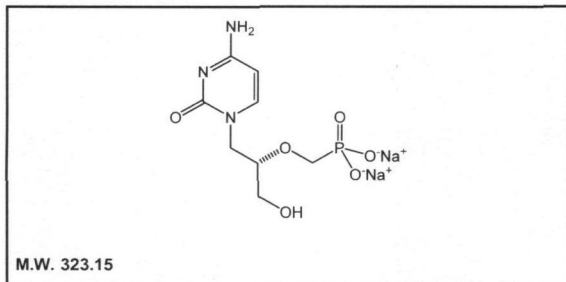




Product Data Sheet

M-833

(S)-1-[3-Hydroxy-2-(phosphonylmethoxy)propyl]-cytosine

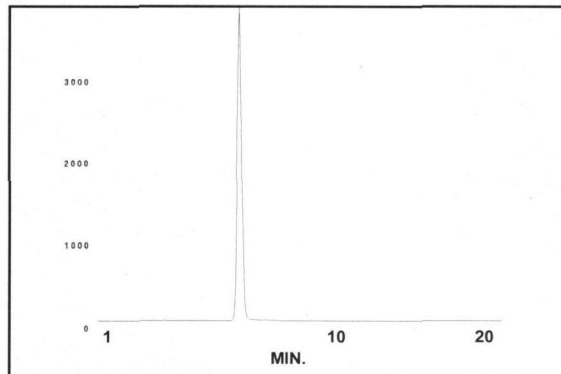


Lot #: 208-153-000-A-20011002-Q

Packaged as: Solid

Date of Analysis: December 5, 2013

Chemical Purity @ 279nm: 99.6%



HPLC ANALYSIS LOT 208-153-000-A-20011002-Q

File Name: int12645 Date and Time: 12/5/2013 8:33:16 AM
Unit 1 UV

Peak #	Area %	Time	Area
1	0.05	2.76330	2.65053
2	0.09	3.33670	5.29554
3	0.02	4.89330	1.07074
4	0.02	5.17330	0.91652
5	99.60	7.02670	5771.09053
6	0.23	8.36000	13.49561
Totals	100.00		5794.51947

Stability and Storage Recommendation: The rate of decomposition is approximately 0.1%/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.

M-833

(S)-1-[3-Hydroxy-2-(phosphonylmethoxy)propyl]-cytosine

Lot 208-153-000-A-20011002-Q

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

Concentrations and volumes:

(S)-1-[3-Hydroxy-2-(phosphonylmethoxy)propyl]-cytosine solution concentration was 0.8 mg/ml.

Volume of **(S)-1-[3-Hydroxy-2-(phosphonylmethoxy)propyl]-cytosine** injection was 1.0 μ l.

Volume of blank injection was 1.0 μ l.

