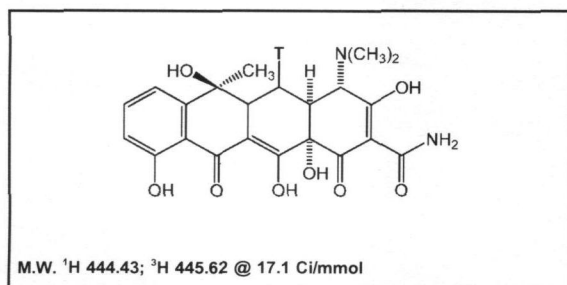




Product Data Sheet

MT-907H

Tetracycline, [7-³H]-



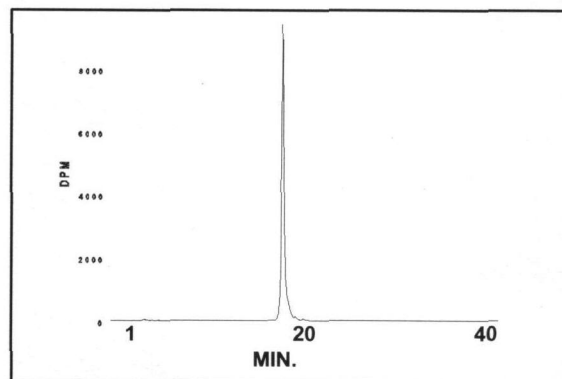
Lot #: 217-012-0171-A-20110411-TN

Specific Activity: 17.1 Ci/mmol

Packaged as: Crystalline solid

Date of Analysis: July 26, 2011

Radiochemical Purity: 98.4%



HPLC ANALYSIS LOT 217-012-0171-A-20110411-TN
File Name: int21240 Date and Time: 7/26/2011 2:48:46 PM
Unit 2 Radio

Peak #	Area %	Time	Area
1	0.44	3.54670	85.26684
2	0.10	16.45330	19.48829
3	0.19	16.98670	37.16107
4	98.43	17.80000	19139.33040
5	0.33	19.15330	63.90311
6	0.51	19.97330	99.55335
Totals	100.00		19444.70306

Stability and Storage Recommendation: The rate of decomposition is approximately 1%/month for the first six months after purification when stored 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-907H

Tetracycline, [7-³H(N)]-

Lot 217-012-0171-A-20110411-TN

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.

Tetracycline, [7-³H(N)]- concentration was 50.0 µCi/ml.

Volume of standard alone injection was 2.0 µl.

Volume of **Tetracycline, [7-³H(N)]-** alone injection was 1.0 µl.

Co-injection solution consisted of 1.0 µl **Tetracycline, [7-³H(N)]-** + 2.0 µl standard.

Volume of co-injection was 3.0 µl.

Volume of blank injection was 1.0 µl.

