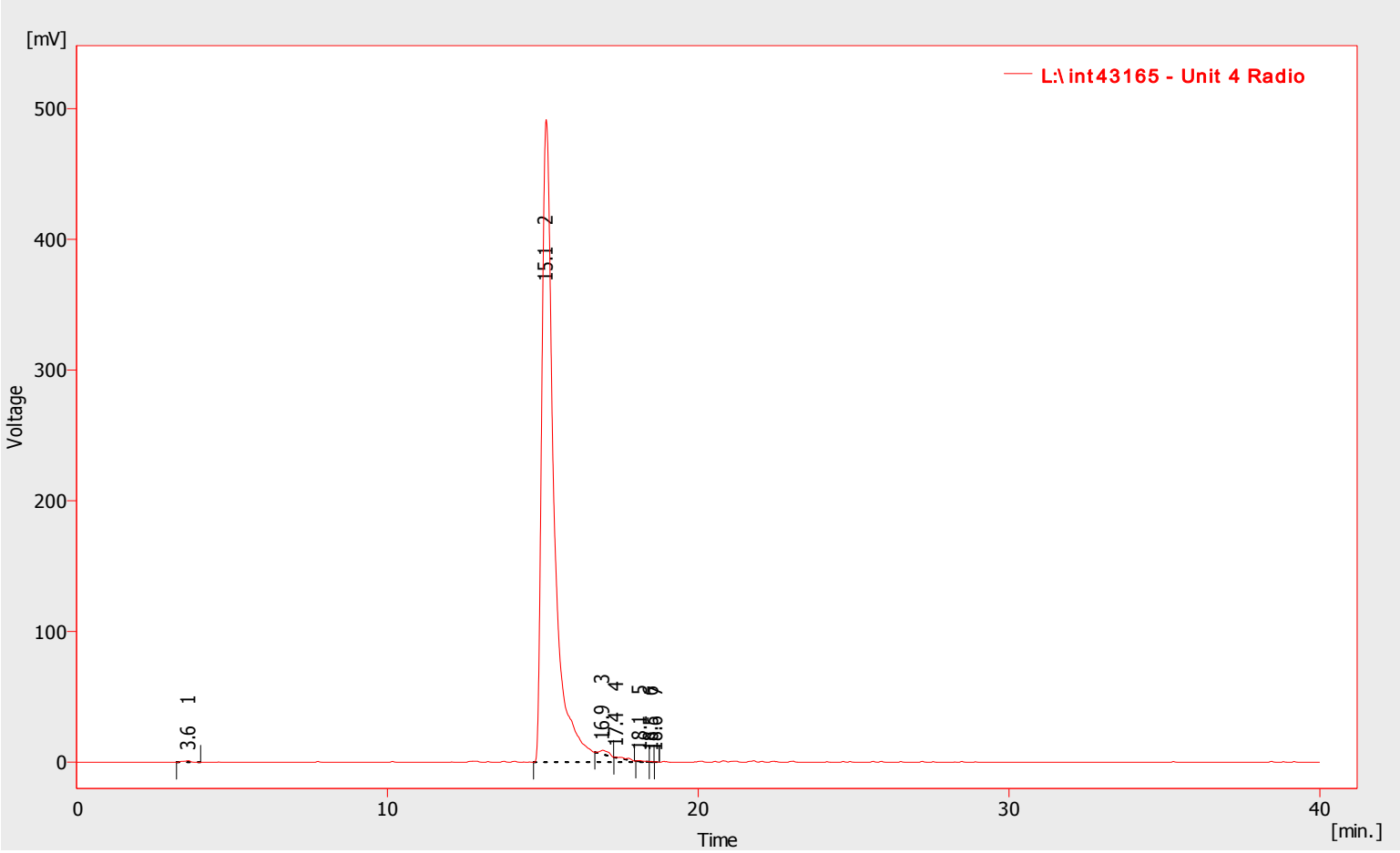
Volume of blank injection was 2.0 µL.

