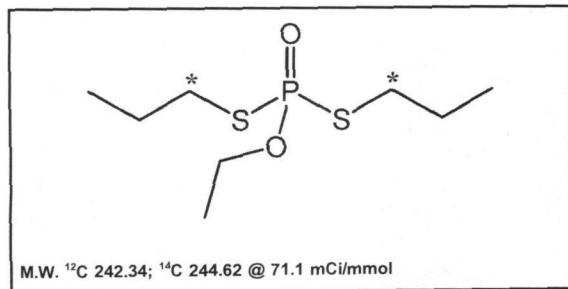




Product Data Sheet

MC-2337

Ethoprop, [propyl-1,1'-¹⁴C2]-



Lot #: 193-061-0711-A-20100112-DR

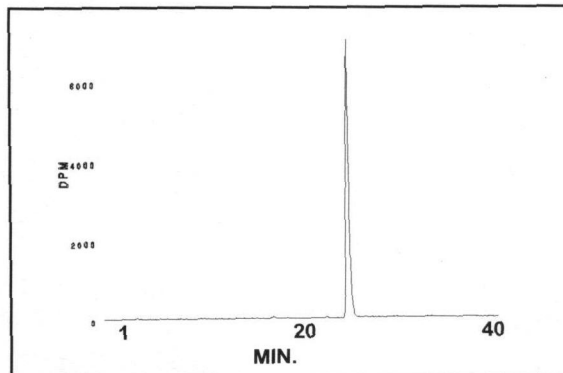
Specific Activity: 71.1 mCi/mmol

Concentration: 0.1 mCi/ml; 344.05 µg/ml

Packaged in: Acetonitrile solution

Date of Analysis: January 13, 2010

Radiochemical Purity: 99.2%



HPLC ANALYSIS LOT 193-061-0711-A-20100112-DR
File Name: intg2480 Date and Time: 1/13/2010 1:38:08 PM
Unit 16 Radio

| Peak # | Area % | Time | Area |
|--------|--------|----------|-------------|
| 1 | 0.41 | 17.22330 | 61.83760 |
| 2 | 0.33 | 22.78670 | 50.24652 |
| 3 | 99.26 | 24.78000 | 15048.84209 |
| Totals | 100.00 | | 15160.92621 |

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.

MC-2337

Ethoprop, [propyl-1,1'-¹⁴C₂]-

Lot 193-061-0711-A-20100112-DR

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.

Ethoprop, [propyl-1,1'-¹⁴C₂]- concentration was 47.0 µCi/ml.

Volume of standard alone injection was 5.0 µl.

Volume of **Ethoprop, [propyl-1,1'-¹⁴C₂]-** alone injection was 3.0 µl.

Co-injection solution consisted of 3.0 µl **Ethoprop, [propyl-1,1'-¹⁴C₂]-** + 5.0 µl standard.

Volume of co-injection was 8.0 µl.

Volume of blank injection was 3.0 µl.

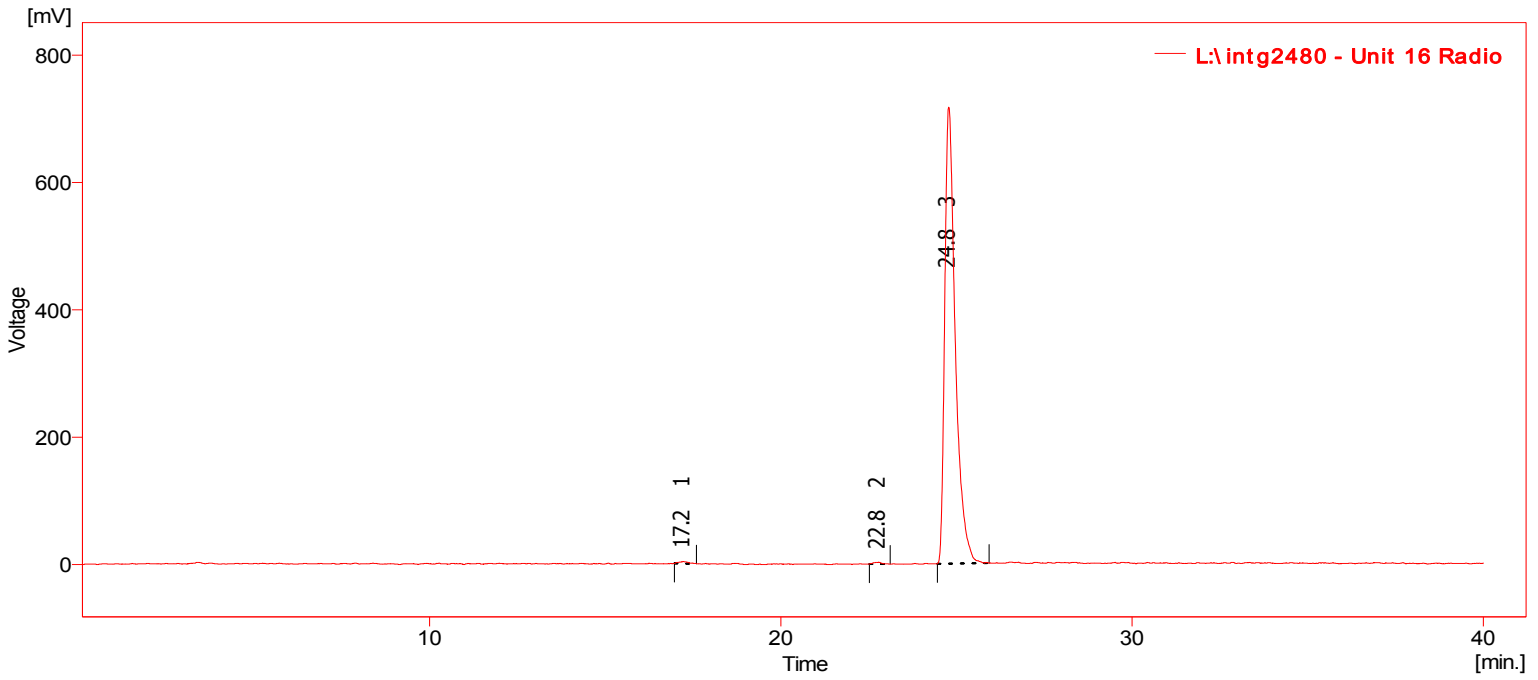
B) Mass spectrometry - Positive mode

C) NMR

MC-2337
Ethoprop, [propyl-1,1'-14C]-
Lot 193-061-0711-A-20100112-DR

Chromatogram Info:

| | | | |
|--------------|---|---------------|------------------------|
| File Name | : L:\intg2480 | File Created | : 5/9/2014 8:30:32 AM |
| Origin | : Acquired, Acquisition started 1/13/2010 12:58:10 PM | Acquired Date | : 1/13/2010 1:38:08 PM |
| Project | : Work1 | By | : Administrator |
| Method | : Unit16_40_min_run | By | : Administrator |
| Description | : Radiochemical trace of 14C material alone | Modified | : 5/9/2014 8:47 AM |
| Created | : 8/9/2007 8:59 AM | | |
| Column | : | Detection | : Radiochemical |
| Mobile Phase | : | Temperature | : |
| Flow Rate | : | Pressure | : |
| Note | : | | |



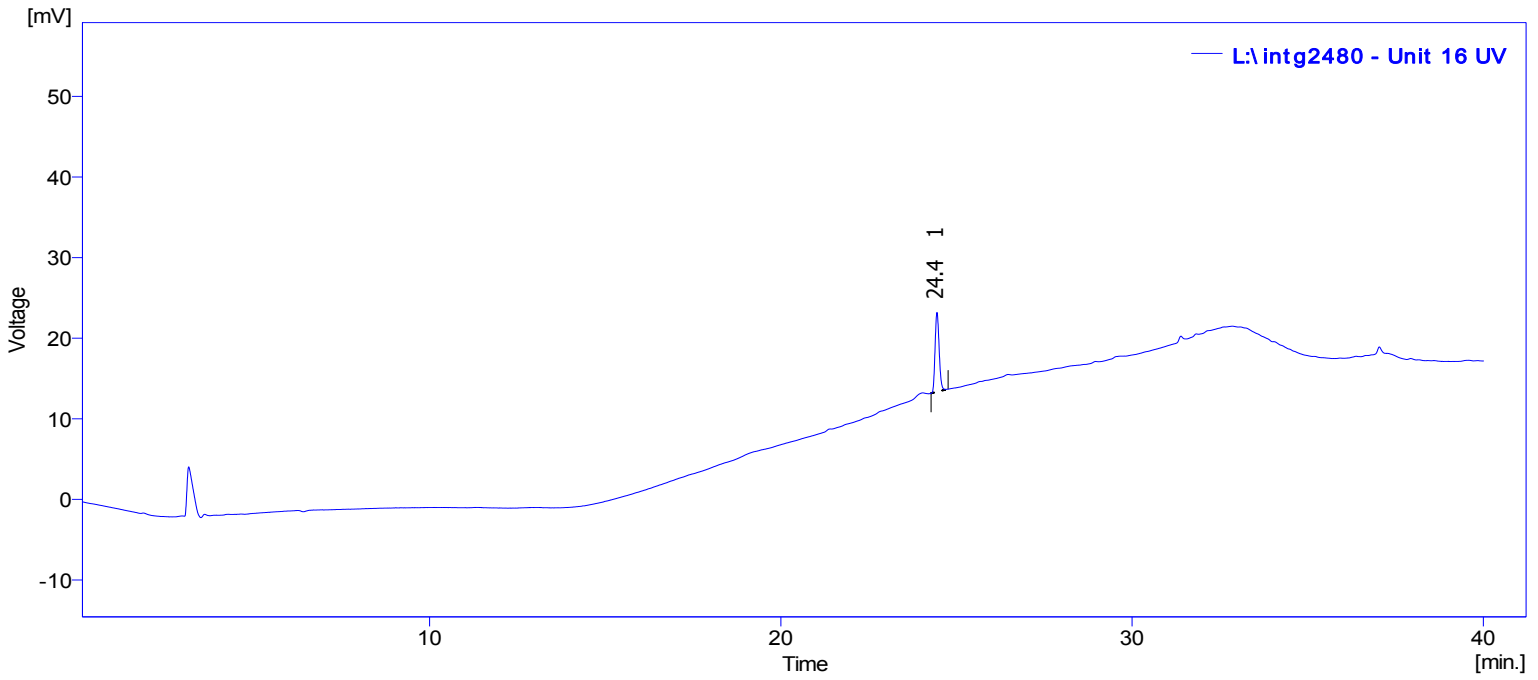
Result Table (Uncal - L:\intg2480 - Unit 16 Radio)

| | Compound Name | Reten. Time [min] | Area [mV.s] | Height [mV] | Area [%] | Height [%] | W05 [min] | Efficiency [th.pl] | Eff/I [t.p./m] | Resolution [-] | Symmetry/Tailing [-] | Response Factor |
|---|---------------|-------------------|-------------|-------------|----------|------------|-----------|--------------------|----------------|----------------|----------------------|-----------------|
| 1 | | 17.22 | 61.838 | 3.32 | 0.41 | 0.5 | 0.37 | 16067 | 321347 | | 1.30 | |
| 2 | | 22.79 | 50.247 | 3.19 | 0.33 | 0.4 | 0.22 | 37538 | 750752 | 11.06 | 1.03 | |
| 3 | | 24.78 | 15048.842 | 717.02 | 99.26 | 99.1 | 0.31 | 21196 | 423918 | 4.41 | 1.65 | |
| | Total | | 15160.926 | 723.52 | 100.00 | 100.0 | | | | | | |

