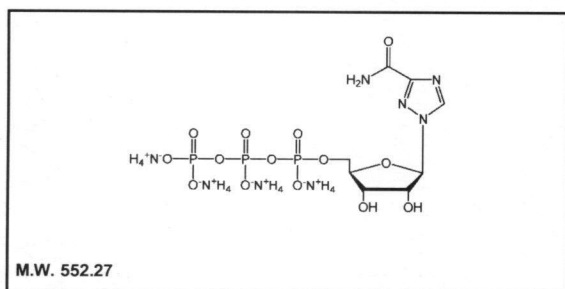




Product Data Sheet

M-1593

Ribavirin 5'-triphosphate, tetraammonium salt

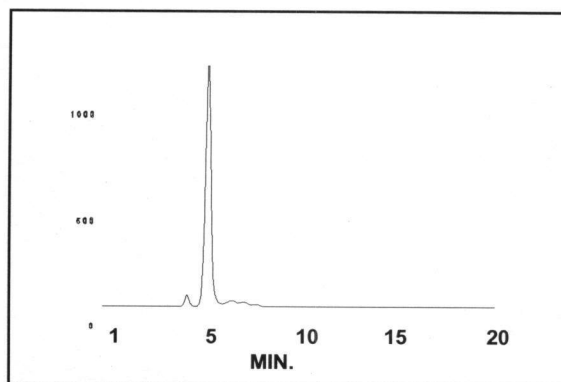


Lot #: 217-036-000-A-20110727-TNG

Packaged as: Solid

Date of Analysis: August 3, 2011

Chemical Purity @ 215nm: 92.8%



HPLC ANALYSIS LOT 217-036-000-A-20110727-TNG
File Name: int21254 Date and Time: 8/3/2011 3:55:58 PM
Unit 2 UV

Peak #	Area %	Time	Area
1	3.16	4.35670	82.09420
2	92.84	5.39000	2409.97197
3	1.98	6.58670	51.31423
4	1.56	7.21670	40.48244
5	0.46	7.79330	11.91345
Totals	100.00		2595.77629

Storage Recommendation: Store 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-1593

Ribavirin 5'-triphosphate, tetrammonium salt

Lot 217-036-000-A-20110727-TNG

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

Concentrations and volumes:

Ribavirin 5'-triphosphate, tetraammonium salt concentration was 2.0 mg/ml.

Volume of **Ribavirin 5'-triphosphate, tetraammonium salt** injection was 2.0 μ l.

Volume of blank injection was 2.0 μ l.