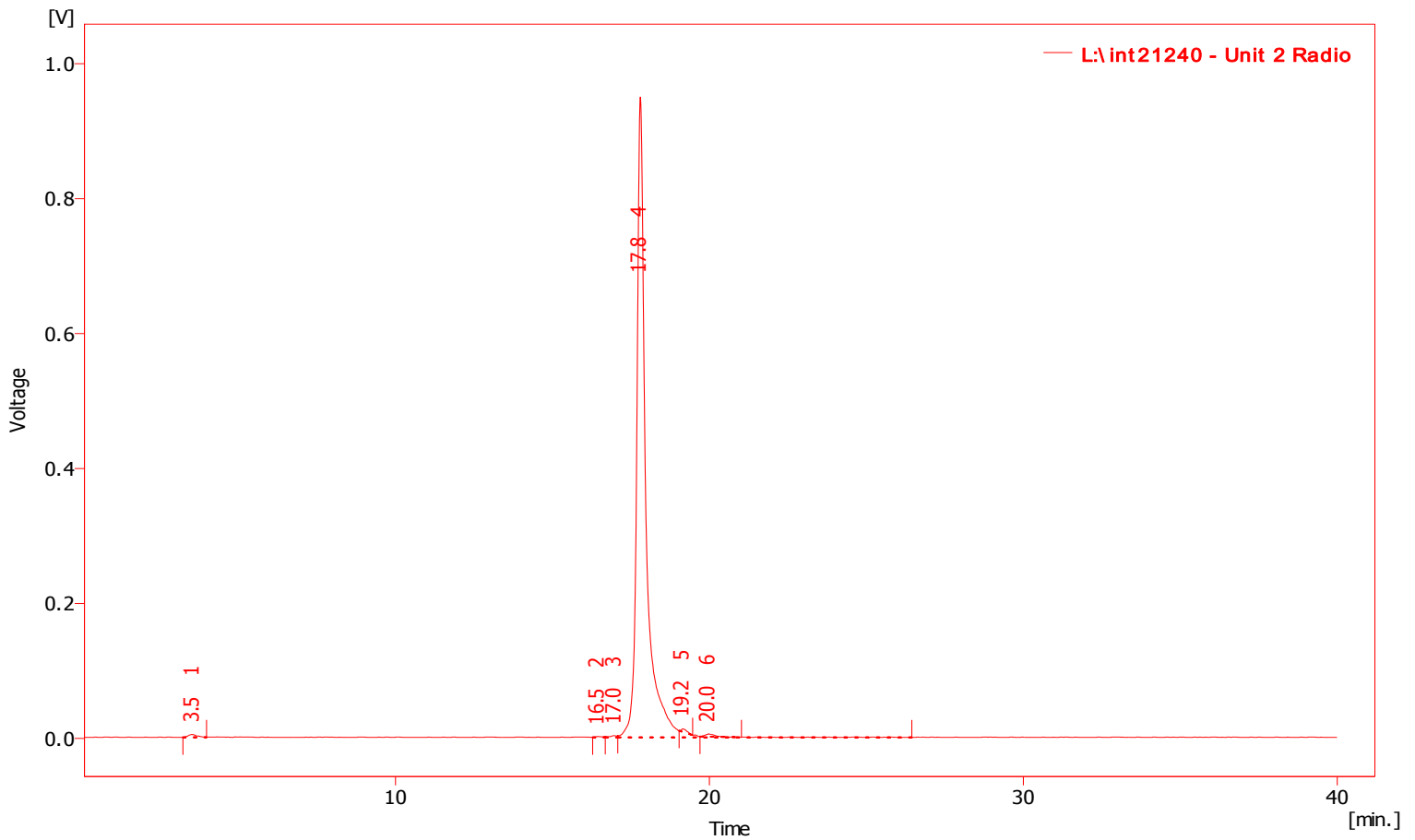
B) Mass spectrometry – Positive mode

C) NMR

MT-907H
Tetracycline, [7-3H(N)]-
Lot 217-012-0171-A-20110411-TN

Chromatogram Info:

File Name	: L:\int21240	File Created	: 3/20/2014 9:32:35 AM
Origin	: Acquired, Acquisition started 7/26/2011 2:08:47 PM	Acquired Date	: 7/26/2011 2:48:46 PM
Project	: Test	By	: Administrator
Method	: Unit2-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material alone	Modified	: 3/20/2014 10:42 AM
Created	: 6/16/2007 8:19 AM	Detection	: Radiochemical
Column	:	Temperature	:
Mobile Phase	:	Pressure	:
Flow Rate	:	Note	:



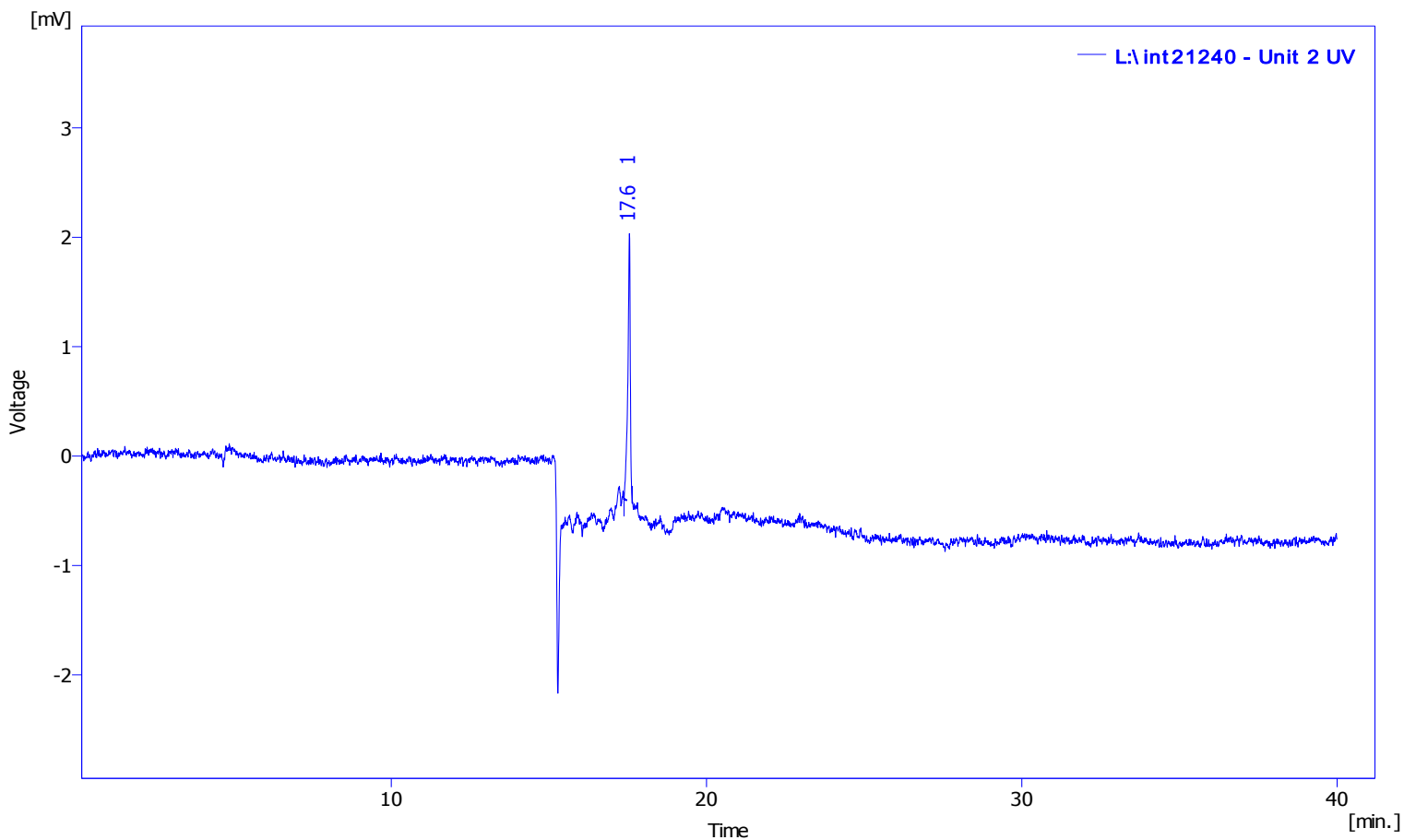
Result Table (Uncal - L:\int21240 - Unit 2 Radio)