MC-2337
Ethoprop, [propyl-1,1'-14C]-
Lot 193-061-0711-A-20100112-DR

Chromatogram Info:

| | | | |
|--------------|---|---------------|------------------------|
| File Name | : L:\intg2480 | File Created | : 5/9/2014 8:30:32 AM |
| Origin | : Acquired, Acquisition started 1/13/2010 12:58:10 PM | Acquired Date | : 1/13/2010 1:38:08 PM |
| Project | : Work1 | By | : Administrator |
| Method | : Unit16_40_min_run | By | : Administrator |
| Description | : UV trace of 14C material alone | Modified | : 5/9/2014 8:38 AM |
| Created | : 8/9/2007 8:59 AM | | |
| Column | : | Detection | : UV 200nm |
| Mobile Phase | : | Temperature | : |
| Flow Rate | : | Pressure | : |
| Note | : | | |



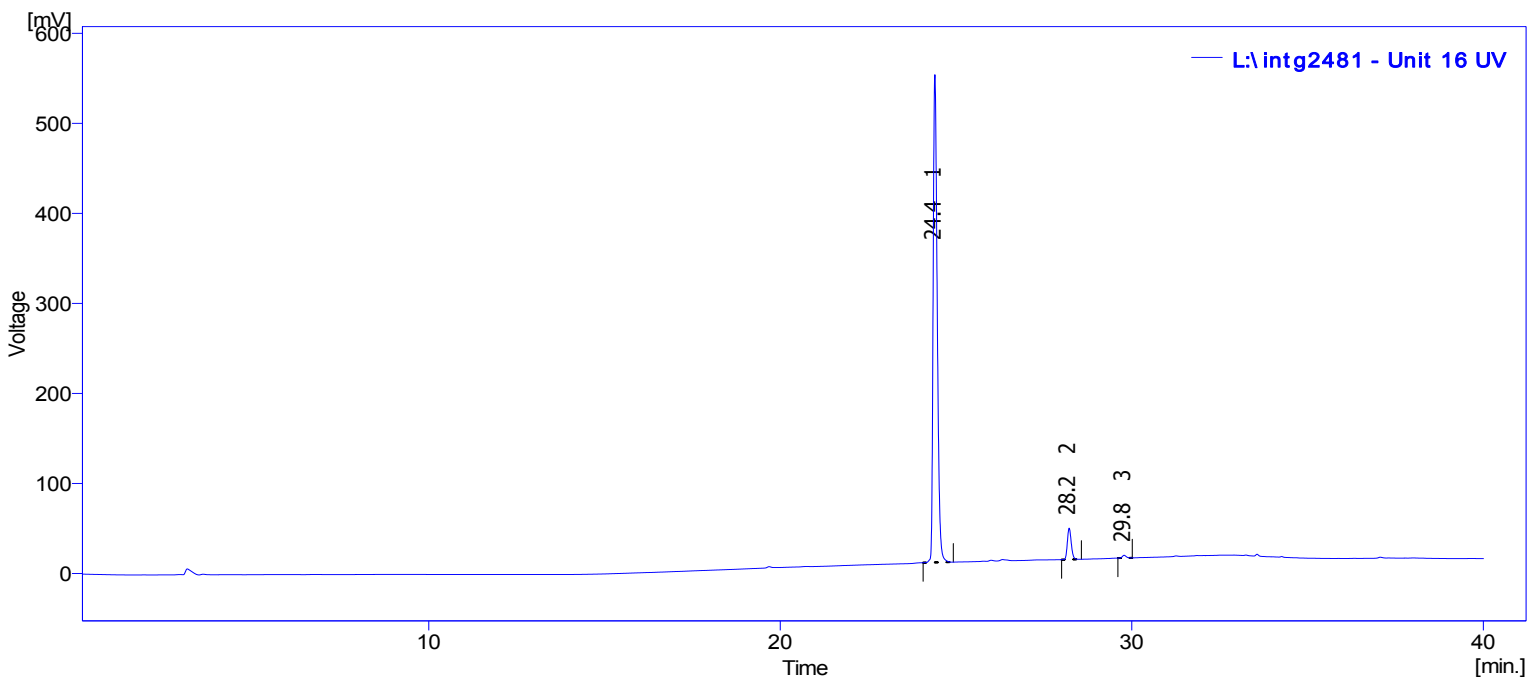
Result Table (Uncal - L:\intg2480 - Unit 16 UV)

| Compound Name | Reten. Time [min] | Area [mV.s] | Height [mV] | Area [%] | Height [%] | W05 [min] | Efficiency [th.pl] | Eff/I [t.p./m] | Resolution [-] | Symmetry/Tailing [-] | Response Factor |
|---------------|-------------------|-------------|-------------|----------|------------|-----------|--------------------|----------------|----------------|----------------------|-----------------|
| 1 | 24.45 | 79.056 | 9.86 | 100.00 | 100.0 | 0.13 | 195368 | 3907353 | | 1.18 | |
| Total | | 79.056 | 9.86 | 100.00 | 100.0 | | | | | | |

MC-2337
Ethoprop, [propyl-1,1'-14C2]-
Lot 193-061-0711-A-20100112-DR

Chromatogram Info:

| | | | |
|--------------|--|---------------|------------------------|
| File Name | : L:\intg2481 | File Created | : 5/9/2014 8:30:32 AM |
| Origin | : Acquired, Acquisition started 1/13/2010 2:52:28 PM | Acquired Date | : 1/13/2010 3:32:27 PM |
| Project | : Work1 | By | : Administrator |
| Method | : Unit16_40_min_run | By | : Administrator |
| Description | : UV trace of standard material alone | Modified | : 5/9/2014 8:48 AM |
| Created | : 8/9/2007 8:59 AM | | |
| Column | : | Detection | : UV 200nm |
| Mobile Phase | : | Temperature | : |
| Flow Rate | : | Pressure | : |
| Note | : | | |



