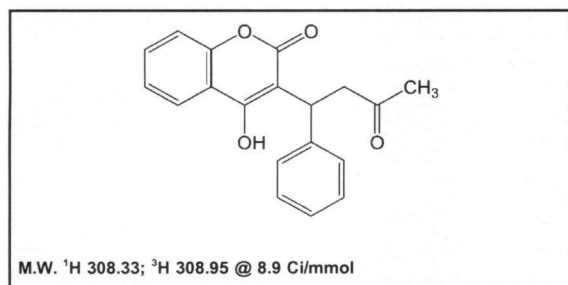




Product Data Sheet

MT-1919

(R,S)-Warfarin, [³H]-



Lot #: 211-045-0089-A-20090311-NT

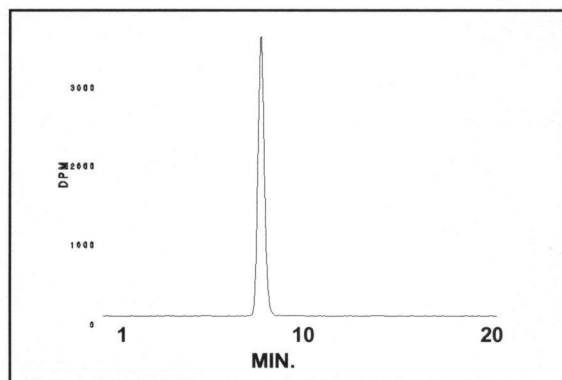
Specific Activity: 8.9 Ci/mmol

Concentration: 1.0 mCi/ml; 34.71 µg/ml

Packaged in: Ethanol solution

Date of Analysis: December 01, 2010

Radiochemical Purity: 99.8%



HPLC ANALYSIS LOT 211-045-0089-A-20090311-NT
File Name: int20807 Date and Time: 12/1/2010 11:20:16 A
Unit 2 Radio

Peak #	Area %	Time	Area
1	0.05	7.47000	4.30055
2	99.82	8.05500	7925.86536
3	0.13	9.02670	10.37183
Totals	100.00		7940.53774

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.

MT-1919

(R,S)-Warfarin, [³H]-

Lot 211-045-0089-A-20090311-NT

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.

(R,S)-Warfarin, [³H]- concentration was 0.1 mCi/ml.

Volume of standard alone injection was 2.0 µl.

Volume of **(R,S)-Warfarin, [³H]-** alone injection was 2.0 µl.

Co-injection solution consisted of 2.0 µl **(R,S)-Warfarin, [³H]-** + 2.0 µl standard.

Volume of co-injection was 4.0 µl.

Volume of blank injection was 2.0 µl.

B) Mass spectrometry – Negative mode

C) NMR

MT-1919
(R,S)-Warfarin, [3H]-
Lot 211-045-0089-A-20090311-NT

Chromatogram Info:

File Name	: L:\int20807	File Created	: 4/16/2014 9:07:53 AM
Origin	: Acquired, Acquisition started 12/1/2010 11:00:16 AM	Acquired Date	: 12/1/2010 11:20:16 AM
Project	: Work1	By	: Administrator