B) Mass spectrometry - Positive mode

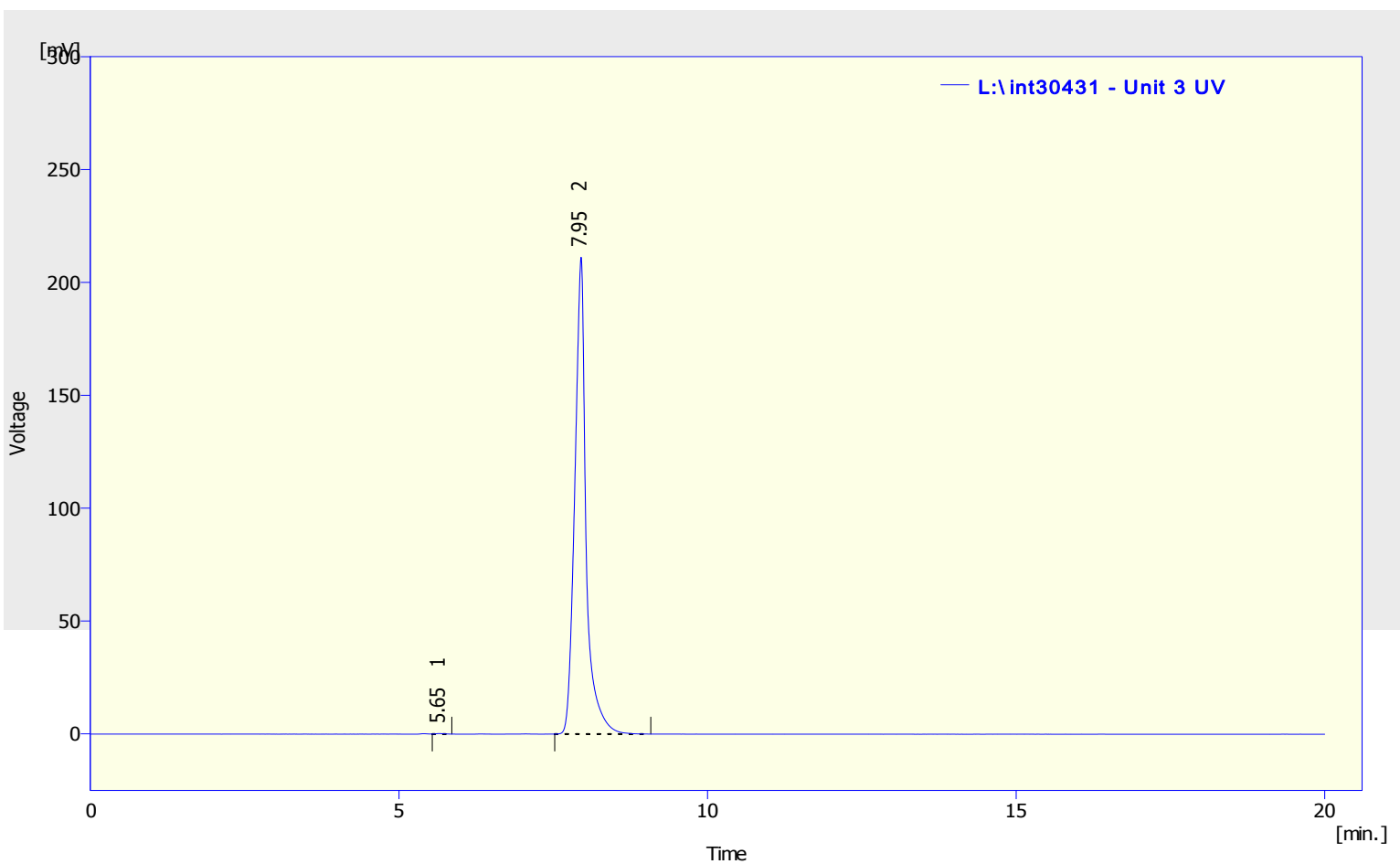
C) NMR

D) UV Spectrum

M-833
(S)-1-[3-Hydroxy-2-(phosphonyl-methoxy)propyl]-cytosine
Lot 208-153-000-A-20011002-Q

Chromatogram Info:

File Name	: L:\int30431	File Created	: 8/10/2009 3:41:45 PM
Origin	: Acquired	Acquired Date	: 8/10/2009 3:41:04 PM
Project	: Test	By	: Administrator
Method	: unit3-20minrun	By	: Administrator
Description	: UV trace of (S)-1-[3-Hydroxy-2-(phosphonyl-methoxy)propyl]-cytosine		
Created	: 6/26/2007 10:29 AM	Modified	: 8/11/2009 12:49 PM
Column	:	Detection	: UV 279nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