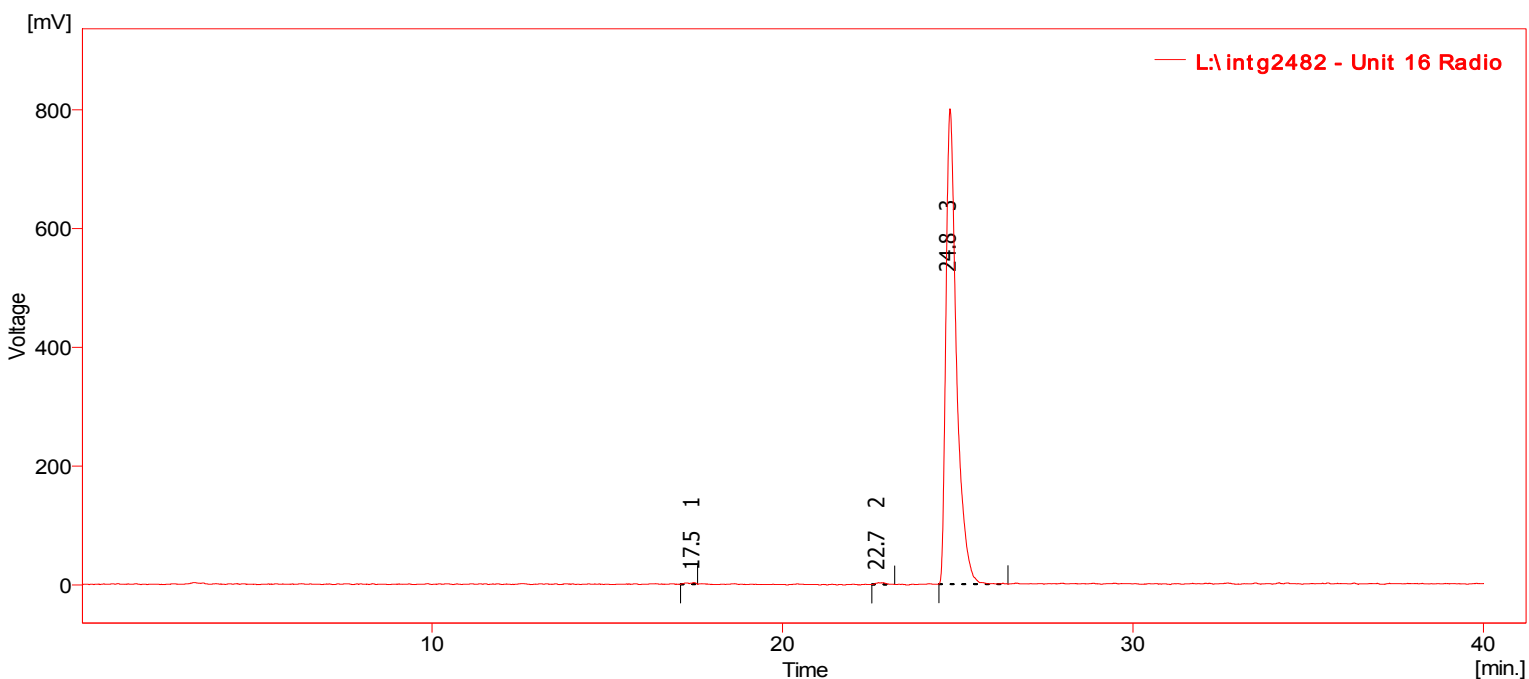
Result Table (Uncal - L:\intg2481 - Unit 16 UV)

| Compound Name | Reten. Time [min] | Area [mV.s] | Height [mV] | Area [%] | Height [%] | W05 [min] | Efficiency [th.pl] | Eff/I [t.p./m] | Resolution [-] | Symmetry/Tailing [-] | Response Factor |
|---------------|-------------------|-------------|-------------|----------|------------|-----------|--------------------|----------------|----------------|----------------------|-----------------|
| 1 | 24.40 | 4392.731 | 541.78 | 93.82 | 93.5 | 0.13 | 162031 | 3240615 | | 1.35 | |
| 2 | 28.22 | 266.627 | 34.80 | 5.69 | 6.0 | 0.12 | 278323 | 5566468 | 18.03 | 1.18 | |
| 3 | 29.78 | 22.950 | 3.07 | 0.49 | 0.5 | 0.12 | 320950 | 6419009 | 7.69 | 1.16 | |
| Total | | 4682.308 | 579.65 | 100.00 | 100.0 | | | | | | |

MC-2337
Ethoprop, [propyl-1,1'-14C]-
Lot 193-061-0711-A-20100112-DR

Chromatogram Info:

| | | | |
|--------------|---|---------------|------------------------|
| File Name | : L:\intg2482 | File Created | : 5/9/2014 8:30:32 AM |
| Origin | : Acquired, Acquisition started 1/13/2010 3:42:28 PM | Acquired Date | : 1/13/2010 4:22:26 PM |
| Project | : Work1 | By | : Administrator |
| Method | : Unit16_40_min_run | By | : Administrator |
| Description | : Radiochemical trace of 14C material co-injected with standard | | |
| Created | : 8/9/2007 8:59 AM | Modified | : 5/9/2014 8:49 AM |
| Column | : | Detection | : Radiochemical |
| Mobile Phase | : | Temperature | : |
| Flow Rate | : | Pressure | : |
| Note | : | | |



Result Table (Uncal - L:\intg2482 - Unit 16 Radio)

| | Compound Name | Reten. Time [min] | Area [mV.s] | Height [mV] | Area [%] | Height [%] | W05 [min] | Efficiency [th.pl] | Eff/I [t.p./m] | Resolution [-] | Symmetry/Tailing [-] | Response Factor |
|---|---------------|-------------------|-------------|-------------|----------|------------|-----------|--------------------|----------------|----------------|----------------------|-----------------|
| 1 | | 17.46 | 50.860 | 2.88 | 0.30 | 0.4 | 0.19 | 19511 | 390220 | | 0.66 | |
| 2 | | 22.74 | 61.738 | 3.19 | 0.36 | 0.4 | 0.29 | 31171 | 623414 | 12.89 | 1.86 | |
| 3 | | 24.78 | 16817.718 | 800.47 | 99.33 | 99.2 | 0.30 | 18869 | 377377 | 4.03 | 1.68 | |
| | Total | | 16930.316 | 806.53 | 100.00 | 100.0 | | | | | | |