B) NMR

MT-6036
Thymidine, [methyl-3H]-
Lot 846-160-065-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		
Created	: 3/9/2011 10:52 AM	Modified	: 10/7/2011 11:05 AM
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



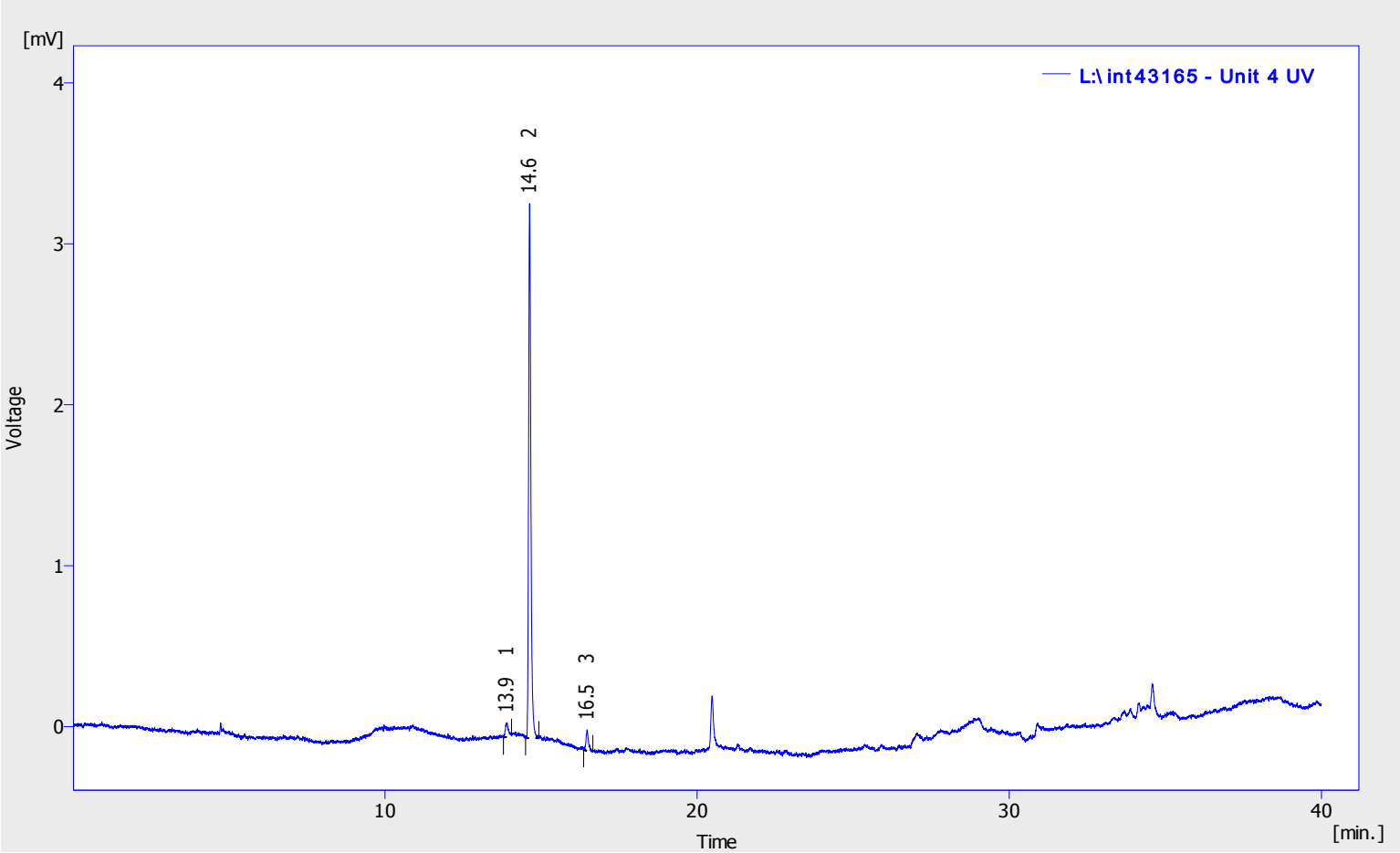
Result Table (Uncal - L:\int43165 - Unit 4 Radio)

	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-6036
Thymidine, [methyl-3H]-
Lot 846-160-065-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		
Created	: 3/9/2011 10:52 AM	Modified	: 10/7/2011 11:10 AM
Column	:	Detection	: UV 267nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