	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		3.55	85.267	4.35	0.44	0.45	979.97	19599.41	1.13		
2		16.45	19.488	1.43	0.10	0.15	32953.39	659067.83	1.18		31.7
3		16.99	37.161	2.46	0.19	0.25	27752.60	555051.92	0.65		1.4
4		17.80	19139.330	948.92	98.43	98.19	27350.49	547009.78	2.97		1.9
5		19.15	63.903	4.82	0.33	0.50	50808.75	1016174.99	1.71		3.5
6		19.97	99.553	4.41	0.51	0.46	21582.96	431659.10	1.56		1.9
		Total	19444.703	966.40	100.00	100.00					

MT-907H
Tetracycline, [7-3H(N)]-
Lot 217-012-0171-A-20110411-TN

Chromatogram Info:

File Name	: L:\int21240	File Created	: 3/20/2014 9:32:35 AM
Origin	: Acquired, Acquisition started 7/26/2011 2:08:47 PM	Acquired Date	: 7/26/2011 2:48:46 PM
Project	: Test	By	: Administrator
Method	: Unit2-40minrun	By	: Administrator
Description	: UV trace of 3H material alone	Modified	: 3/20/2014 10:42 AM
Created	: 6/16/2007 8:19 AM		
Column	:	Detection	: UV 374nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



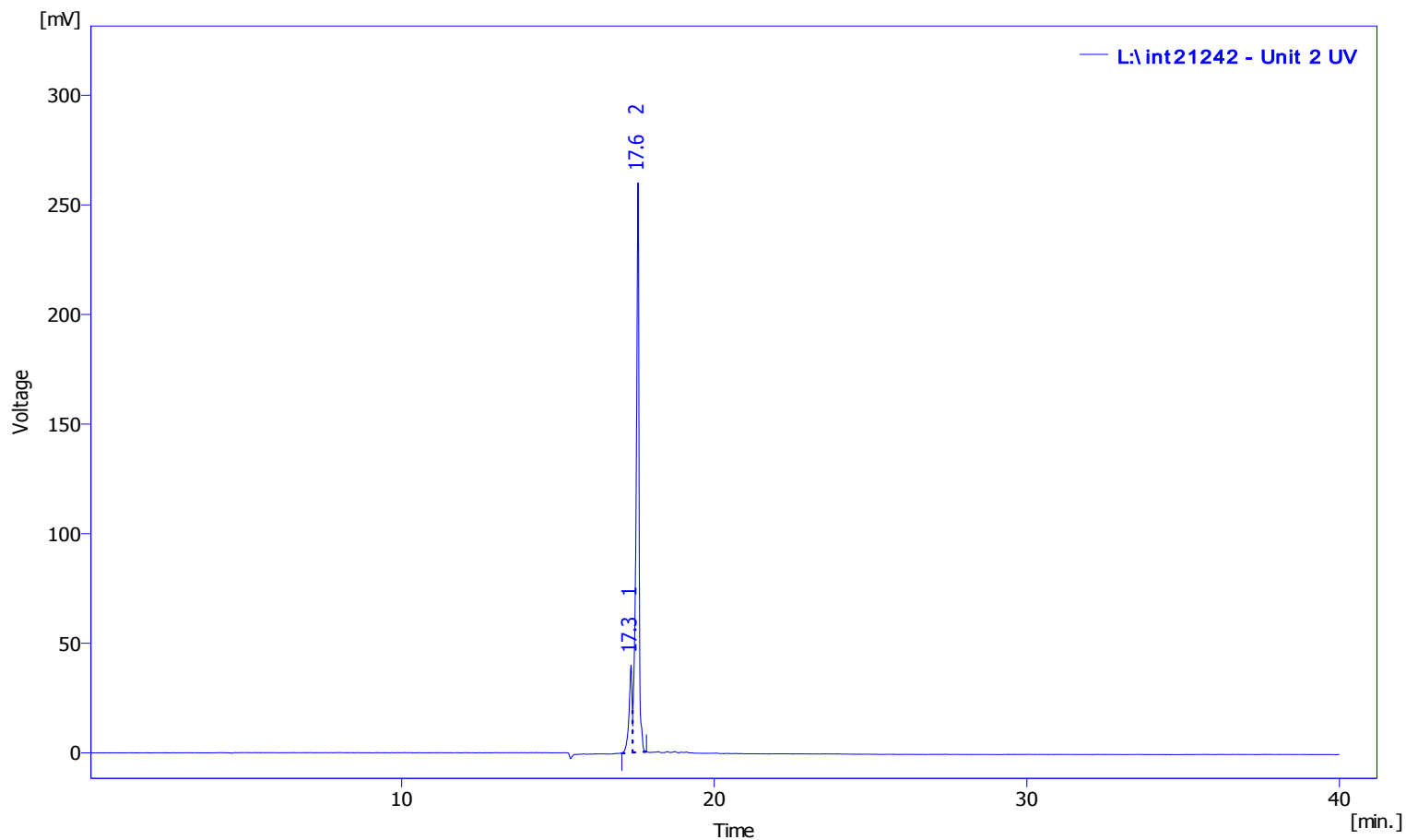
Result Table (Uncal - L:\int21240 - Unit 2 UV)