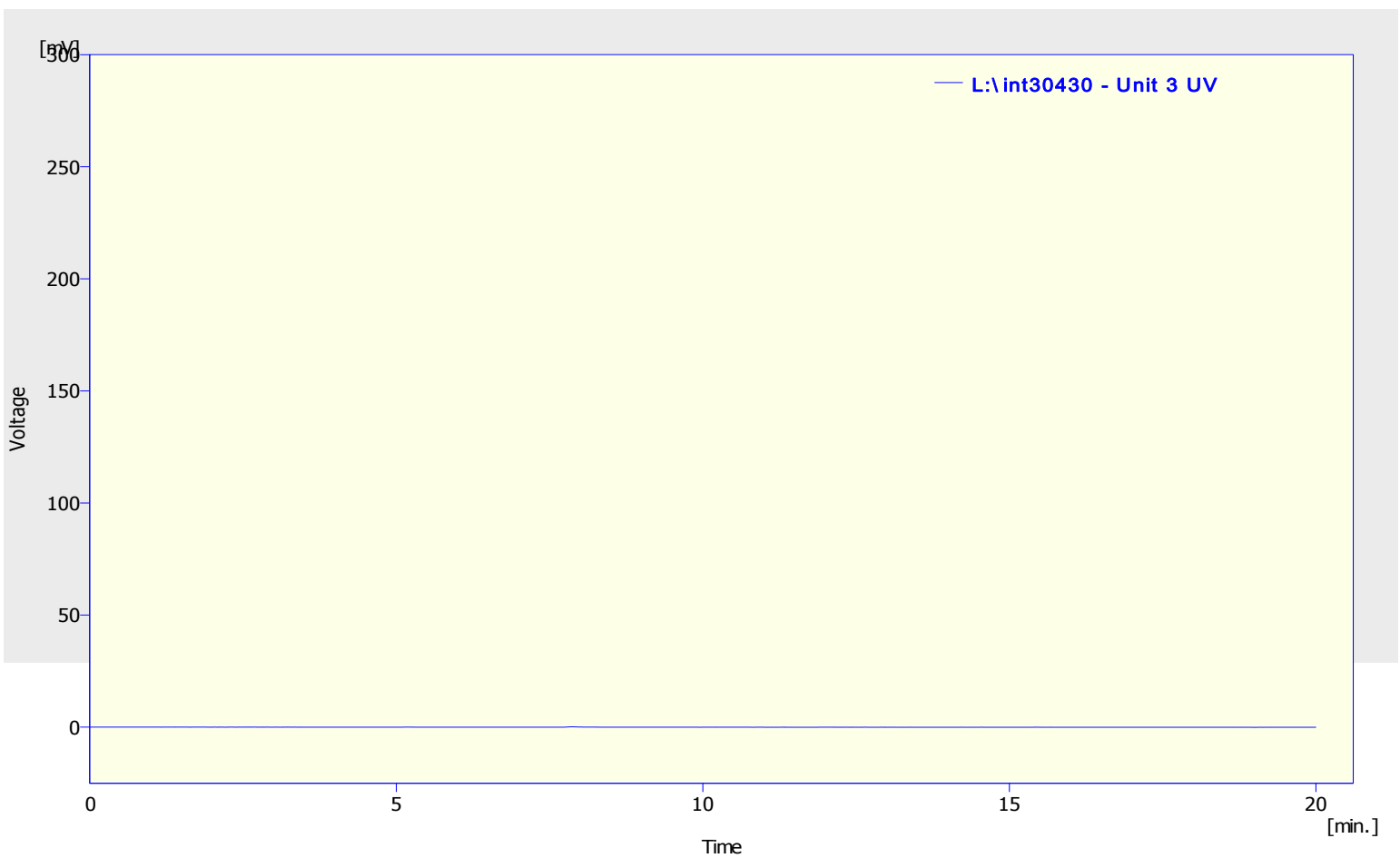
Result Table (Uncal - L:\int30431 - Unit 3 UV)

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	5.653	1.880	0.233	0.07	0.1	0.13
2	7.950	2694.473	211.215	99.93	99.9	0.18
	Total	2696.353	211.447	100.00	100.0	

M-833
(S)-1-[3-Hydroxy-2-(phosphonyl-methoxy)propyl]-cytosine
Lot 208-153-000-A-20011002-Q

Chromatogram Info:

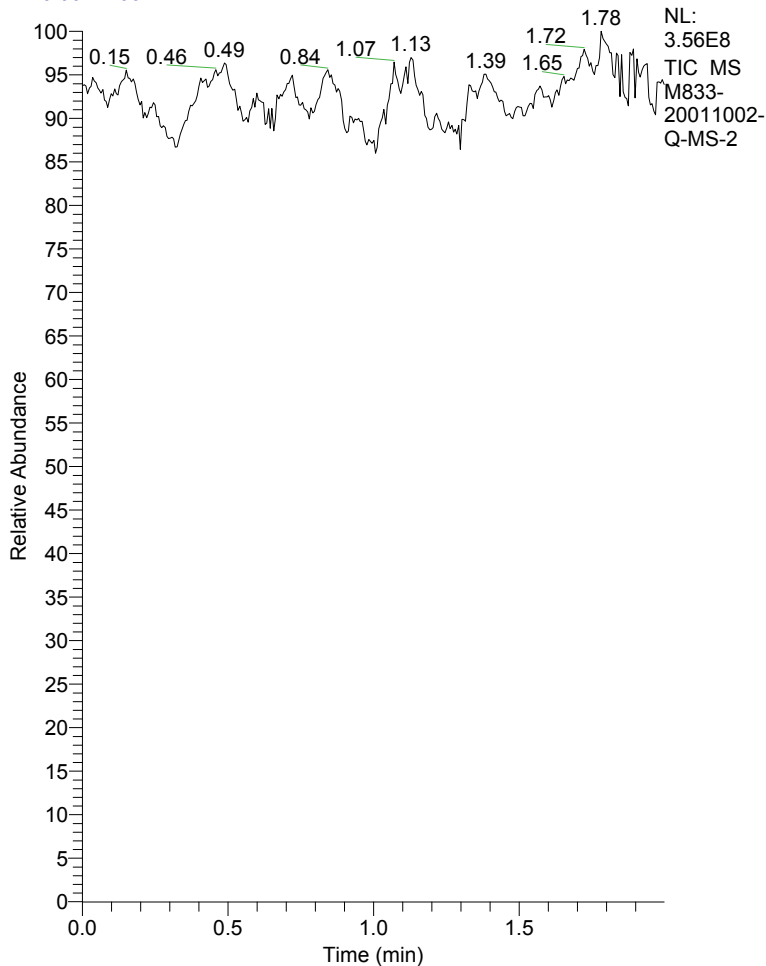
File Name	: L:\int30430	File Created	: 8/10/2009 3:13:07 PM
Origin	: Acquired	Acquired Date	: 8/10/2009 3:12:33 PM
Project	: Test	By	: Administrator
Method	: unit3-20minrun	By	: Administrator
Description	: UV trace of blank injection	Modified	: 8/11/2009 12:53 PM
Created	: 6/26/2007 10:29 AM		
Column	:	Detection	: UV 279nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\int30430 - Unit 3 UV)

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

RT: 0.00 - 2.00



M833-20011002-Q-MS-2#1-344 RT: 0.00-2.00

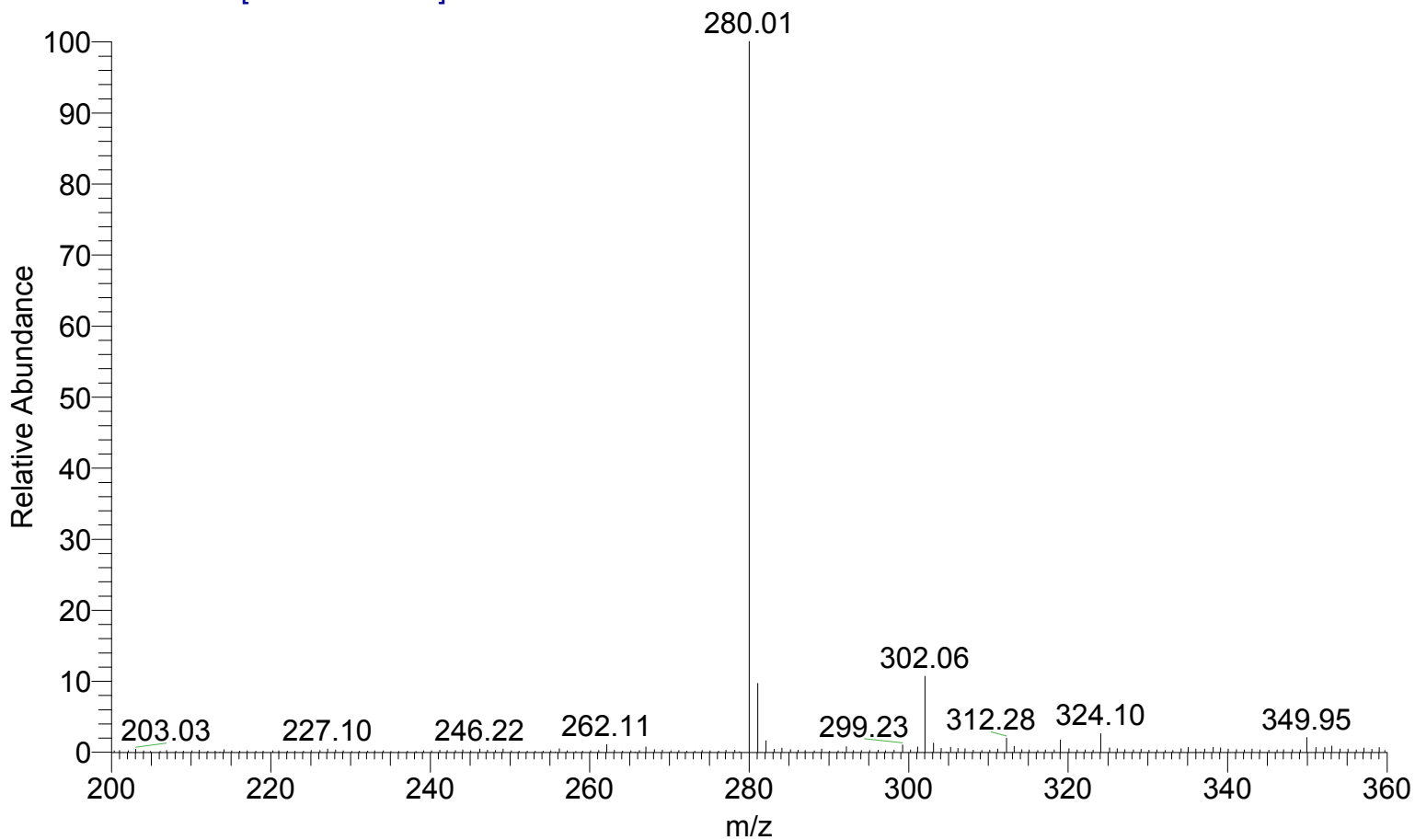
T: + c NSI Full ms [200.00-360.00]

