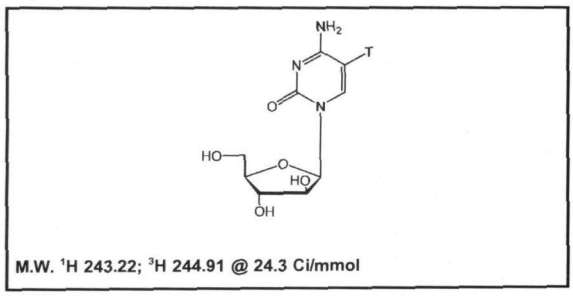
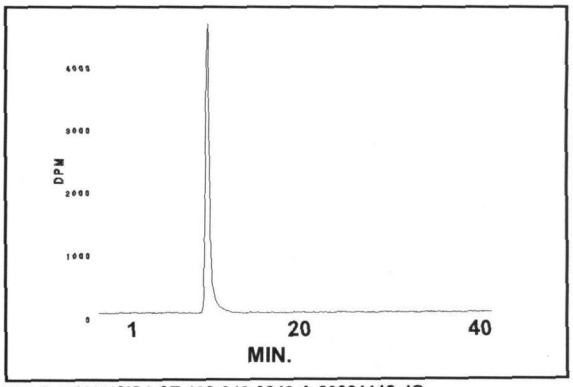
Product Data Sheet

MT-631

Cytosine-ß-D-arabinofuranoside, [5-^{3}H(N)]-



M.W. ^{1}H 243.22; ^{3}H 244.91 @ 24.3 Ci/mmol



HPLC ANALYSIS LOT 190-042-0243-A-20091118-JG
File Name: int20518 Date and Time: 5/24/2010 12:42:29 P
Unit 2 Radio

Peak #	Area %	Time	Area
1	99.51	11.12000	13476.48223
2	0.26	12.52670	35.30575
3	0.15	13.20670	20.96400
4	0.07	13.83000	9.57794
Totals	100.00		13542.32992

Lot #: 190-042-0243-A-20091118-JG

Specific Activity: 24.3 Ci/mmol

Concentration: 1.0 mCi/ml; 10.08 µg/ml

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

Date of Analysis: May 24, 2010

Radiochemical Purity: 99.5%

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.

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MT-631

Cytosine ß-D-arabinofuranoside, [5-^{3}H]-

Lot 190-042-0243-A-20091118-JG

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.

Cytosine ß-D-arabinofuranoside, [5-^{3}H]- concentration was 0.1 mCi/ml.

Volume of standard alone injection was 2.0 µl.

Volume of **Cytosine ß-D-arabinofuranoside, [5-^{3}H]-** alone injection was 2.0 µl.

Co-injection solution consisted of 2.0 µl **Cytosine ß-D-arabinofuranoside, [5-^{3}H]-** + 2.0 µl standard.

Volume of co-injection was 4.0 µl.

Volume of blank injection was 2.0 µl.