	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		17.55	13.255	2.45	100.00	100.00	290412.83	5808256.64	0.73		
		Total	13.255	2.45	100.00	100.00					

MT-907H
Tetracycline, [7-3H(N)]-
Lot 217-012-0171-A-20110411-TN

Chromatogram Info:

File Name	: L:\int21242	File Created	: 3/20/2014 9:32:35 AM
Origin	: Acquired, Acquisition started 7/27/2011 9:07:23 AM	Acquired Date	: 7/27/2011 9:47:22 AM
Project	: Test	By	: Administrator
Method	: Unit2-40minrun	By	: Administrator
Description	: UV trace of standard material alone	Modified	: 3/20/2014 10:44 AM
Created	: 6/16/2007 8:19 AM		
Column	:	Detection	: UV 374nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



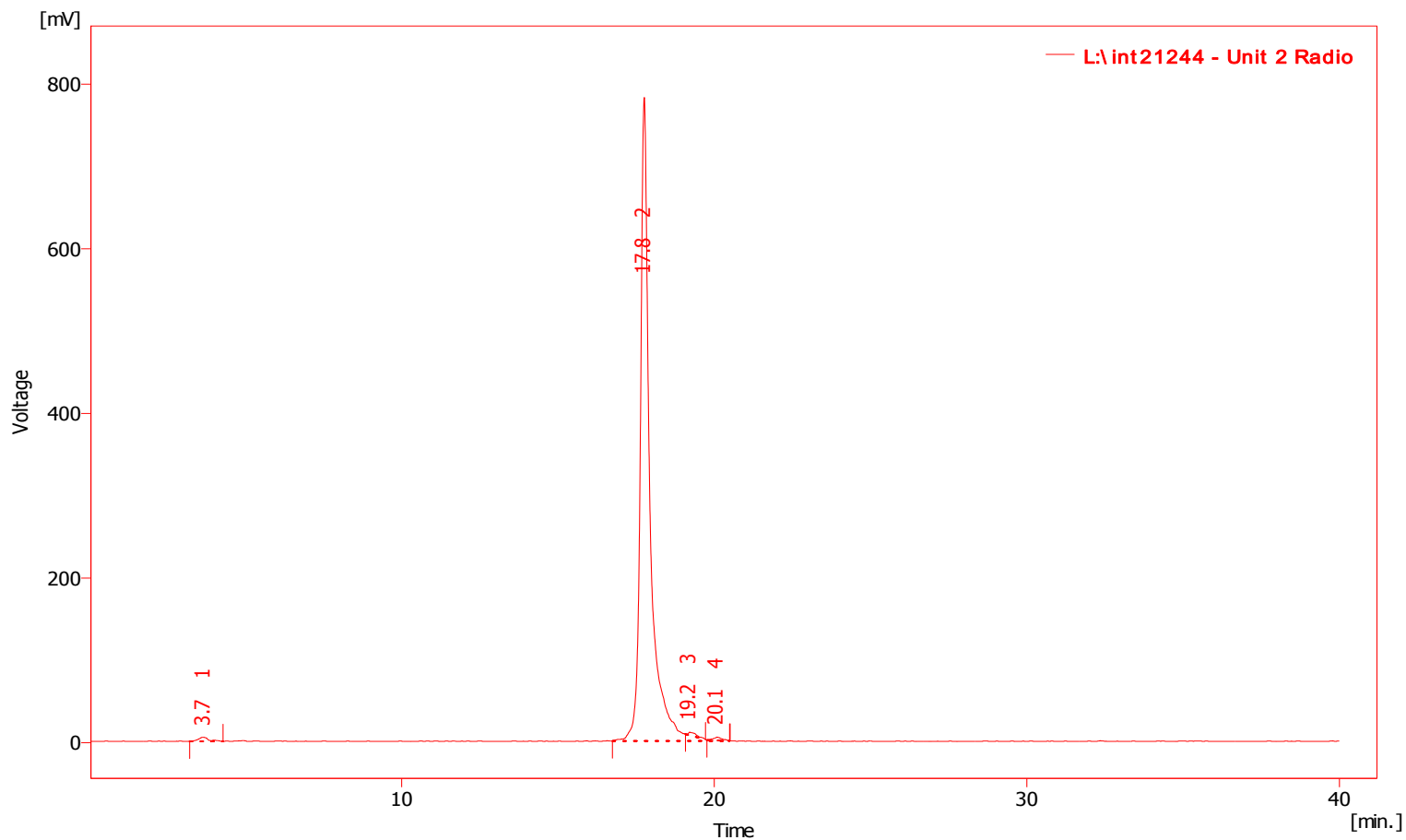
Result Table (Uncal - L:\int21242 - Unit 2 UV)