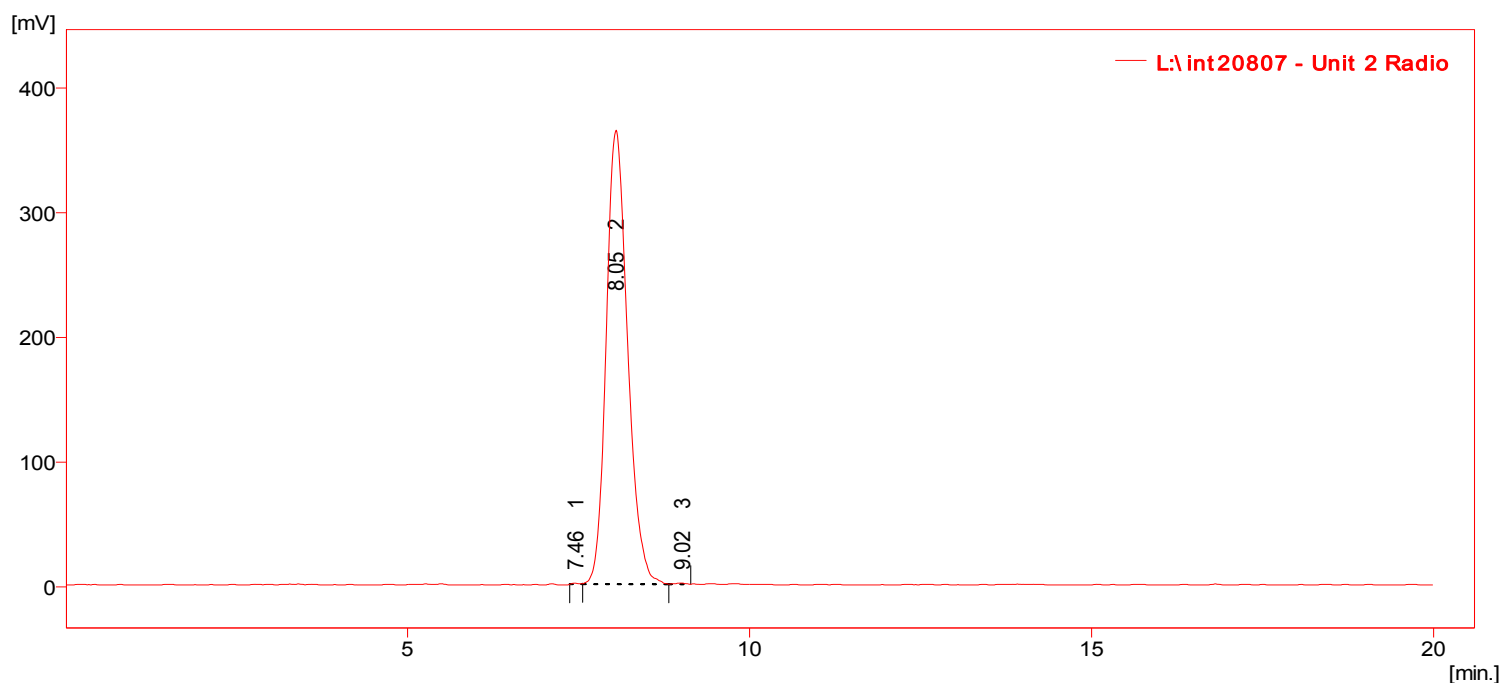
Sample Info:

Sample ID	:	Amount	: 0
Sample	:	ISTD Amount	: 0
Inj. Volume [mL]	: 0	Dilution	: 1

Method : unit2-20minrun By : Administrator

Description : Radiochemical trace of 3H material alone

Created : 8/8/2007 9:12 AM Modified : 4/16/2014 9:19 AM



Result Table (Uncal - L:\int20807 - Unit 2 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		7.46	5.628	0.85	0.07	0.2	0.10	30831	616620		1.06	
2		8.05	7930.518	364.04	99.80	99.5	0.34	3106	62112	1.58	1.19	
3		9.02	10.416	0.96	0.13	0.3	0.16	17607	352138	2.29	0.78	
	Total		7946.563	365.85	100.00	100.0						