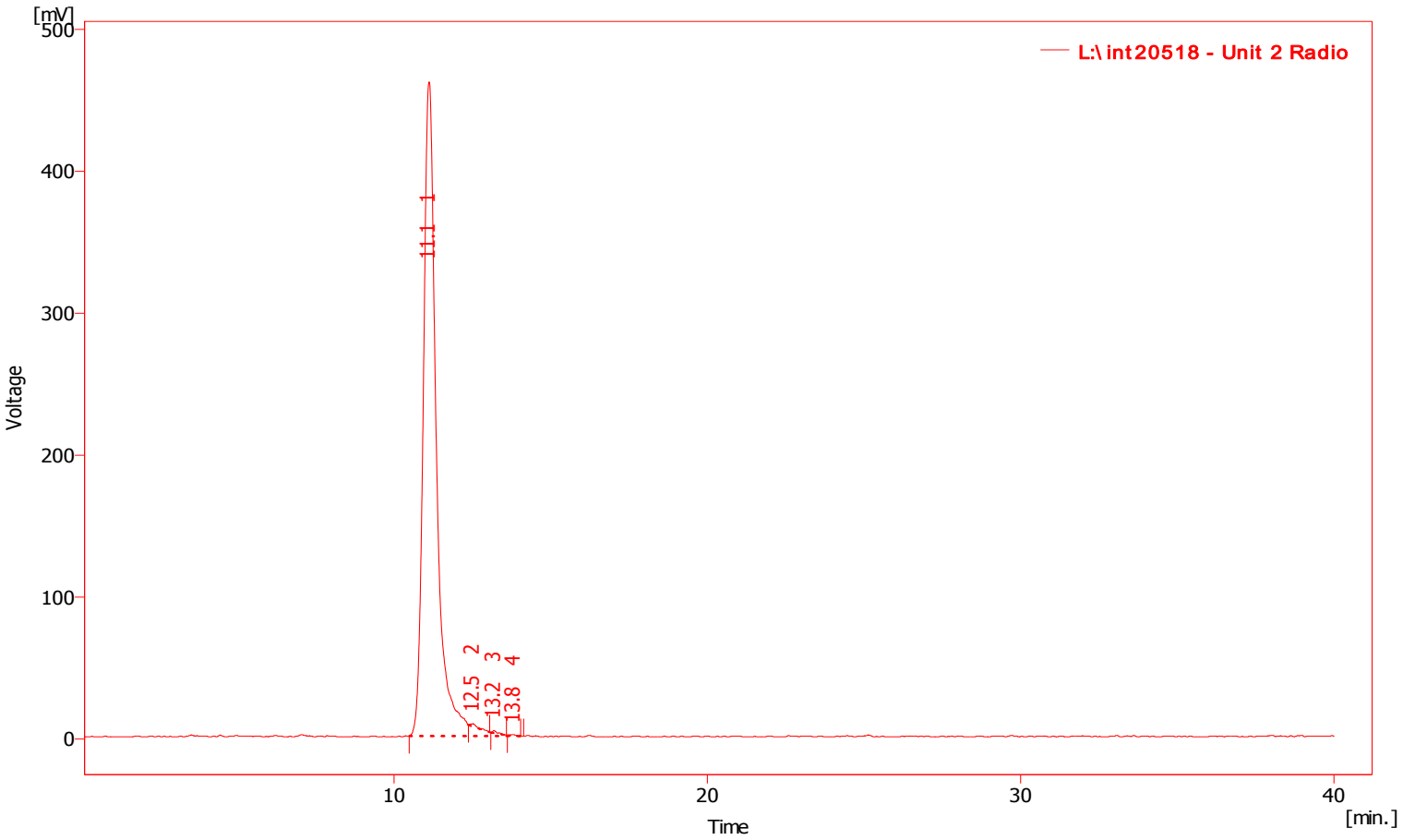
B) Mass spectrometry – Positvie mode

C) NMR

MT-631
Cytosine ß-D-arabinofuranoside, [5-3H]-
Lot 190-042-0243-A-20091118-JG

Chromatogram Info:

File Name	: L:\int20518	File Created	: 2/26/2014 1:38:29 PM
Origin	: Acquired, Acquisition started 5/24/2010 12:02:31 PM	Acquired Date	: 5/24/2010 12:42:29 PM
Project	: Test	By	: Administrator
Method	: Unit2-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material alone		
Created	: 6/16/2007 8:19 AM	Modified	: 2/26/2014 2:06 PM
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int20518 - Unit 2 Radio)

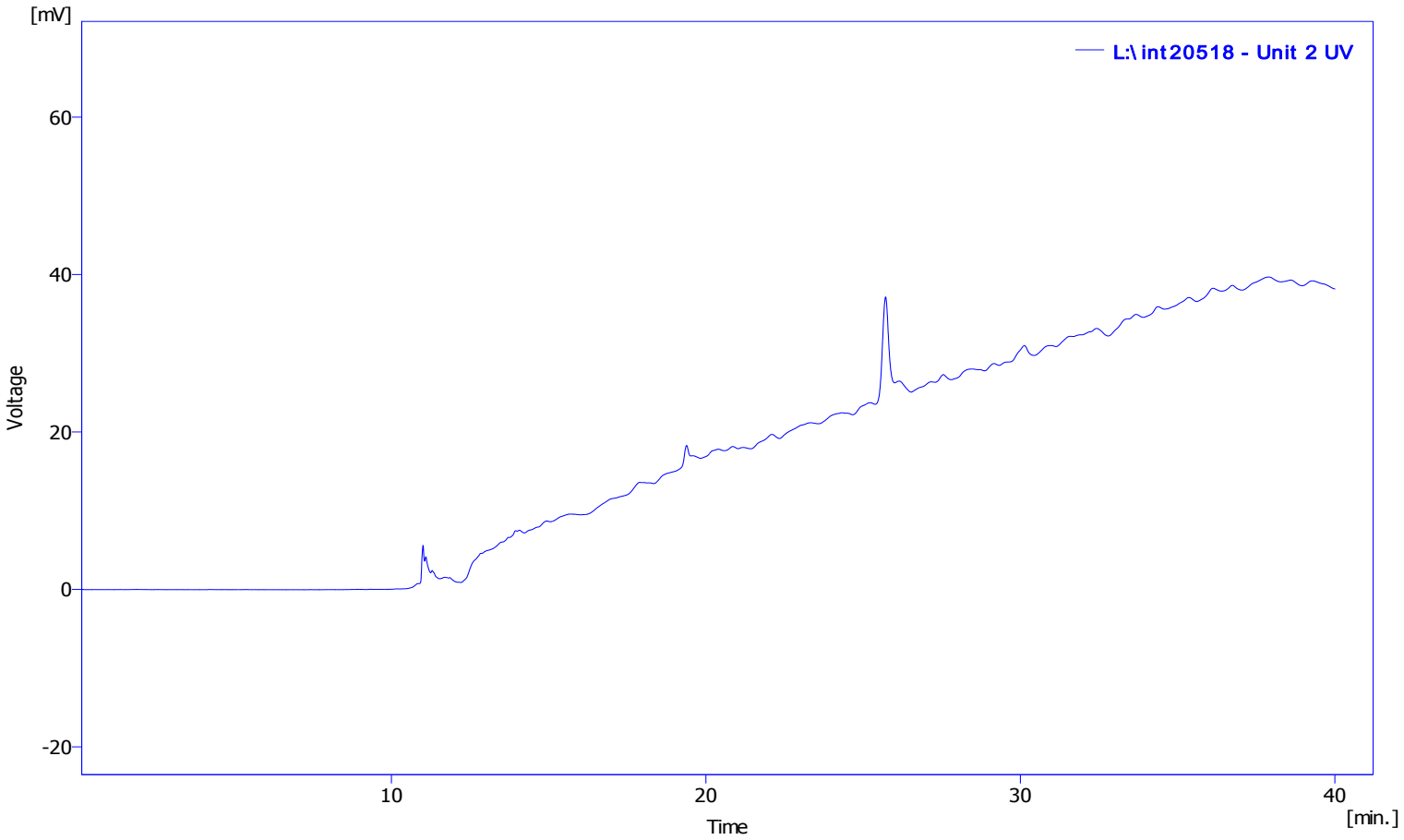
	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/l [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
1		11.12	13476.482	460.96	99.51	98.94	4281.53	85630.67	2.86		
2		12.53	35.306	2.29	0.26	0.49	19101.32	382026.39	2.15		2.7
3		13.21	20.964	1.89	0.15	0.41	63523.62	1270472.46	2.30		2.4
4		13.83	9.578	0.75	0.07	0.16	31526.17	630523.46	1.00		2.4
		Total	13542.330	465.89	100.00	100.00					