	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		17.34	267.149	40.01	13.76	13.35	129636.00	2592720.10	0.64		
2		17.56	1673.796	259.77	86.24	86.65	196177.91	3923558.16	0.78		1.3
		Total	1940.945	299.78	100.00	100.00					

MT-907H
Tetracycline, [7-3H(N)]-
Lot 217-012-0171-A-20110411-TN

Chromatogram Info:

File Name	: L:\int21244	File Created	: 3/20/2014 9:32:34 AM
Origin	: Acquired, Acquisition started 7/27/2011 12:05:00 PM	Acquired Date	: 7/27/2011 12:44:59 PM
Project	: Test	By	: Administrator
Method	: Unit2-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material co-injected with standard	Modified	: 3/20/2014 10:47 AM
Created	: 6/16/2007 8:19 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



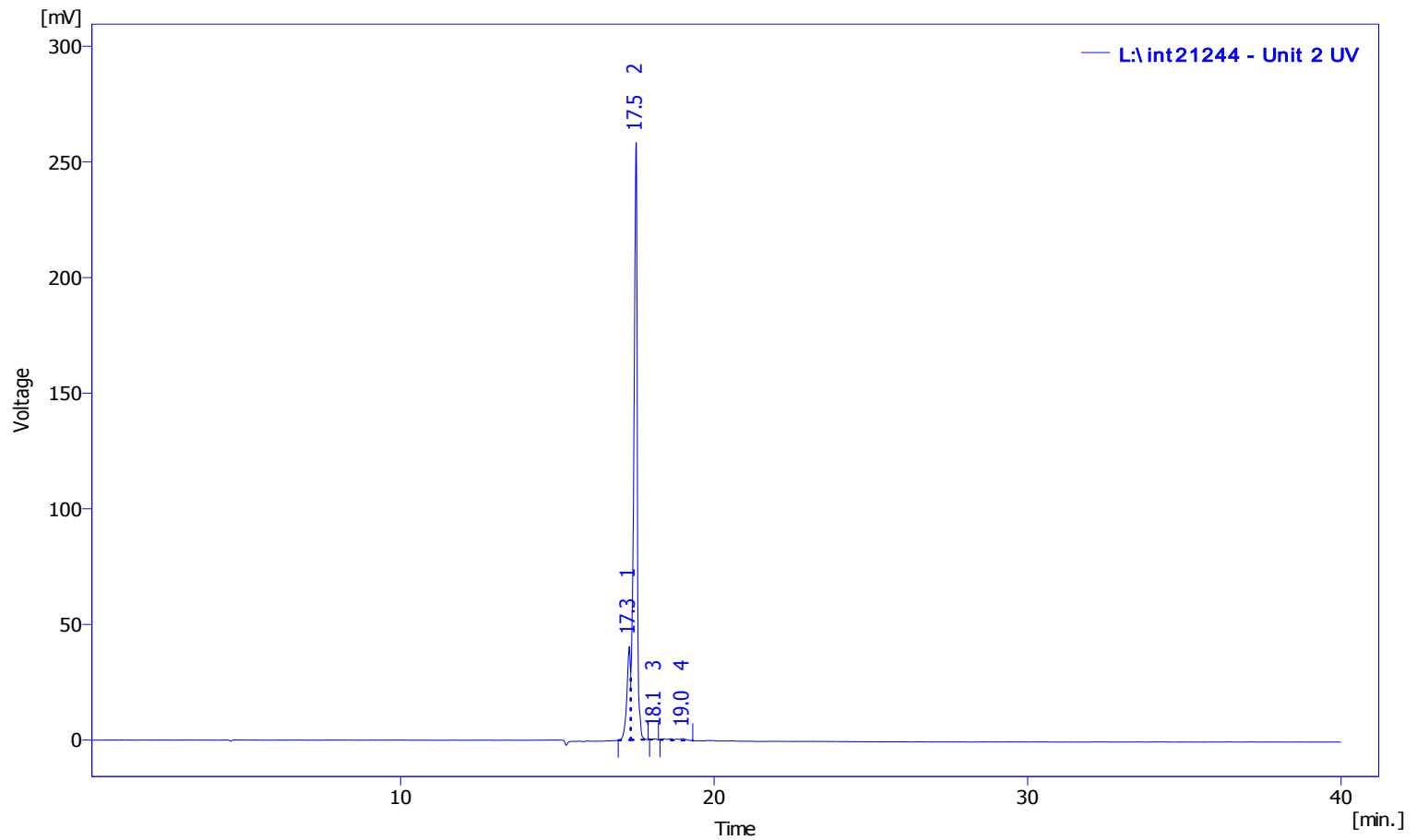
Result Table (Uncal - L:\int21244 - Unit 2 Radio)