B) Mass spectrometry – Negative mode

C) ^1H NMR

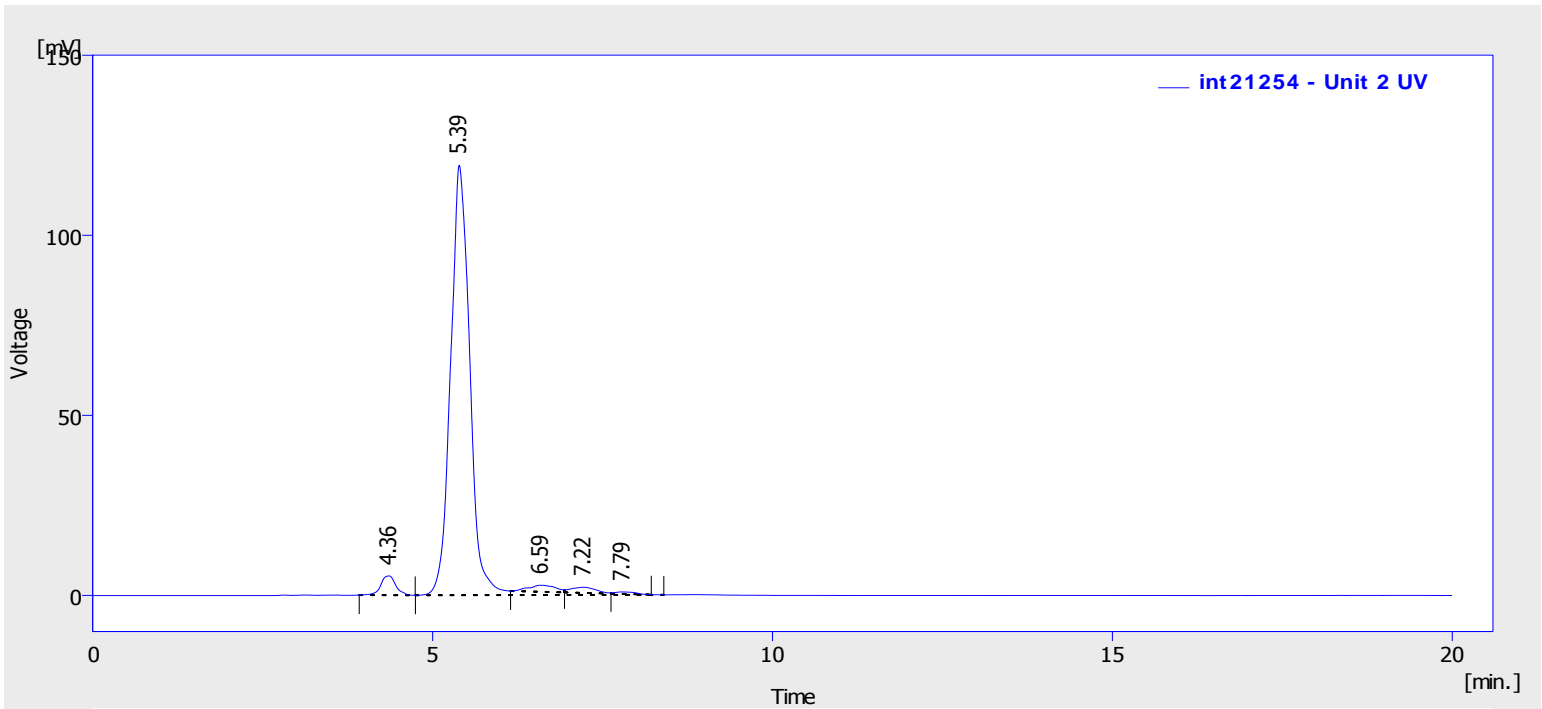
D) ^{31}P NMR

E) UV spectrum

M-1593
Ribavirin 5'-triphosphate, tetrammonium salt
Lot 217-036-000-A-20110727-TNG

Chromatogram Info:

File Name	: int21254	File Created	: 8/3/2011 3:55:58 PM
Origin	: Acquired	Acquired Date	: 8/3/2011 3:55:58 PM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of Ribavirin 5'-triphosphate, tetrammonium salt	Modified	: 8/4/2011 11:41 AM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: 215nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