MT-631
Cytosine ß-D-arabinofuranoside, [5-3H]-
Lot 190-042-0243-A-20091118-JG

Chromatogram Info:

File Name	: L:\int20518	File Created	: 2/26/2014 1:38:29 PM
Origin	: Acquired, Acquisition started 5/24/2010 12:02:31 PM	Acquired Date	: 5/24/2010 12:42:29 PM
Project	: Test	By	: Administrator

Method	: Unit2-40minrun	By	: Administrator
Description	: UV trace of 3H material alone		
Created	: 6/16/2007 8:19 AM	Modified	: 2/26/2014 2:08 PM
Column	:	Detection	: UV 271nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



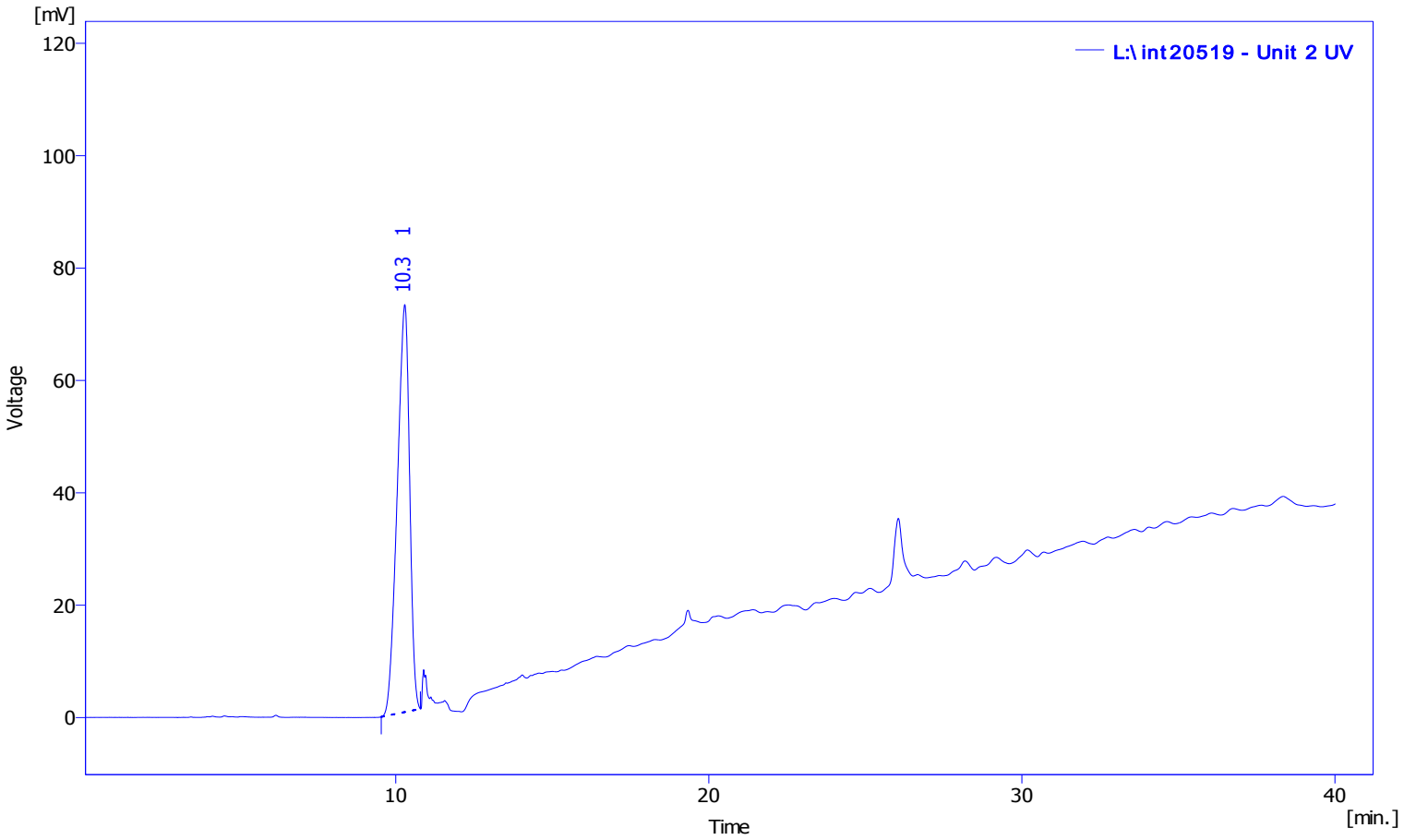
Result Table (Uncal - L:\int20518 - Unit 2 UV)

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										

MT-631
Cytosine ß-D-arabinofuranoside, [5-3H]-
Lot 190-042-0243-A-20091118-JG

Chromatogram Info:

File Name	: L:\int20519	File Created	: 2/26/2014 1:38:29 PM
Origin	: Acquired, Acquisition started 5/24/2010 1:10:19 PM	Acquired Date	: 5/24/2010 1:50:18 PM
Project	: Test	By	: Administrator
Method	: Unit2-40minrun	By	: Administrator
Description	: UV trace of standard material alone		
Created	: 6/16/2007 8:19 AM	Modified	: 2/26/2014 2:09 PM
Column	:	Detection	: UV 271nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



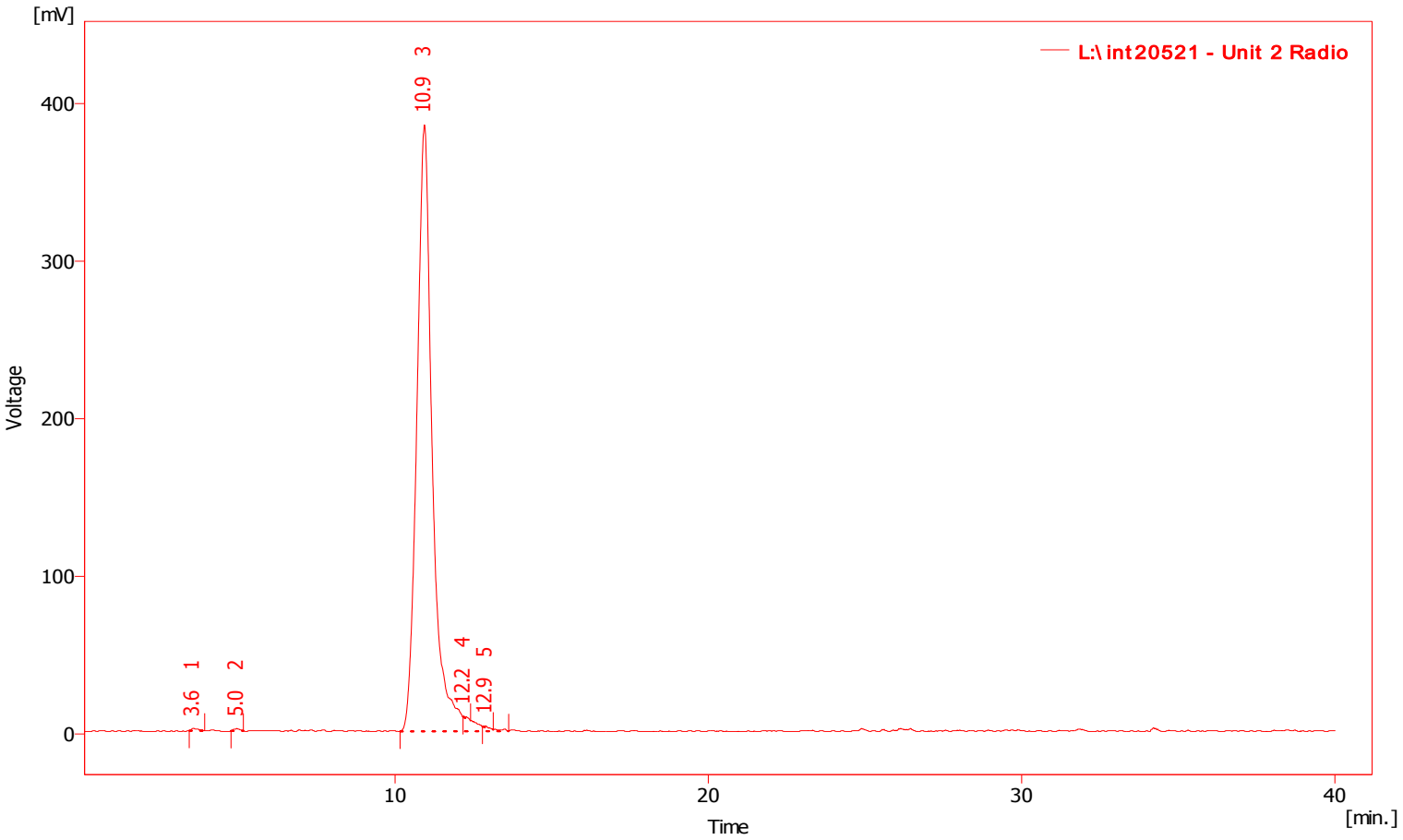
Result Table (Uncal - L:\int20519 - Unit 2 UV)

	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		10.29	1991.621	72.53	100.00	100.00	3121.87	62437.41	0.84		
		Total	1991.621	72.53	100.00	100.00					

MT-631
Cytosine ß-D-arabinofuranoside, [5-3H]-
Lot 190-042-0243-A-20091118-JG

Chromatogram Info:

File Name	: L:\int20521	File Created	: 2/26/2014 1:38:28 PM
Origin	: Acquired, Acquisition started 5/24/2010 3:46:53 PM	Acquired Date	: 5/24/2010 4:26:52 PM
Project	: Test	By	: Administrator
Method	: Unit2-40minrun	By	: Administrator
Description	: Radiochemical trace of 3H material co-injected with standard		
Created	: 6/16/2007 8:19 AM	Modified	: 2/26/2014 2:11 PM
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int20521 - Unit 2 Radio)