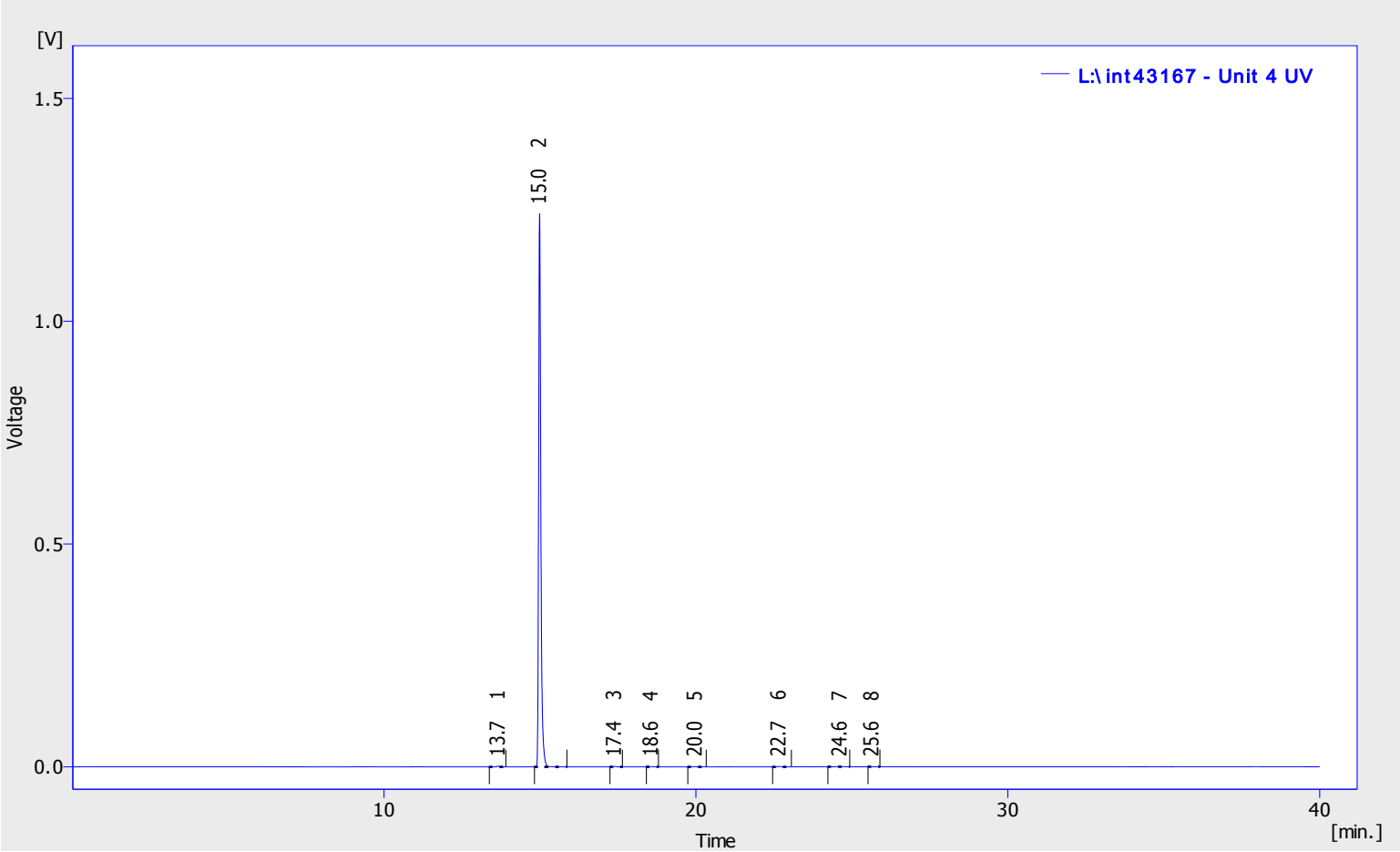
Result Table (Uncal - L:\int43165 - Unit 4 UV)

	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-6036
Thymidine, [methyl-3H]-
Lot 846-160-065-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		
Created	: 3/9/2011 10:52 AM	Modified	: 10/7/2011 11:11 AM
Column	:	Detection	: UV 267nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