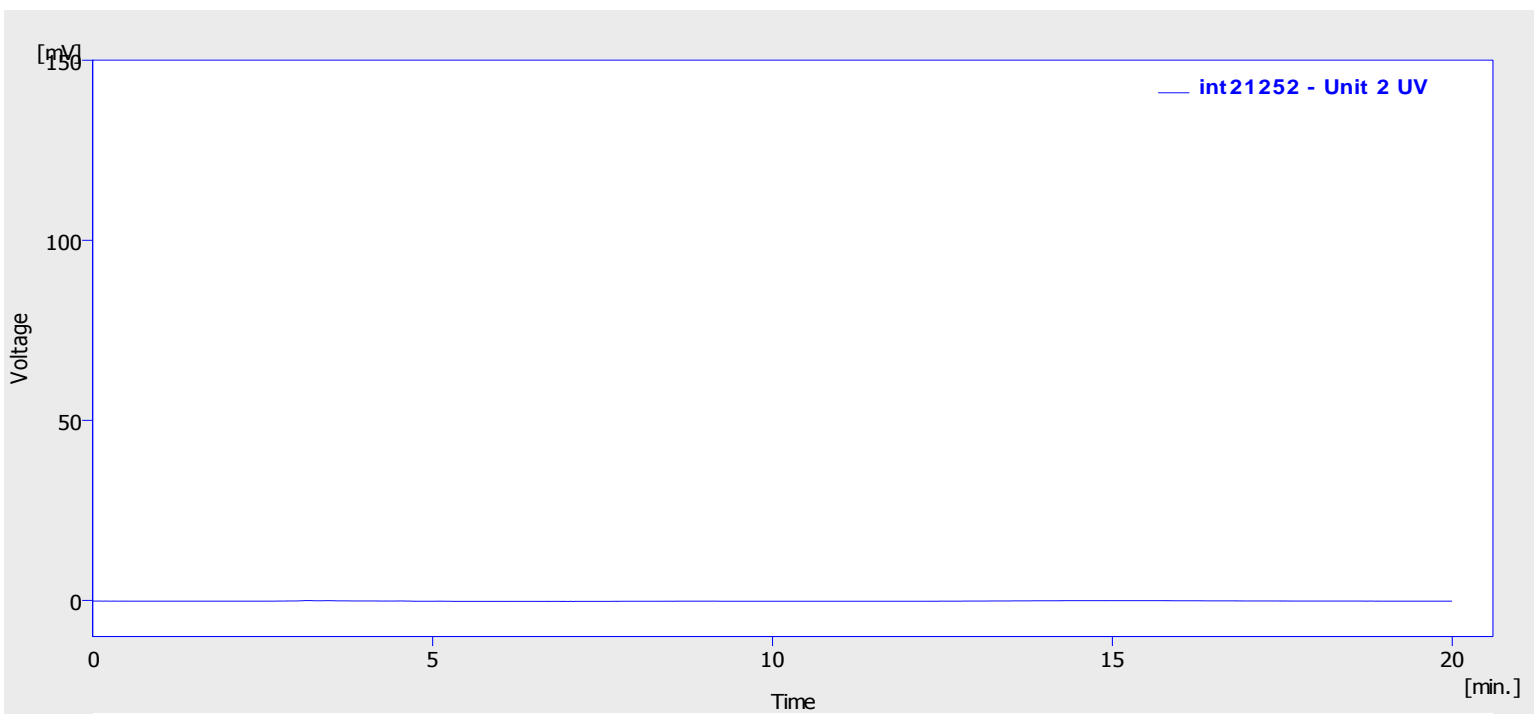
Result Table (Uncal - int21254 - Unit 2 UV)

	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]
1	4.357	82.094	5.352	3.16	4.2	0.23
2	5.390	2409.972	119.395	92.84	92.8	0.31
3	6.587	51.314	1.820	1.98	1.4	0.51
4	7.217	40.482	1.576	1.56	1.2	0.47
5	7.793	11.913	0.564	0.46	0.4	0.37
	Total	2595.776	128.708	100.00	100.0	

M-1593
Ribavirin 5'-triphosphate, tetrammonium salt
Lot 217-036-000-A-20110727-TNG

Chromatogram Info:

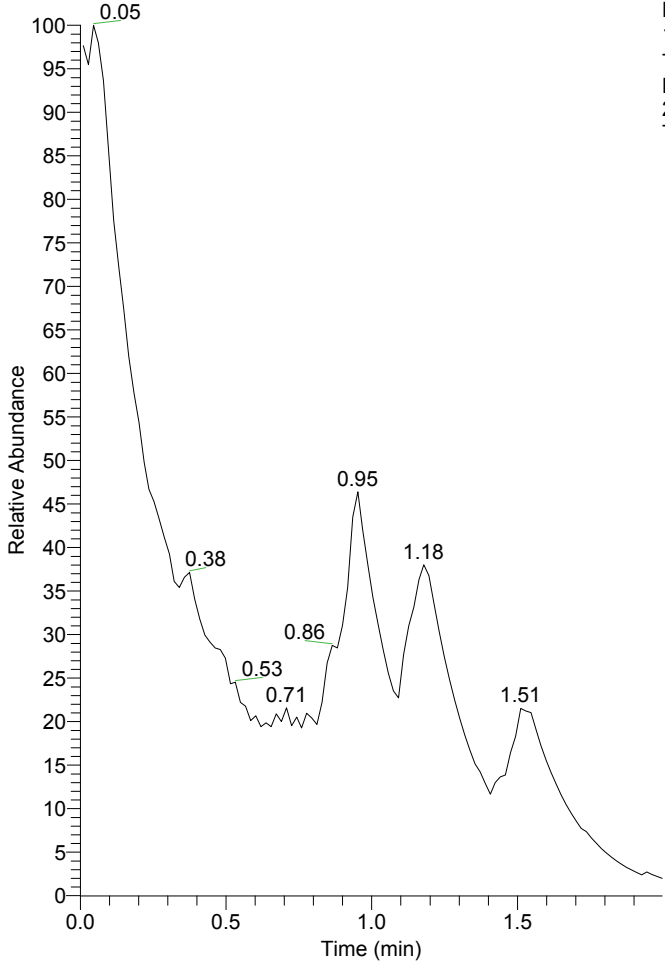
File Name	: int21252	File Created	: 8/3/2011 2:58:40 PM
Origin	: Acquired	Acquired Date	: 8/3/2011 2:58:40 PM
Project	: Test	By	: Administrator
Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of blank injection	Modified	: 8/4/2011 11:42 AM
Created	: 8/8/2007 9:12 AM		
Column	:	Detection	: 215nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - int21252 - Unit 2 UV)