	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		3.68	120.020	5.07	0.71	0.64	833.61	16672.20	1.12		
2		17.76	16736.190	781.70	98.34	98.33	25859.02	517180.33	1.84		29.7
3		19.22	82.627	4.08	0.49	0.51	41016.52	820330.35	2.71		3.5
4		20.08	79.908	4.12	0.47	0.52	32223.28	644465.51	1.08		2.1
		Total	17018.744	794.97	100.00	100.00					

MT-907H
Tetracycline, [7-3H(N)]-
Lot 217-012-0171-A-20110411-TN

Chromatogram Info:

File Name	: L:\int21244	File Created	: 3/20/2014 9:32:34 AM
Origin	: Acquired, Acquisition started 7/27/2011 12:05:00 PM	Acquired Date	: 7/27/2011 12:44:59 PM
Project	: Test	By	: Administrator
Method	: Unit2-40minrun	By	: Administrator
Description	: UV trace of 3H material co-injected with standard	Modified	: 3/20/2014 10:46 AM
Created	: 6/16/2007 8:19 AM	Detection	: UV 374nm
Column	:	Temperature	:
Mobile Phase	:	Pressure	:
Flow Rate	:	Note	: Impurities came from standard material.



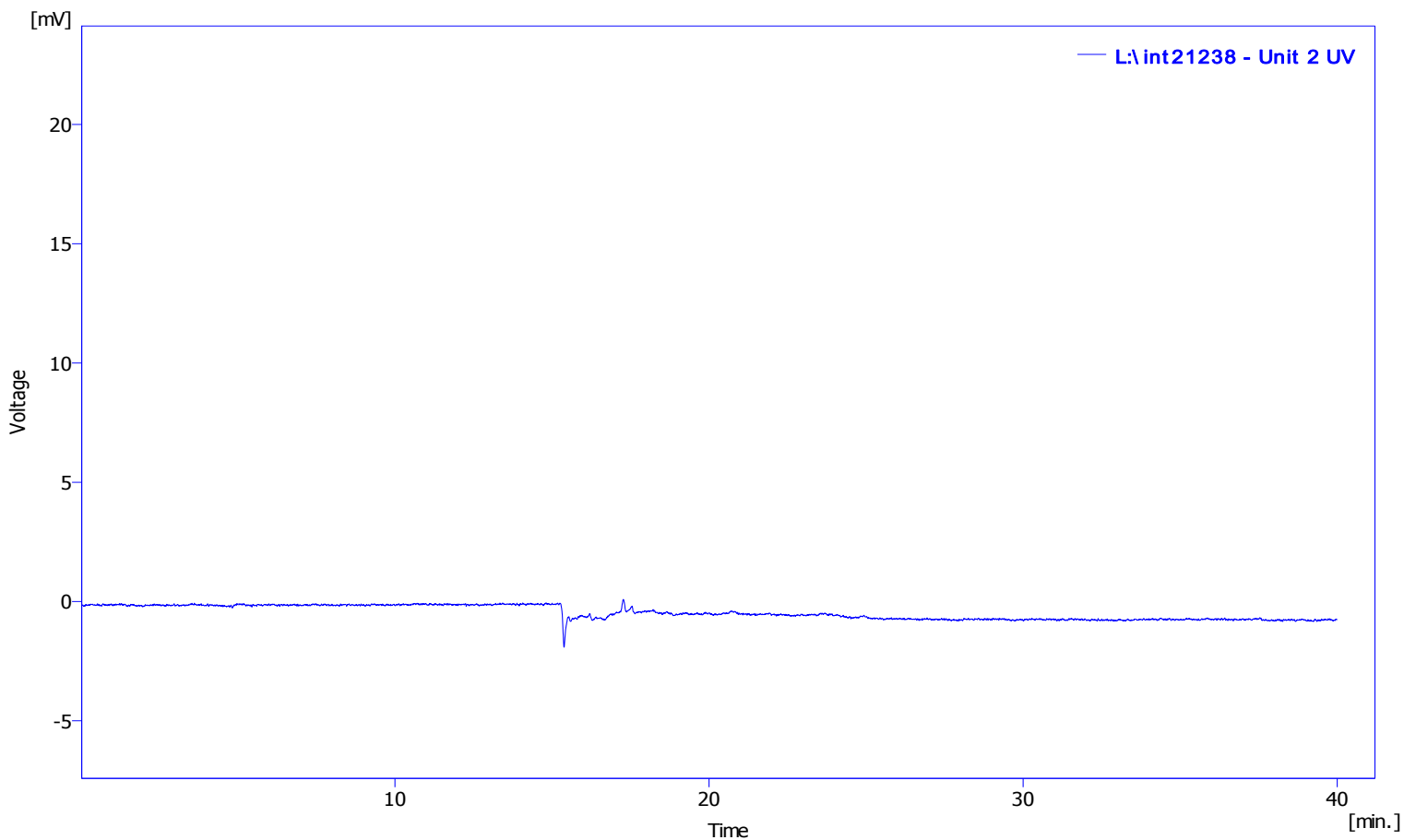
Result Table (Uncal - L:\int21244 - Unit 2 UV)