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

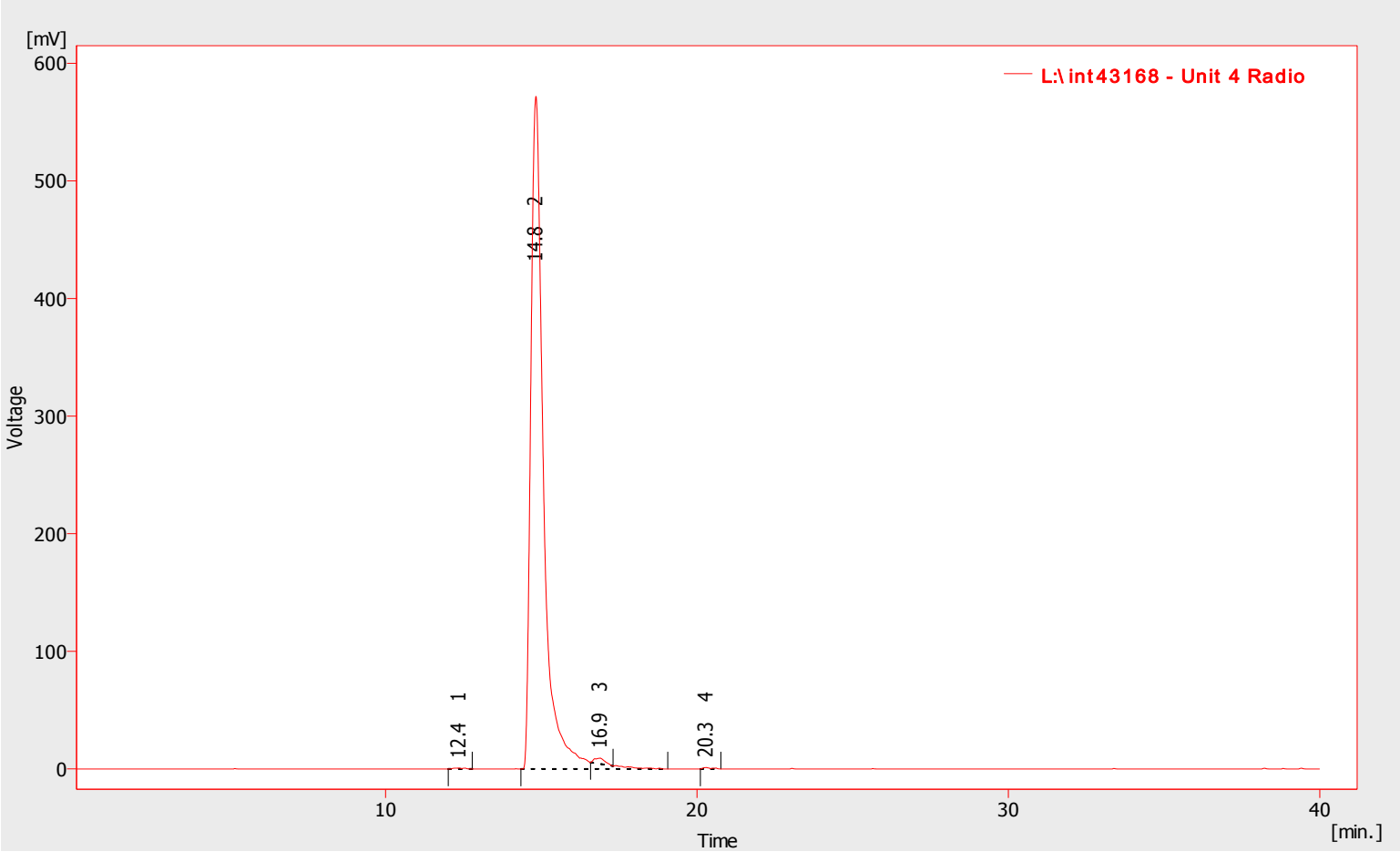
	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	13.660	9.759	1.701	0.16	0.1	0.09
2	14.987	6078.229	1241.086	99.31	99.6	0.07
3	17.390	6.218	1.048	0.10	0.1	0.09
4	18.573	3.558	0.636	0.06	0.1	0.08
5	19.980	5.434	0.507	0.09	0.0	0.09
6	22.663	7.510	0.880	0.12	0.1	0.10
7	24.623	7.949	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-6036
Thymidine, [methyl-3H]-
Lot 846-160-065-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		
Created	: 3/9/2011 10:52 AM	Modified	: 10/7/2011 11:13 AM
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