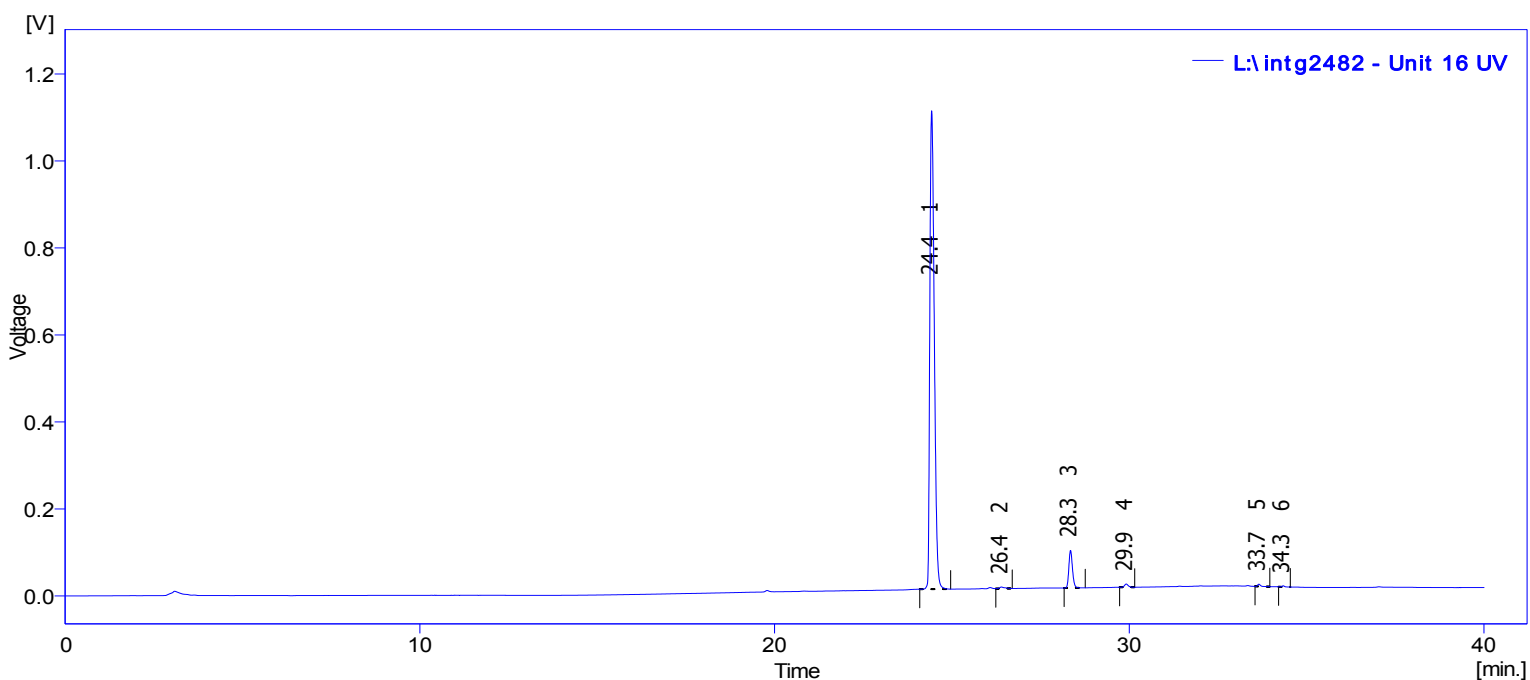
MC-2337
Ethoprop, [propyl-1,1'-14C]-
Lot 193-061-0711-A-20100112-DR

Chromatogram Info:

File Name : L:\intg2482 File Created : 5/9/2014 8:30:32 AM
 Origin : Acquired, Acquisition started 1/13/2010 3:42:28 PM Acquired Date : 1/13/2010 4:22:26 PM
 Project : Work1 By : Administrator

Method : Unit16_40_min_run By : Administrator
 Description : UV trace of 14C material co-injected with standard
 Created : 8/9/2007 8:59 AM Modified : 5/9/2014 8:48 AM

Column : Detection : UV 200nm
 Mobile Phase : Temperature :
 Flow Rate : Pressure :
 Note :



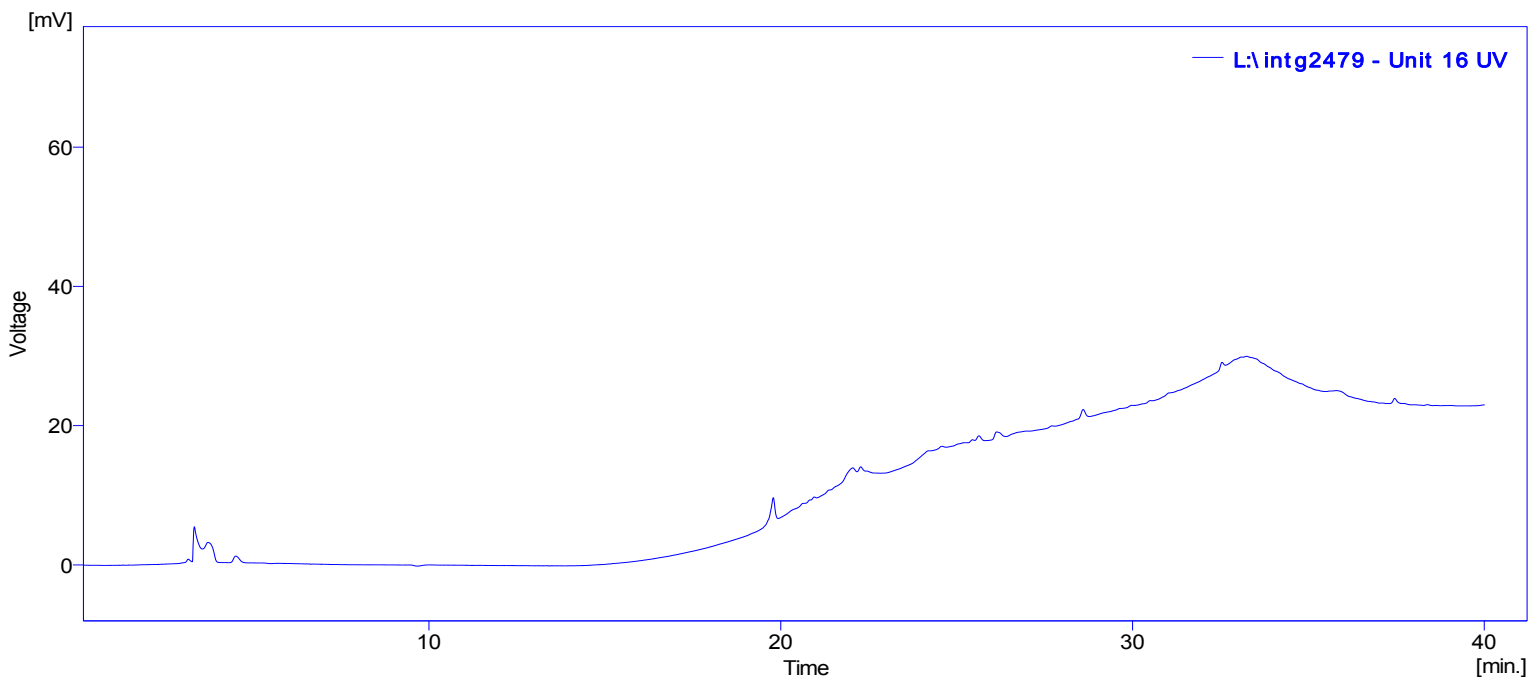
Result Table (Uncal - L:\intg2482 - Unit 16 UV)