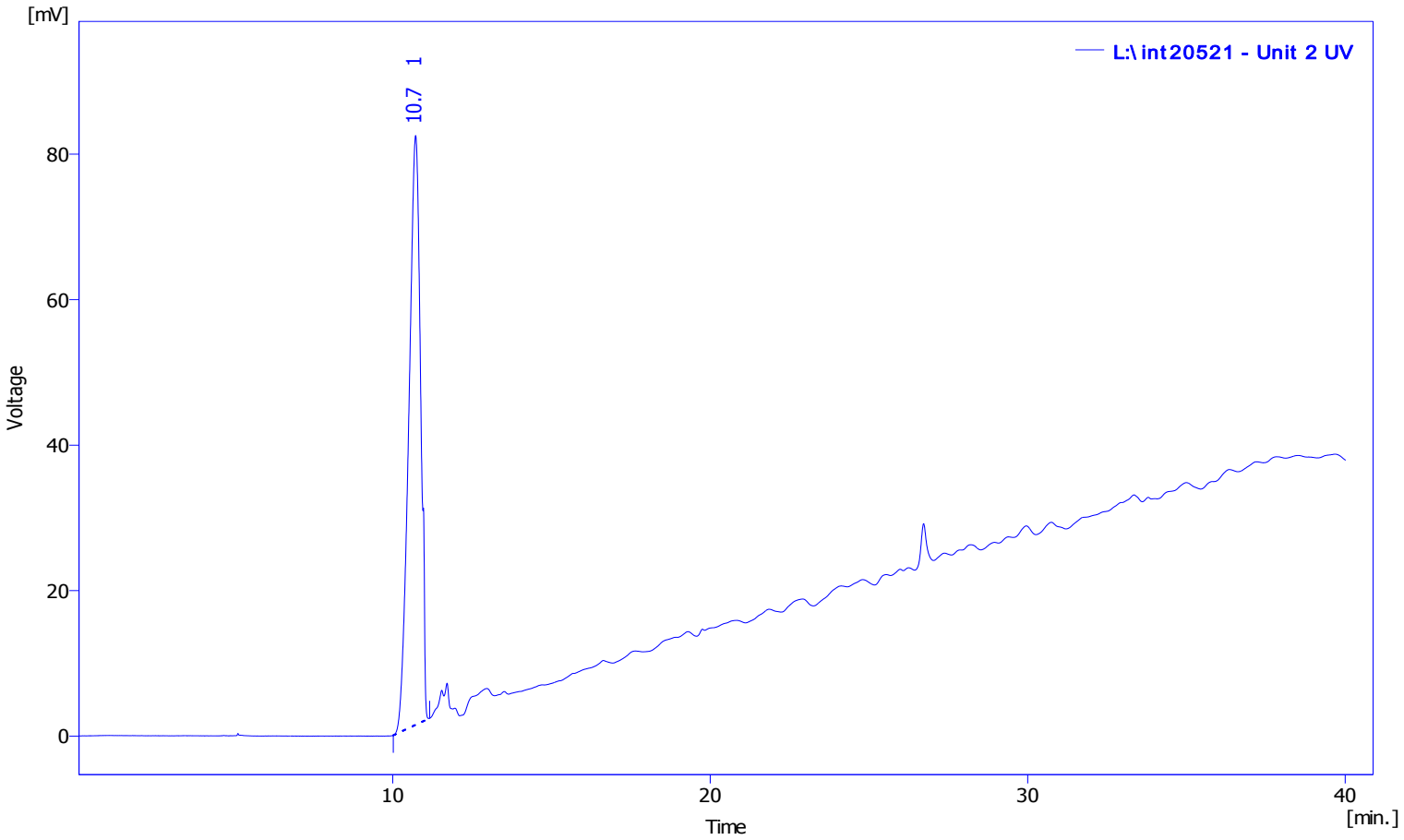
	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/l [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
1		3.56	21.996	1.53	0.16	0.39	1255.88	25117.62	1.77		
2		4.96	17.444	1.48	0.13	0.38	3090.54	61810.82	0.94		3.7
3		10.94	13385.315	384.91	99.55	98.71	2799.50	55990.09	2.22		10.1
4		12.20	11.433	0.93	0.09	0.24	378423.86	7568477.22	4.25		2.8
5		12.90	10.129	1.09	0.08	0.28	44850.81	897016.25	1.58		4.3
		Total	13446.318	389.94	100.00	100.00					

MT-631
Cytosine ß-D-arabinofuranoside, [5-3H]-
Lot 190-042-0243-A-20091118-JG

Chromatogram Info:

File Name	: L:\int20521	File Created	: 2/26/2014 1:38:28 PM
Origin	: Acquired, Acquisition started 5/24/2010 3:46:53 PM	Acquired Date	: 5/24/2010 4:26:52 PM
Project	: Test	By	: Administrator

Method	: Unit2-40minrun	By	: Administrator
Description	: UV trace of 3H material co-injected with standard		
Created	: 6/16/2007 8:19 AM	Modified	: 2/26/2014 2:12 PM
Column	:	Detection	: UV 271nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int20521 - Unit 2 UV)