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

RT: 0.00 - 2.00



NL:
1.14E5
TIC MS
M1593-
20110727-
TNG

M1593-20110727-TNG#1-6 RT: 0.01-0.10 AV:

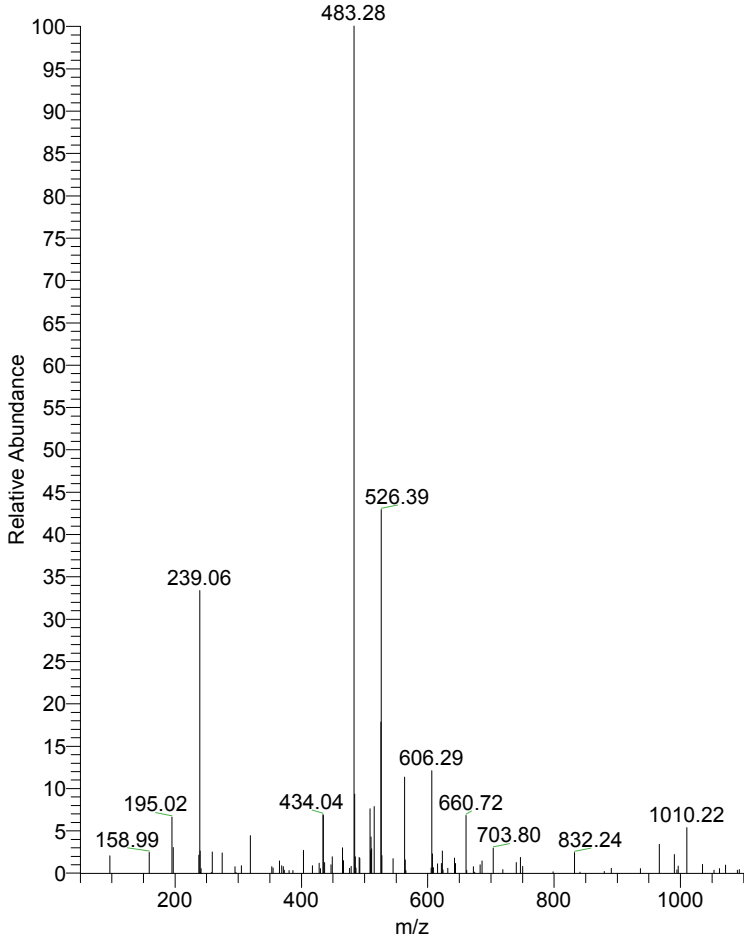
T: - c NSI Full ms [50.00-1100.00]

m/z = 479.18-491.64

m/z	Intensity	Relative
483.28	28705.8	100.00
484.12	2672.0	9.31
485.12	550.7	1.92
486.28	163.0	0.57
491.57	526.3	1.83