| Compound Name | Reten. Time [min] | Area [mV.s] | Height [mV] | Area [%] | Height [%] | W05 [min] | Efficiency [th.pl] | Eff/I [t.p./m] | Resolution [-] | Symmetry/Tailing [-] | Response Factor |
|---------------|-------------------|-------------|-------------|----------|------------|-----------|--------------------|----------------|----------------|----------------------|-----------------|
| 1 | 24.43 | 9632.408 | 1099.80 | 92.88 | 91.3 | 0.14 | 155885 | 3117690 | | 1.40 | |
| 2 | 26.39 | 36.495 | 3.59 | 0.35 | 0.3 | 0.17 | 116084 | 2321683 | 7.47 | 1.62 | |
| 3 | 28.34 | 606.875 | 86.26 | 5.85 | 7.2 | 0.11 | 313696 | 6273915 | 8.22 | 1.16 | |
| 4 | 29.91 | 54.483 | 7.47 | 0.53 | 0.6 | 0.11 | 317827 | 6356539 | 8.30 | 1.14 | |
| 5 | 33.65 | 28.717 | 5.26 | 0.28 | 0.4 | 0.08 | 542041 | 10840818 | 22.44 | 1.26 | |
| 6 | 34.34 | 11.318 | 2.47 | 0.11 | 0.2 | 0.07 | 962470 | 19249395 | 5.17 | 1.13 | |
| Total | | 10370.297 | 1204.85 | 100.00 | 100.0 | | | | | | |

MC-2337
Ethoprop, [propyl-1,1'-14C2]-
Lot 193-061-0711-A-20100112-DR

Chromatogram Info:

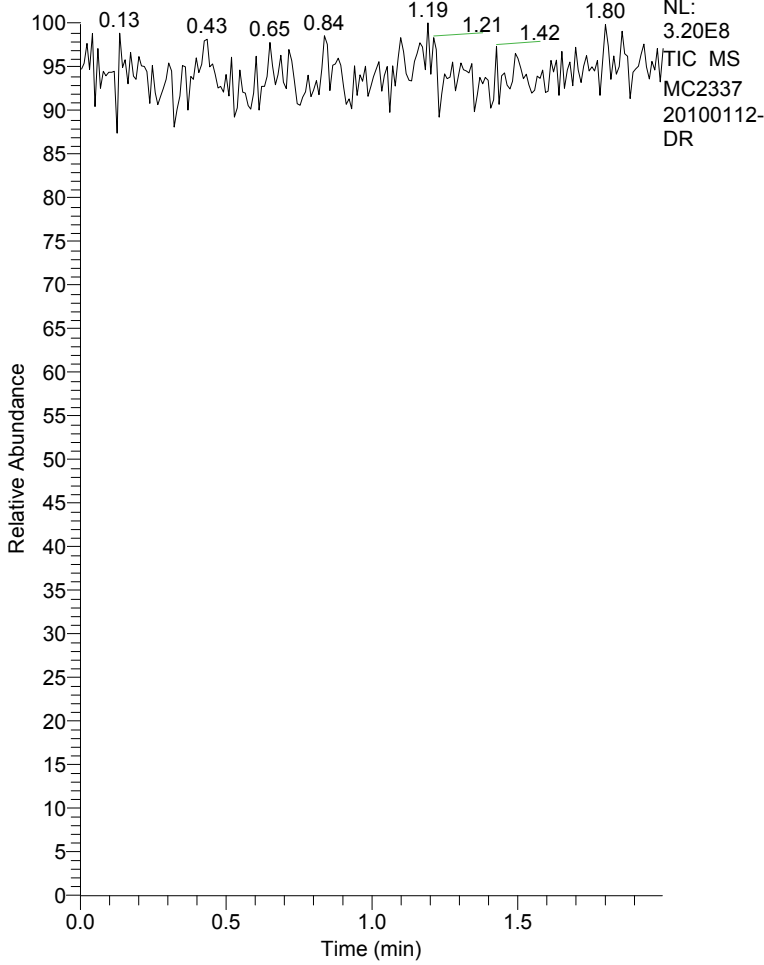
| | | | |
|--------------|---|---------------|-------------------------|
| File Name | : L:\intg2479 | File Created | : 5/9/2014 8:30:32 AM |
| Origin | : Acquired, Acquisition started 1/13/2010 11:26:20 AM | Acquired Date | : 1/13/2010 12:06:19 PM |
| Project | : Work1 | By | : Administrator |
| Method | : Unit16_40_min_run | By | : Administrator |
| Description | : UV trace of blank injection | | |
| Created | : 8/9/2007 8:59 AM | Modified | : 5/9/2014 8:37 AM |
| Column | : | Detection | : UV 200nm |
| Mobile Phase | : | Temperature | : |
| Flow Rate | : | Pressure | : |
| Note | : | | |