m/z = 273.13-310.67

m/z	Intensity	Relative
278.19	529641.8	0.29
280.01	184418902.7	100.00
281.08	17819370.9	9.66
282.11	2915871.4	1.58
283.15	750291.1	0.41
284.12	1050374.8	0.57
285.16	656547.4	0.36
289.07	780587.5	0.42
292.19	1425848.8	0.77
299.23	1846927.5	1.00
300.24	602579.6	0.33
301.11	1365585.9	0.74
302.06	19668424.5	10.67
303.12	2298504.0	1.25
304.09	975993.7	0.53
305.26	1297381.3	0.70
306.18	940805.8	0.51
307.08	846701.0	0.46
308.10	497522.2	0.27
310.16	507647.9	0.28

M833-20011002-Q-MS-2 #1-344 RT: 0.00-2.00 AV: 344 NL: 1.84E8

T: + c NSI Full ms [200.00-360.00]



M833 1H NMR in D2O
Batch 20011002-Q

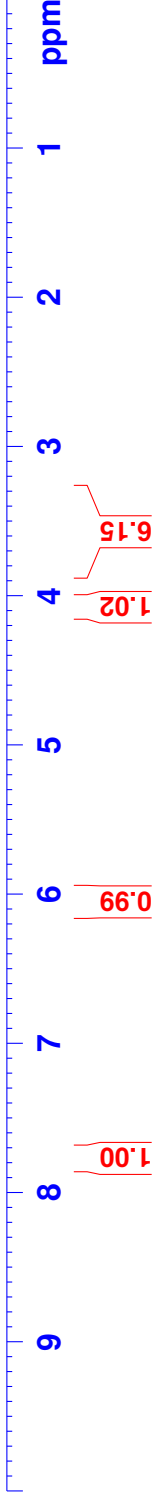
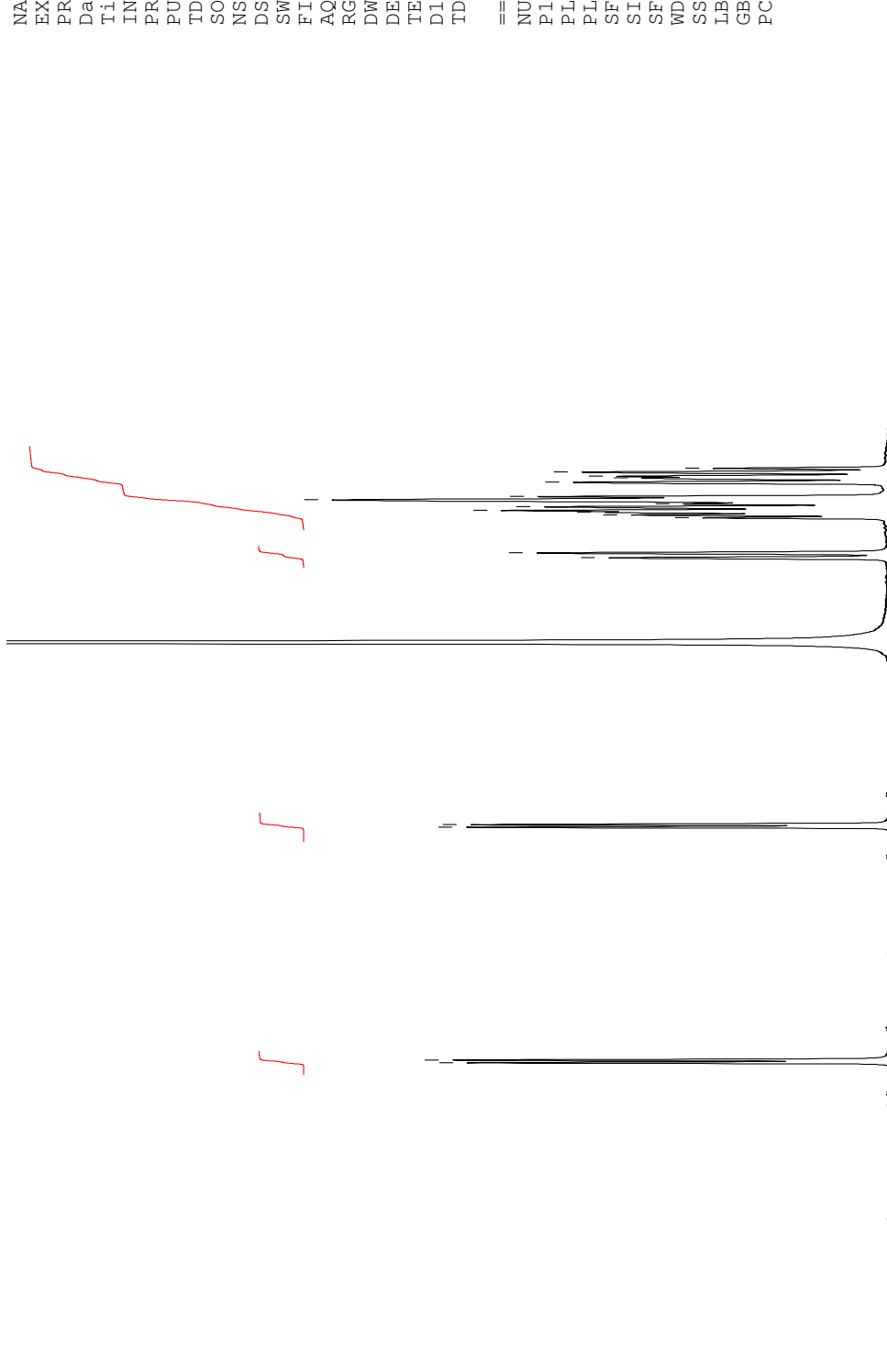