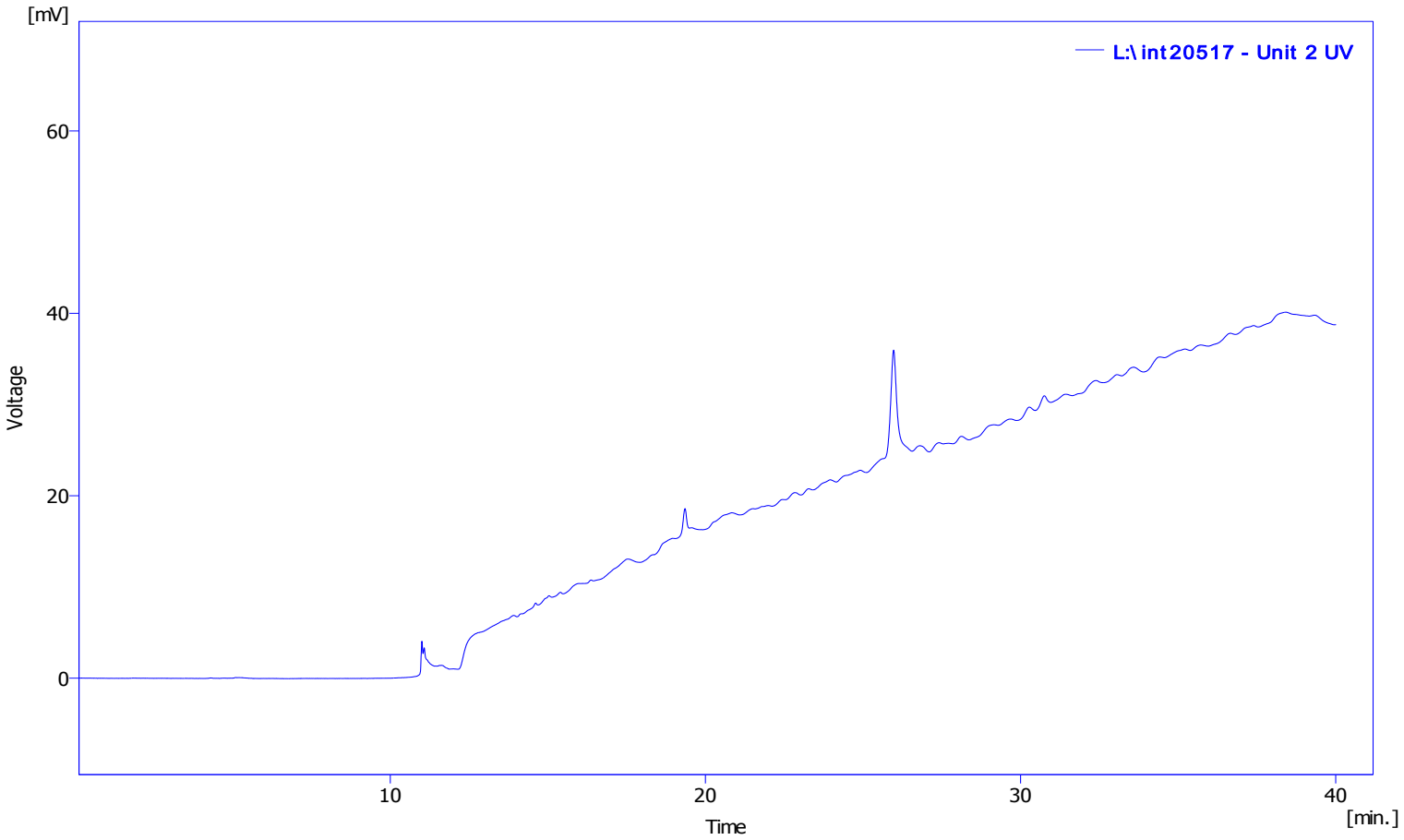
	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/l [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
1		10.72	2080.026	81.01	100.00	100.00	3915.99	78319.72	0.82		
		Total	2080.026	81.01	100.00	100.00					

MT-631
Cytosine ß-D-arabinofuranoside, [5-3H]-
Lot 190-042-0243-A-20091118-JG

Chromatogram Info:

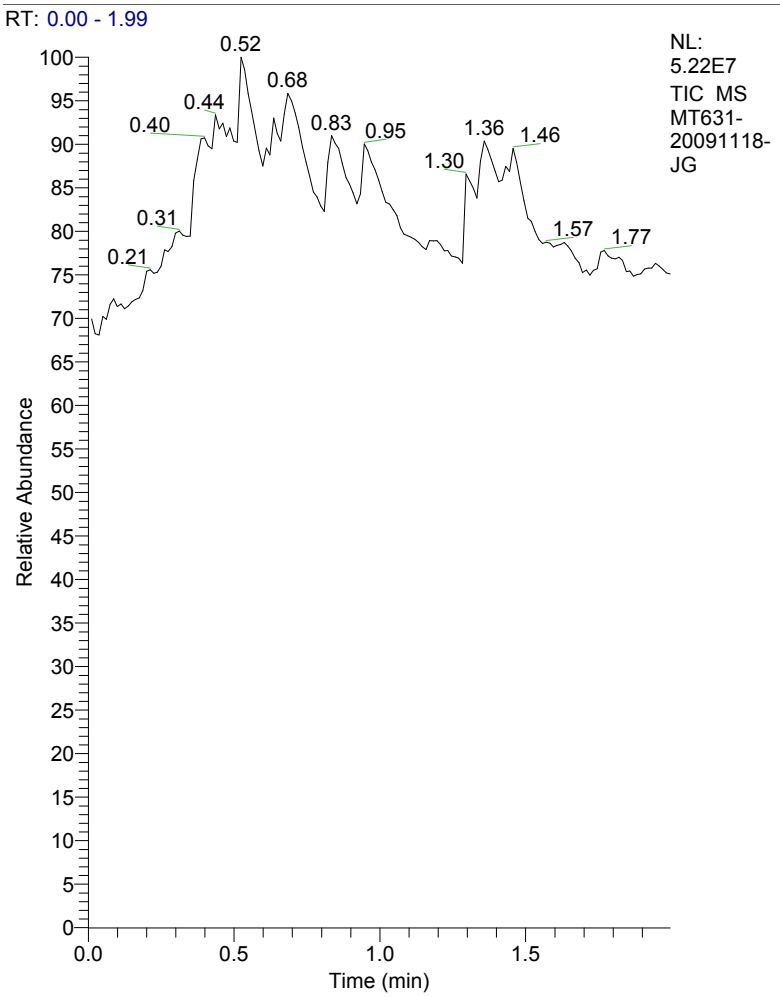
File Name	: L:\int20517	File Created	: 2/26/2014 1:38:29 PM
Origin	: Acquired, Acquisition started 5/24/2010 10:55:36 AM	Acquired Date	: 5/24/2010 11:35:34 AM
Project	: Test	By	: Administrator