Result Table (Uncal - L:\intg2479 - Unit 16 UV)

| Compound Name | Reten. Time [min] | Area [mV.s] | Height [mV] | Area [%] | Height [%] | W05 [min] | Efficiency [th.pl] | Eff/l [t.p./m] | Resolution [-] | Symmetry/Tailing [-] | Response Factor |
|-------------------|-------------------|-------------|-------------|----------|------------|-----------|--------------------|----------------|----------------|----------------------|-----------------|
| No peak to report | | | | | | | | | | | |

RT: 0.00 - 2.00



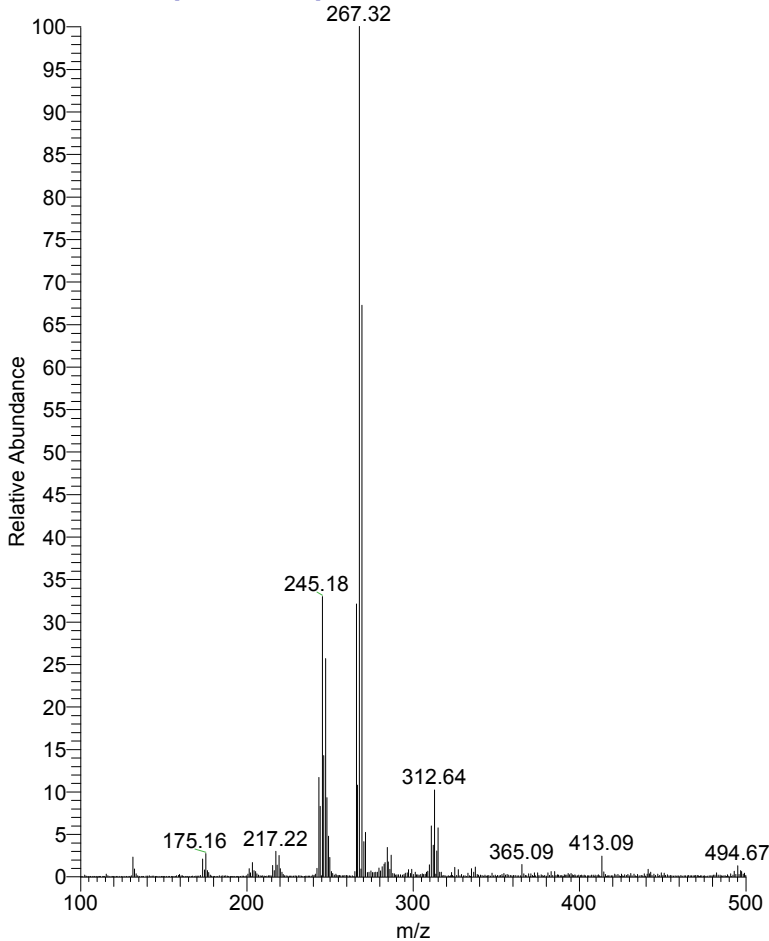
MC2337-20100112-DR #1-214 RT: 0.00-2.00

T: + c NSI Full ms [100.00-500.00]

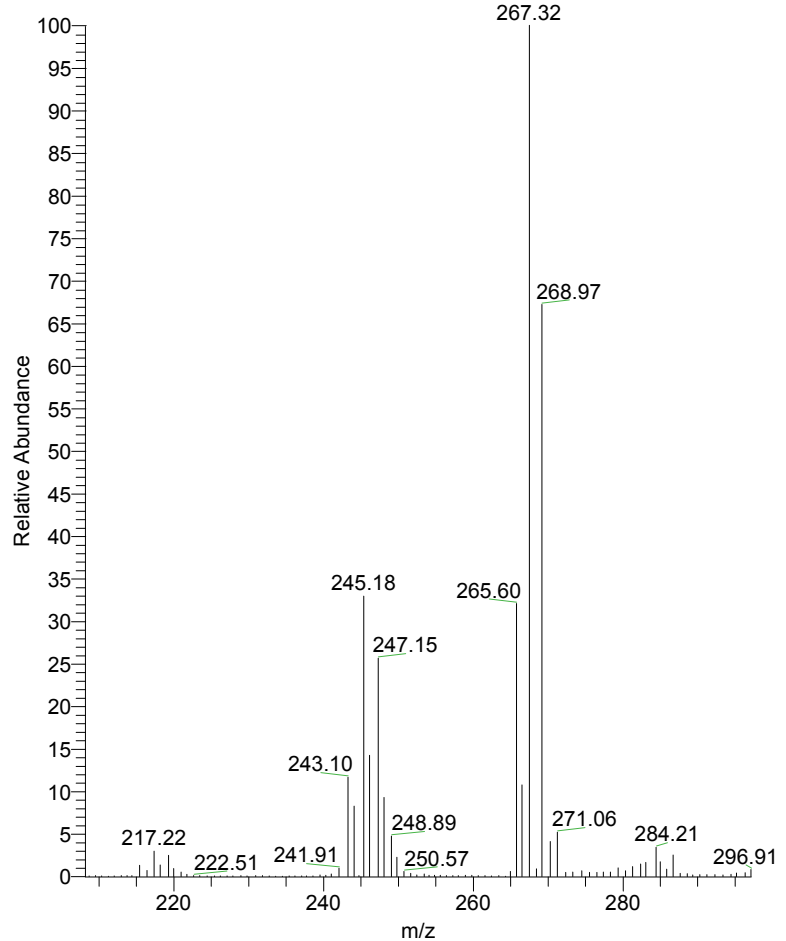
m/z = 259.23-275.63

| m/z | Intensity | Relative |
|--------|------------|----------|
| 264.12 | 7668.3 | 0.01 |
| 264.77 | 372656.1 | 0.58 |
| 265.60 | 20725862.9 | 32.07 |
| 266.31 | 6941444.0 | 10.74 |
| 267.32 | 64619821.8 | 100.00 |
| 268.26 | 564307.0 | 0.87 |
| 268.97 | 43443620.2 | 67.23 |
| 270.10 | 2661834.5 | 4.12 |
| 271.06 | 3354671.4 | 5.19 |
| 272.18 | 306340.7 | 0.47 |
| 273.13 | 329466.4 | 0.51 |
| 274.32 | 431308.4 | 0.67 |
| 275.33 | 313265.2 | 0.48 |