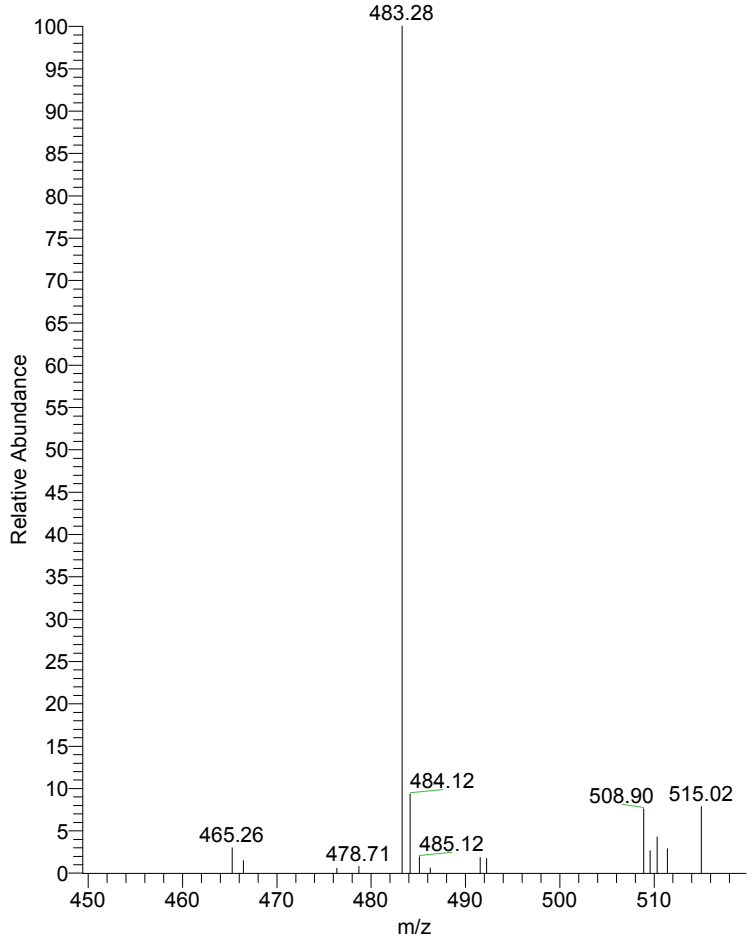
M1593-20110727-TNG #1-6 RT: 0.01-0.10 AV: 6 NL: 2.87E4

T: - c NSI Full ms [50.00-1100.00]

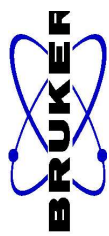
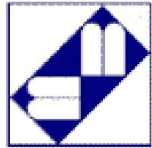


M1593-20110727-TNG #1-6 RT: 0.01-0.10 AV: 6 NL: 2.87E4

T: - c NSI Full ms [50.00-1100.00]