Method	: Unit2-40minrun	By	: Administrator
Description	: UV trace of blank injection		
Created	: 6/16/2007 8:19 AM	Modified	: 2/26/2014 2:12 PM
Column	:	Detection	: UV 271nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



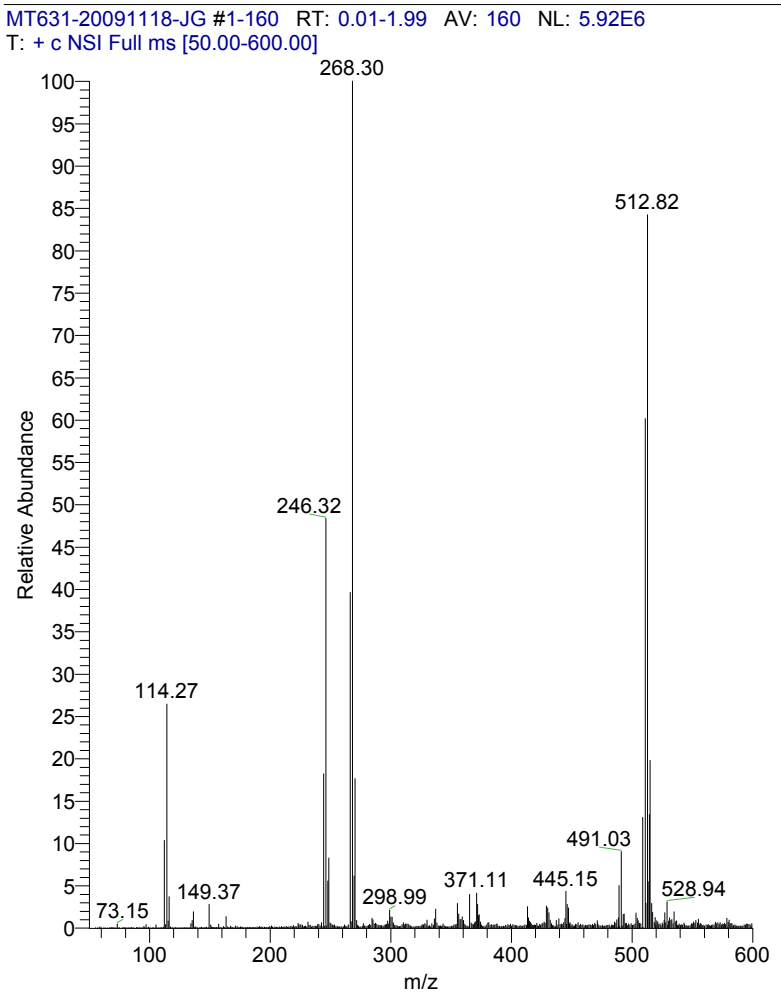
Result Table (Uncal - L:\int20517 - Unit 2 UV)

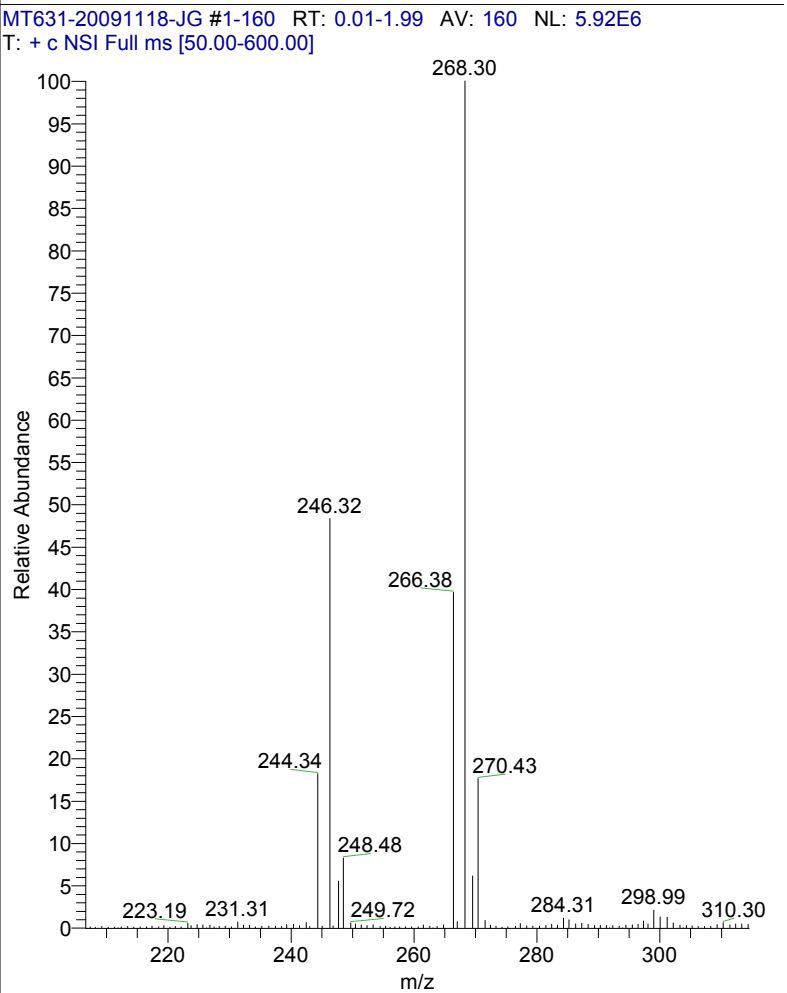
Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]	Eff/l [t.p./m]	Symmetry/Tailing [-]	Response Factor	Resolution [-]
No peak to report										