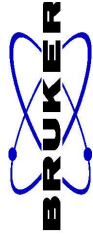
MC2337-20100112-DR #1-214 RT: 0.00-2.00 AV: 214 NL: 6.46E7
T: + c NSI Full ms [100.00-500.00]



MC2337-20100112-DR #1-214 RT: 0.00-2.00 AV: 214 NL: 6.46E7
T: + c NSI Full ms [100.00-500.00]



MC2337 1H NMR in CDCl3
Batch# 20100112-DR



4.243
4.225
4.205

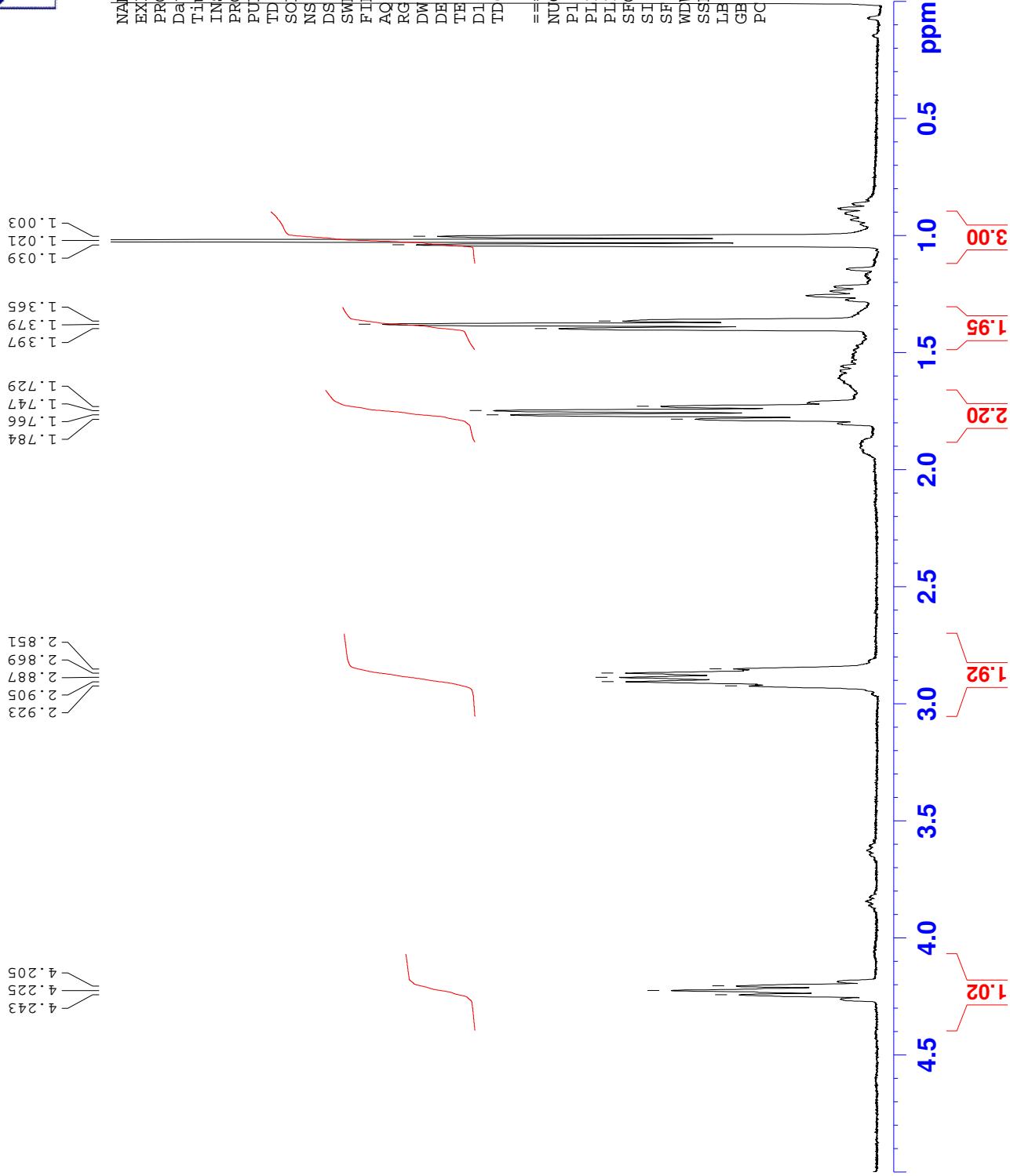
2.923
2.905
2.887
2.869
2.851

1.784
1.766
1.747
1.729

1.397
1.379
1.365

1.039
1.021
1.003

NAME MC2337
EXPNO 1
PROCNO 1
Date_ 20100113
Time 11.23
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 125
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 294.5 K
D1 2.00000000 sec
TD0 1
===== CHANNEL f1 =====
NUC1 1H
P1 14.50 usec
PL1 -0.70 dB
PILW 10.03411102 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300068 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00



MC2337 31P NMR in CDCl3
Batch# 20100112-DR



56.787

MC2337
NAME
EXPNO 2
PROCNO 1
Date_ 20100113
Time 11.52
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 362
DS 4
SWH 64935.066 Hz
FIDRES 0.990830 Hz
AQ 0.5046772 sec
RG 20642.5
DW 7.700 usec
DE 6.50 usec
TE 295.5 K
D1 2.00000000 sec
D11 0.03000000 sec
TDO 1

=====
CHANNEL f1 =====
NUC1 31P
P1 5.50 usec
PL1 -4.00 dB
PL1W 65.61956024 W
SFO1 161.9674942 MHz

=====
CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -0.70 dB
PL12 15.16 dB
PL13 15.00 dB
PL12W 10.03411102 W
PL12W 0.26030284 W
PL13W 0.27007160 W
SFO2 400.1316005 MHz
SI 32768
SF 161.9755930 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.40

100 50 0 -50 -100 -150 ppm

1.00