	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		17.29	306.889	40.40	13.38	13.47	108919.65	2178393.07	0.61		
2		17.51	1959.821	258.27	85.46	86.11	132291.54	2645830.77	0.81		1.1
3		18.11	3.250	0.42	0.14	0.14	77309.59	1546191.80	0.83		2.7
4		19.01	23.315	0.83	1.02	0.28	17663.38	353267.56	0.67		2.2
		Total	2293.276	299.92	100.00	100.00					

MT-907H
Tetracycline, [7-3H(N)]-
Lot 217-012-0171-A-20110411-TN

Chromatogram Info:

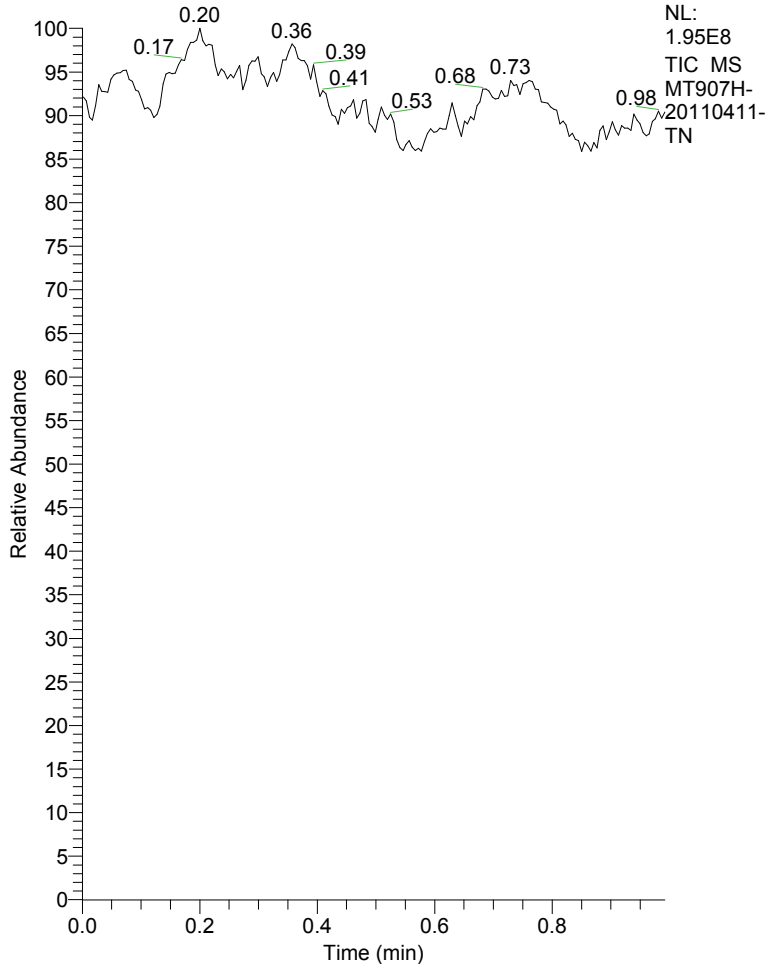
File Name	: L:\int21238	File Created	: 3/20/2014 9:32:35 AM
Origin	: Acquired, Acquisition started 7/26/2011 12:03:06 PM	Acquired Date	: 7/26/2011 12:43:05 PM
Project	: Test	By	: Administrator
Method	: Unit2-40minrun	By	: Administrator
Description	: UV trace of blank injection	Modified	: 3/20/2014 10:48 AM
Created	: 6/16/2007 8:19 AM		
Column	:	Detection	: UV 374nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int21238 - 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 - 0.99