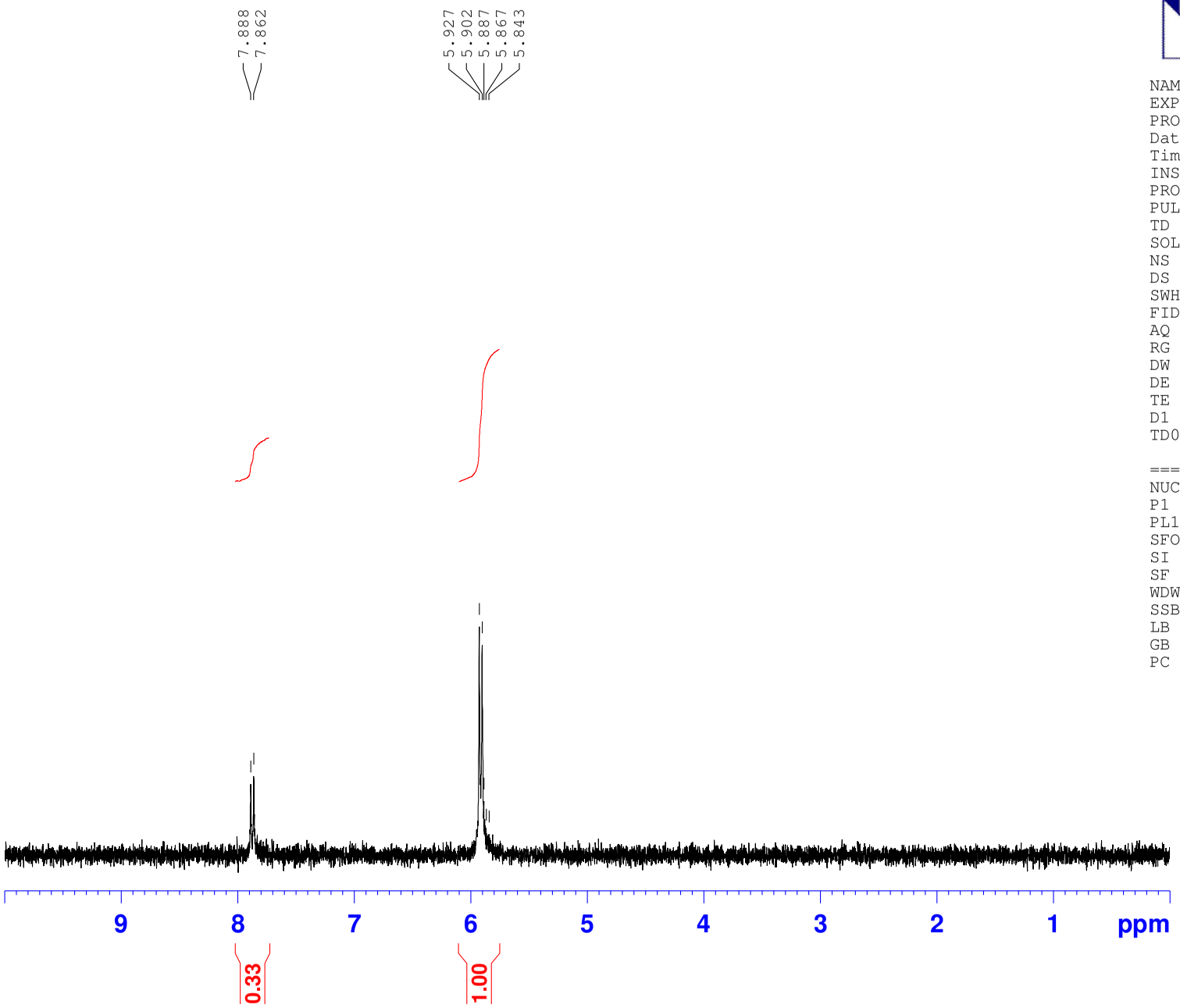
MT631-20091118-JG#1-160 RT: 0.01-1.99 AV:
T: + c NSI Full ms [50.00-600.00]
m/z= 233.42-286.08

m/z	Intensity	Relative
242.47	36694.7	0.62
244.34	1077120.1	18.20
246.32	2860629.8	48.34
247.74	327116.3	5.53
248.48	489610.2	8.27
249.72	35588.2	0.60
250.47	28948.2	0.49
261.49	21971.1	0.37
266.38	2344010.5	39.61
267.05	43172.6	0.73
268.30	5917898.6	100.00
269.55	363400.1	6.14
270.43	1042232.2	17.61
271.57	52095.5	0.88
277.29	29792.3	0.50
282.41	25353.1	0.43
284.31	68951.7	1.17
285.20	57274.3	0.97





MT631 3H NMR in MeOD
Batch 20091118-JG



NAME	MT631	
EXPNO	1	
PROCNO	1	
Date_	20091130	
Time	16.14	
INSTRUM	spect	
PROBHD	5 mm DUX 3H-1H	
PULPROG	zg	
TD	16384	
SOLVENT	MeOD	
NS	4645	
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	