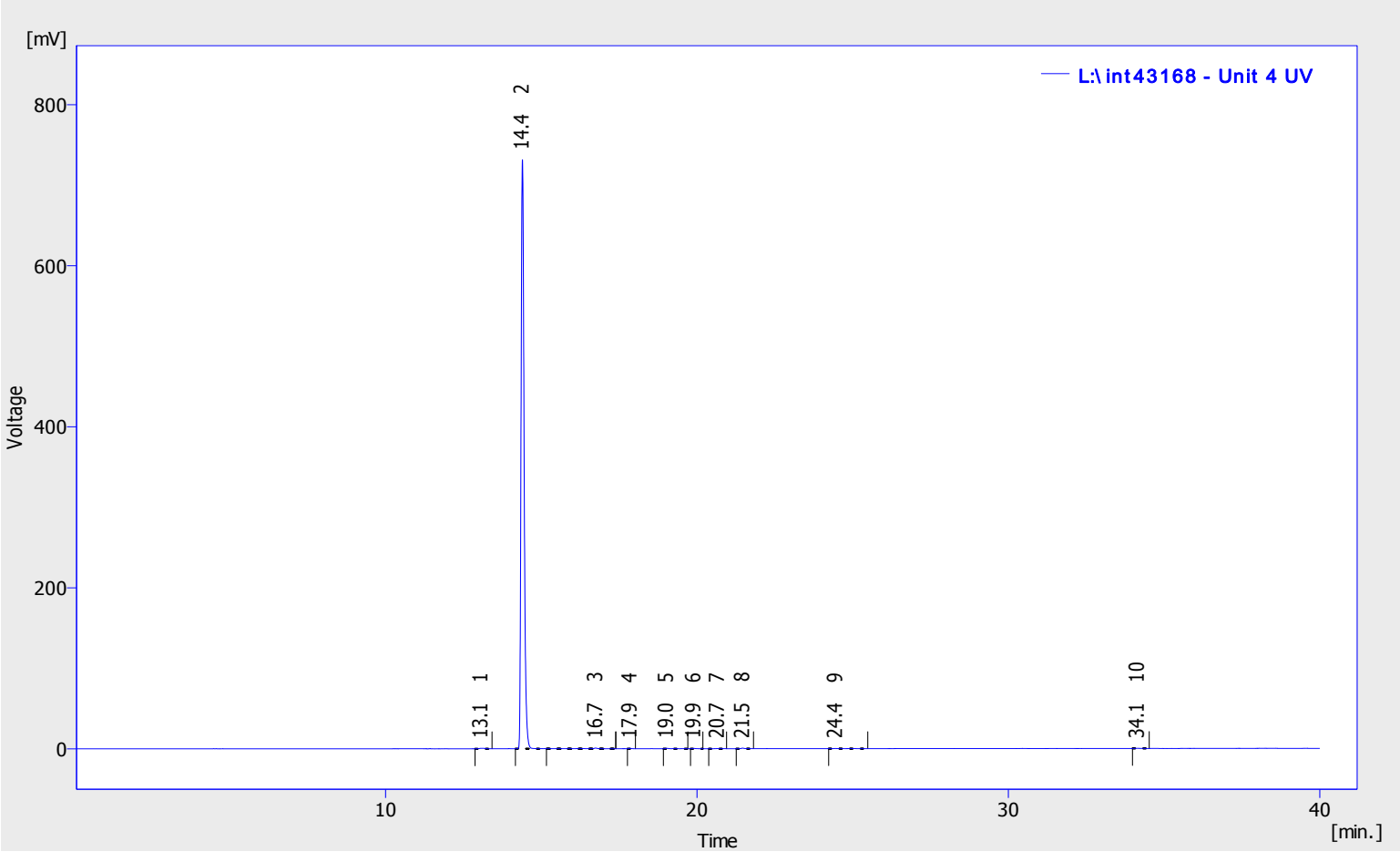
Result Table (Uncal - L:\int43168 - Unit 4 Radio)

	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-6036
Thymidine, [methyl-3H]-
Lot 846-160-065-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		
Created	: 3/9/2011 10:52 AM	Modified	: 10/7/2011 11:14 AM
Column	:	Detection	: UV 267nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