4.083
4.047
3.790
3.770
3.750
3.737
3.710
3.689
3.659
3.635
3.531
3.499
3.487
3.457
3.429

6.053
6.033

7.774
7.755

NAME M833
EXPNO 1
PROCNO 1
Date_ 20090713
Time 11.52
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT D2O
NS 256
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 362
DW 60.400 usec
DE 6.50 usec
TE 294.7 K
D1 1.00000000 sec
TD0 1
===== CHANNEL f1 =====
NUC1 1H
P1 14.50 usec
PL1 -0.70 dB
PL1W 10.03411102 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00



10/Aug/09 16:59:53

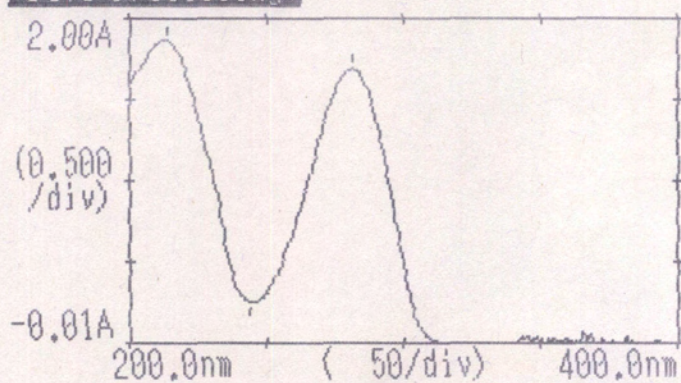
Peak detection

Abscis.	ABS	Abscis.	ABS
281.5	1.700		
213.5	1.875		

Graph PrintOut Valley

10/Aug/09 17:00:24

Data Processing



PrintOut Peak Valley