M1593 1H NMR in D2O
Batch 20110727-TNG

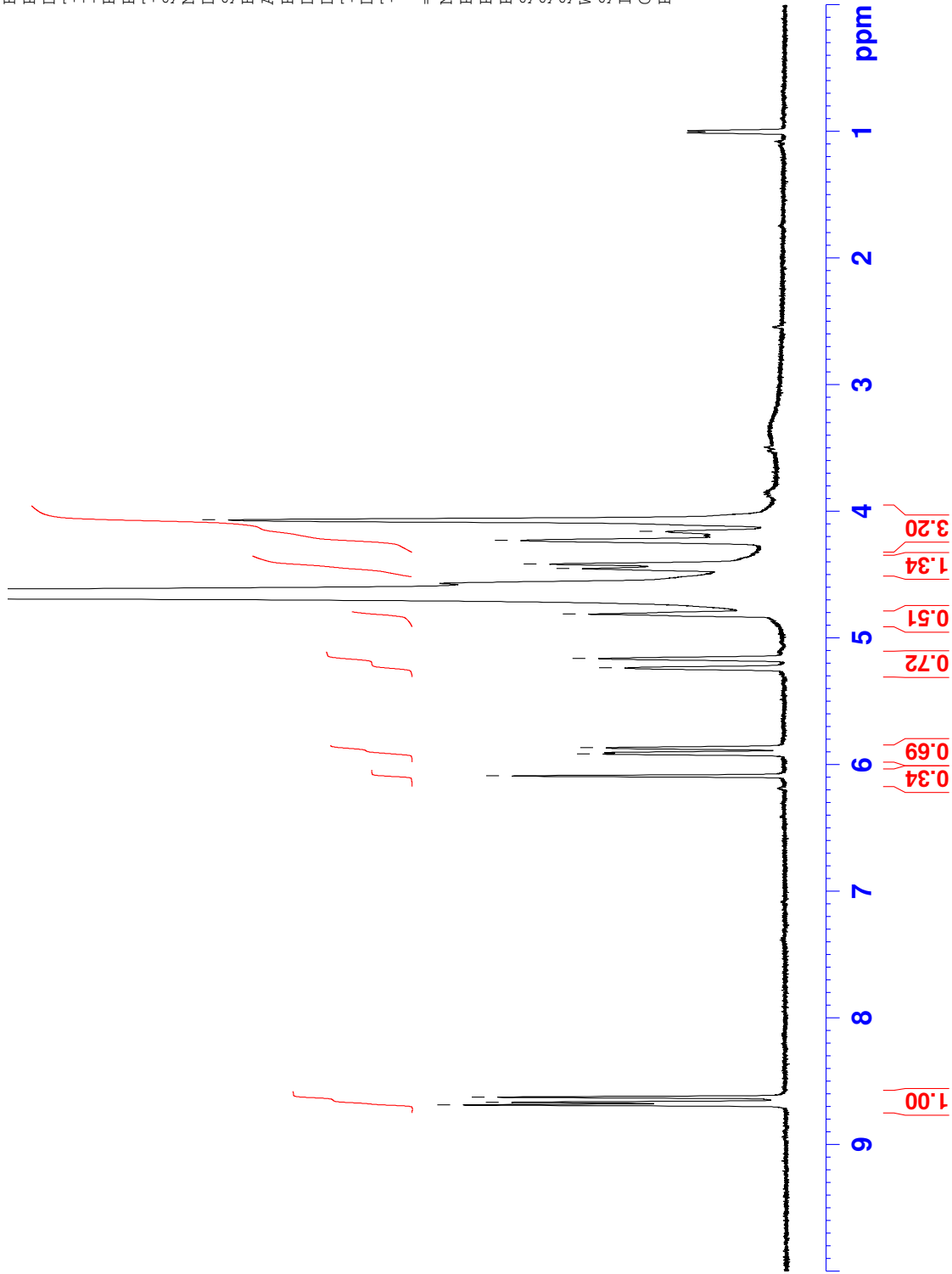


8.887
8.67
8.526

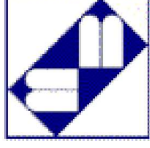
6.089
5.916
5.867

5.236
5.162
4.811
4.452
4.417
4.230
4.159
4.067

NAME M1593-20110727--TN
EXPNO 1
PROCNO 1
Date_ 20110803
Time 11.18
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT D2O
NS 512
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 362
DW 62.400 use
DE 6.50 use
TE 294.6 K
D1 1.00000000 sec
TD0 1
===== CHANNEL f1 =====
NUC1 1H
P1 14.50 use
PL1 -0.70 dB
PL1W 10.03411102 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300185 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00