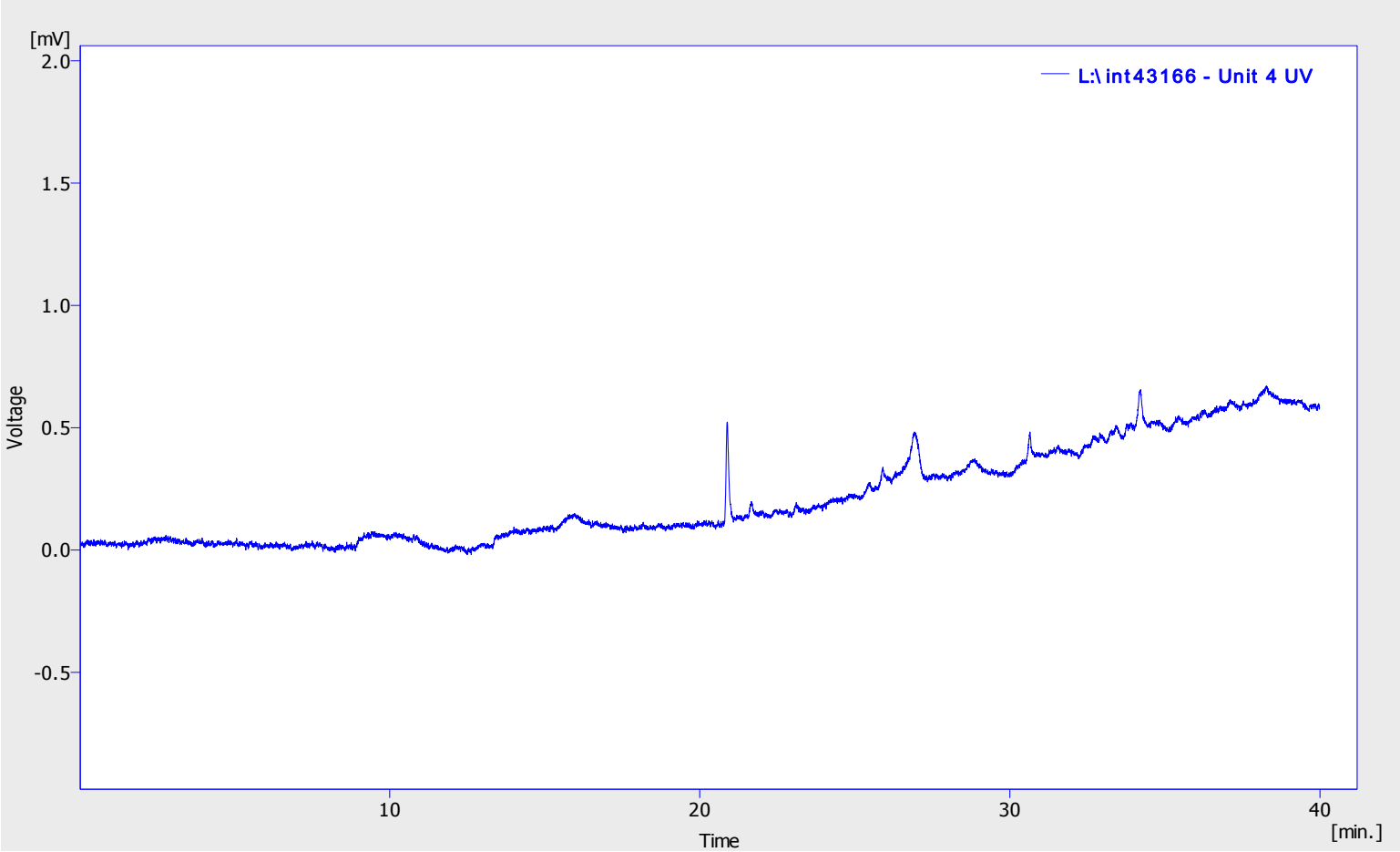
Result Table (Uncal - L:\int43168 - Unit 4 UV)

	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-6036
Thymidine, [methyl-3H]-
Lot 846-160-065-A-20110826-THN

Chromatogram Info:

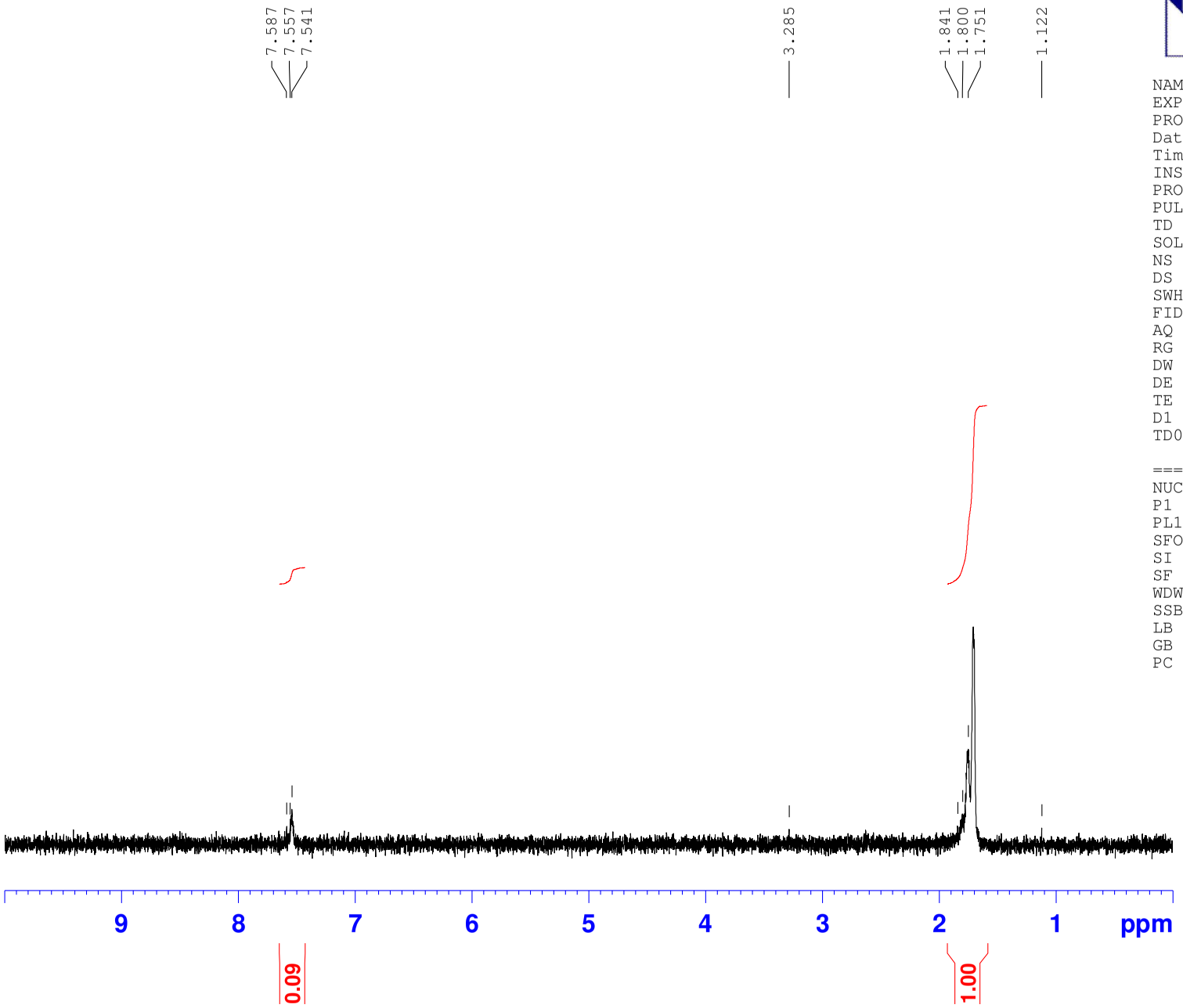
File Name	: L:\int43166	File Created	: 10/5/2011 4:15:08 PM
Origin	: Acquired	Acquired Date	: 10/5/2011 4:14:41 PM
Project	: Test	By	: Administrator
Method	: Unit4-40minrun	By	: Administrator
Description	: UV trace of blank injection		
Created	: 3/9/2011 10:52 AM	Modified	: 10/7/2011 11:18 AM
Column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

MT6036 3H NMR in D2O
Batch 20110826-THN



NAME	MT6036-20110826-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