NL:
1.95E8
TIC MS
MT907H-
20110411-
TN

MT907H-20110411-TN#1-190 RT: 0.00-0.99

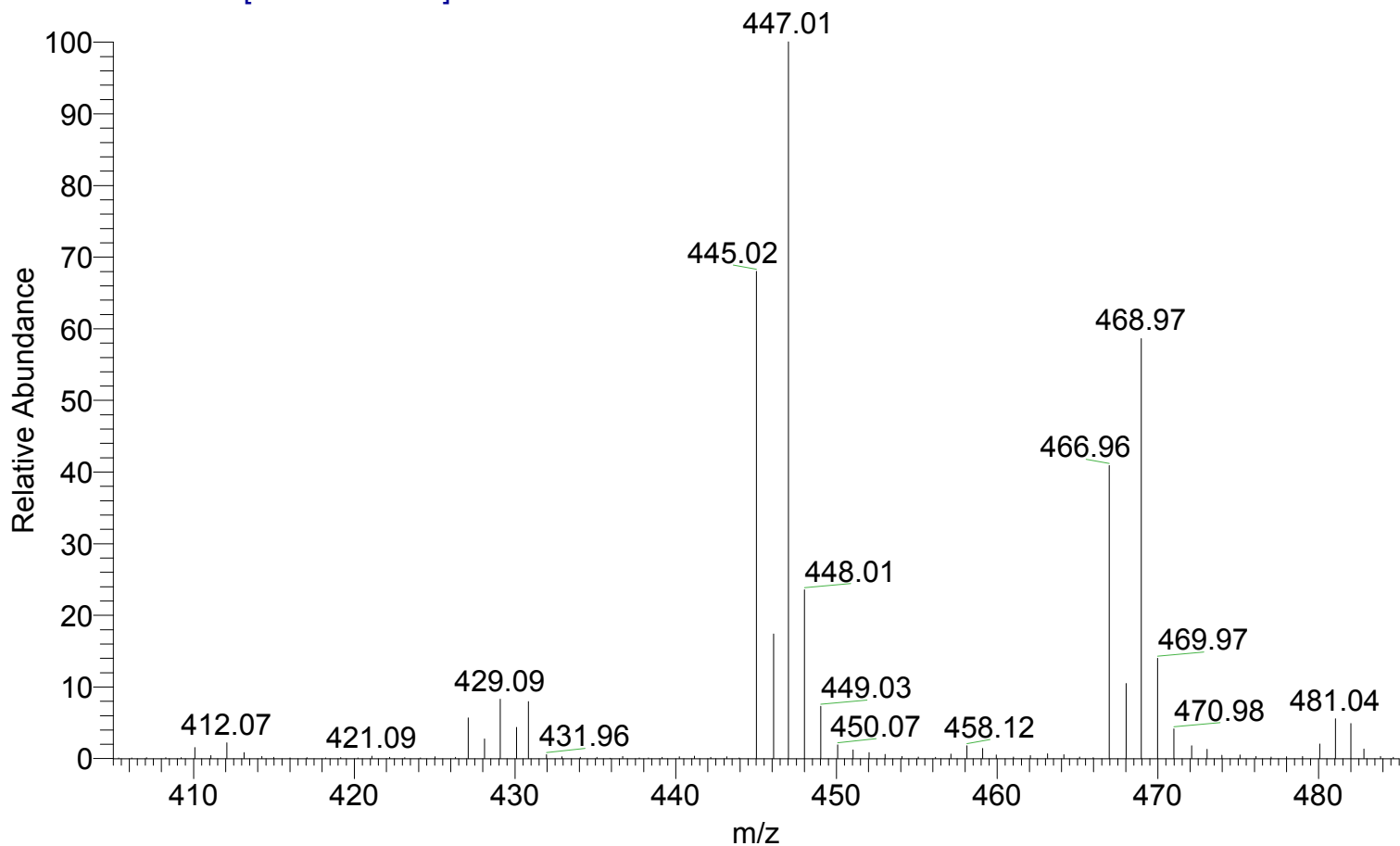
T: + c NSI Full ms [405.00-485.00]

m/z = 441.85-459.48

m/z	Intensity	Relative
443.96	32692.1	0.08
445.02	29506341.7	68.00
446.08	7531863.8	17.36
447.01	43394302.9	100.00
448.01	10217459.8	23.55
449.03	3149738.7	7.26
450.07	809327.4	1.87
451.03	513336.5	1.18
452.02	344626.2	0.79
453.03	240565.6	0.55
454.08	107902.1	0.25
455.09	81656.0	0.19
456.16	61760.1	0.14
457.13	254963.1	0.59
458.12	758036.5	1.75
459.10	607971.6	1.40

MT907H-20110411-TN #1-190 RT: 0.00-0.99 AV: 190 NL: 4.34E7

T: + c NSI Full ms [405.00-485.00]



MT907H 3H NMR in MeOD
Batch 20110411-TN



BRUKER

7.242
7.216
7.191

NAME MT907H-20110411-TN
EXPNO 2
PROCNO 1
Date_ 20110728
Time_ 15.45
INSTRUM spect
PROBHD 5 mm DUX 3H-1H
PULPROG zg
TD 16384
SOLVENT MeOD
NS 4283
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