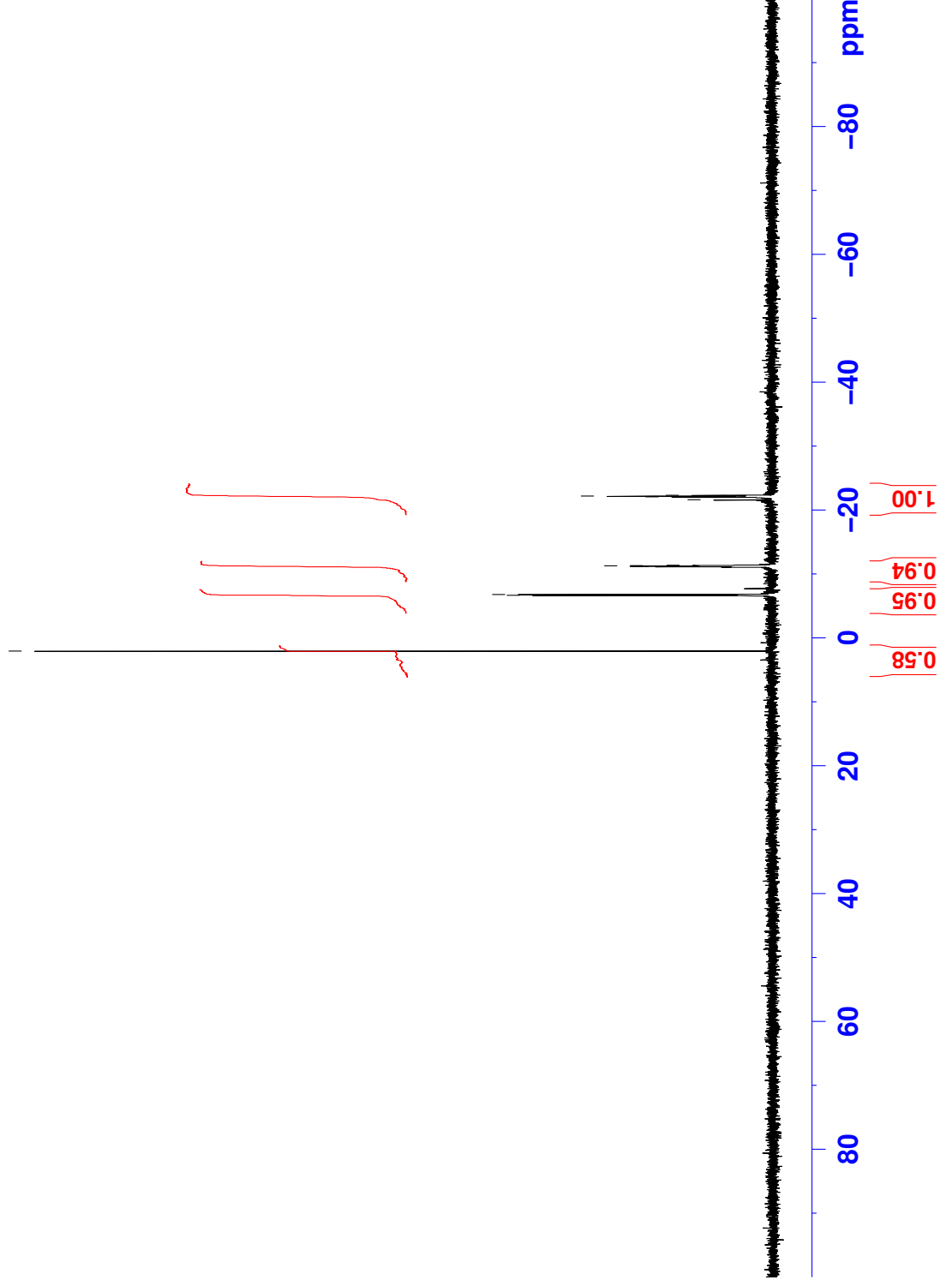
M1593 31P NMR in D2O
Batch 20110727-TNG



2.066
6.659
6.783
11.150
11.185
11.270
11.304
11.363
21.611
22.064
22.187
22.308

NAME M1593-20110727--TN
EXPNO 2
PROCNO 1
Date_ 20110803
Time 12.39
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT D2O
NS 1000
DS 4
SWH 64935.066 Hz
FIDRES 0.990830 Hz
AQ 0.5046772 sec
RG 2580.3
DW 7.700 use
DE 6.50 use
TE 294.4 K
D1 2.00000000 sec
TD0 1

==== CHANNEL f1 =====
NUC1 31P
P1 5.50 use
PL1 -4.00 dB
PL1W 65.61956024 W
SF01 161.9674942 MHz
SI 32768
SF 161.9755930 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.40



30/May/03 09:40:04

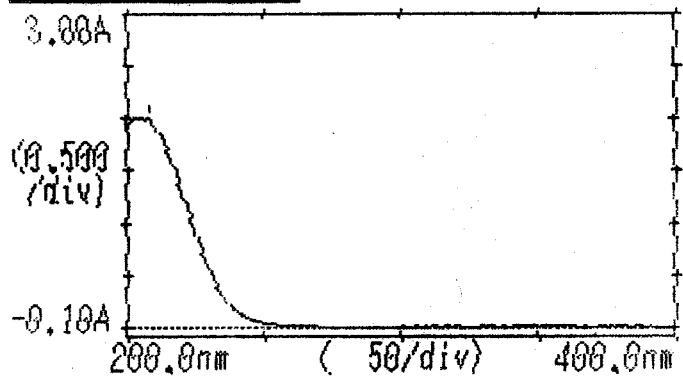
Peak detection

Abscis.	ABS	Abscis.	ABS
208.5	2.000		

Graph PrintOut [] Valley

30/May/03 09:40:34

Data Processing



[] [] [] Valley