MT-1919
(R,S)-Warfarin, [3H]-
Lot 211-045-0089-A-20090311-NT

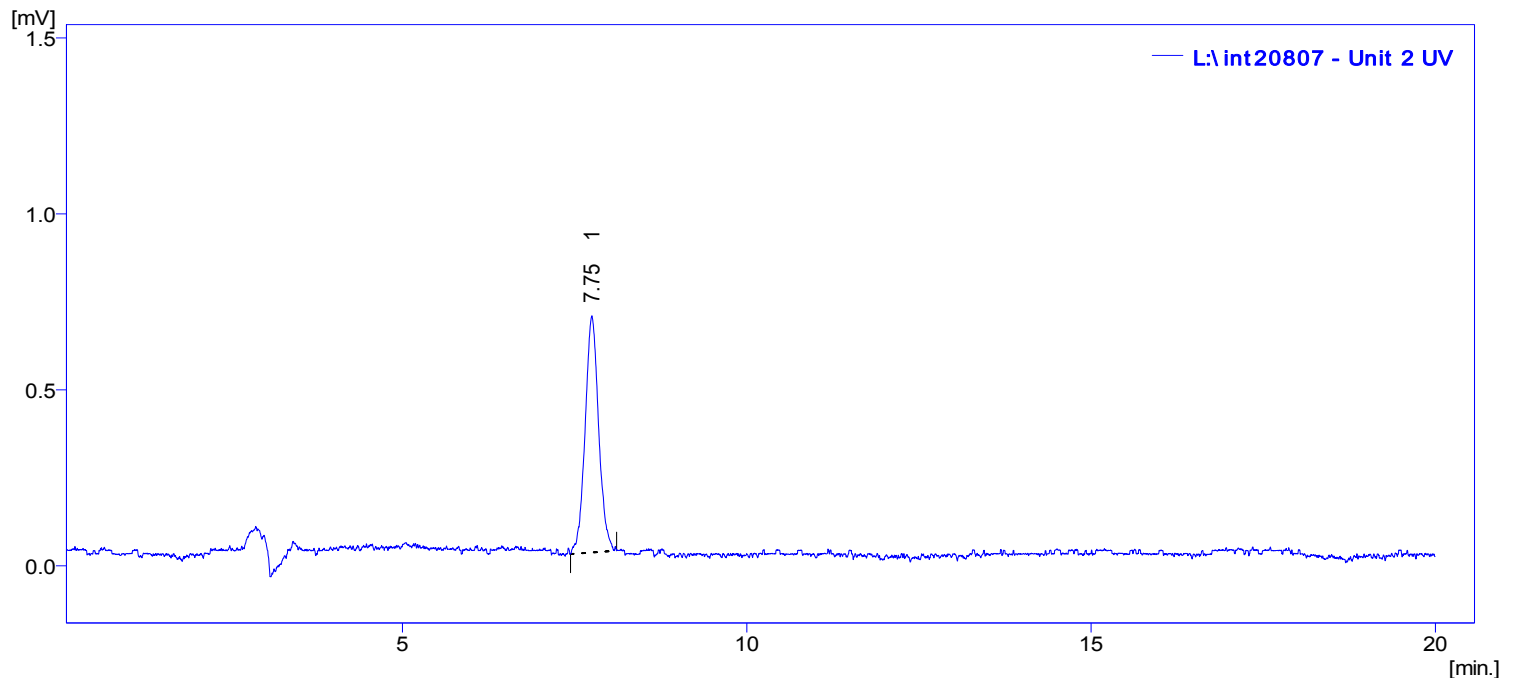
Chromatogram Info:

File Name : L:\int20807
 Origin : Acquired, Acquisition started 12/1/2010 11:00:16 AM
 Project : Work1
 File Created : 4/16/2014 9:07:53 AM
 Acquired Date : 12/1/2010 11:20:16 AM
 By : Administrator

Sample Info:

Sample ID :
 Sample :
 Inj. Volume [mL] : 0
 Amount : 0
 ISTD Amount : 0
 Dilution : 1

Method : unit2-20minrun
 Description : UV trace of 3H material alone
 Created : 8/8/2007 9:12 AM
 By : Administrator
 Modified : 4/16/2014 9:18 AM



Result Table (Uncal - L:\int20807 - Unit 2 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		7.75	9.207	0.67	100.00	100.0	0.21	7791	155813		1.07	
		Total	9.207	0.67	100.00	100.0						

MT-1919
(R,S)-Warfarin, [3H]-
Lot 211-045-0089-A-20090311-NT

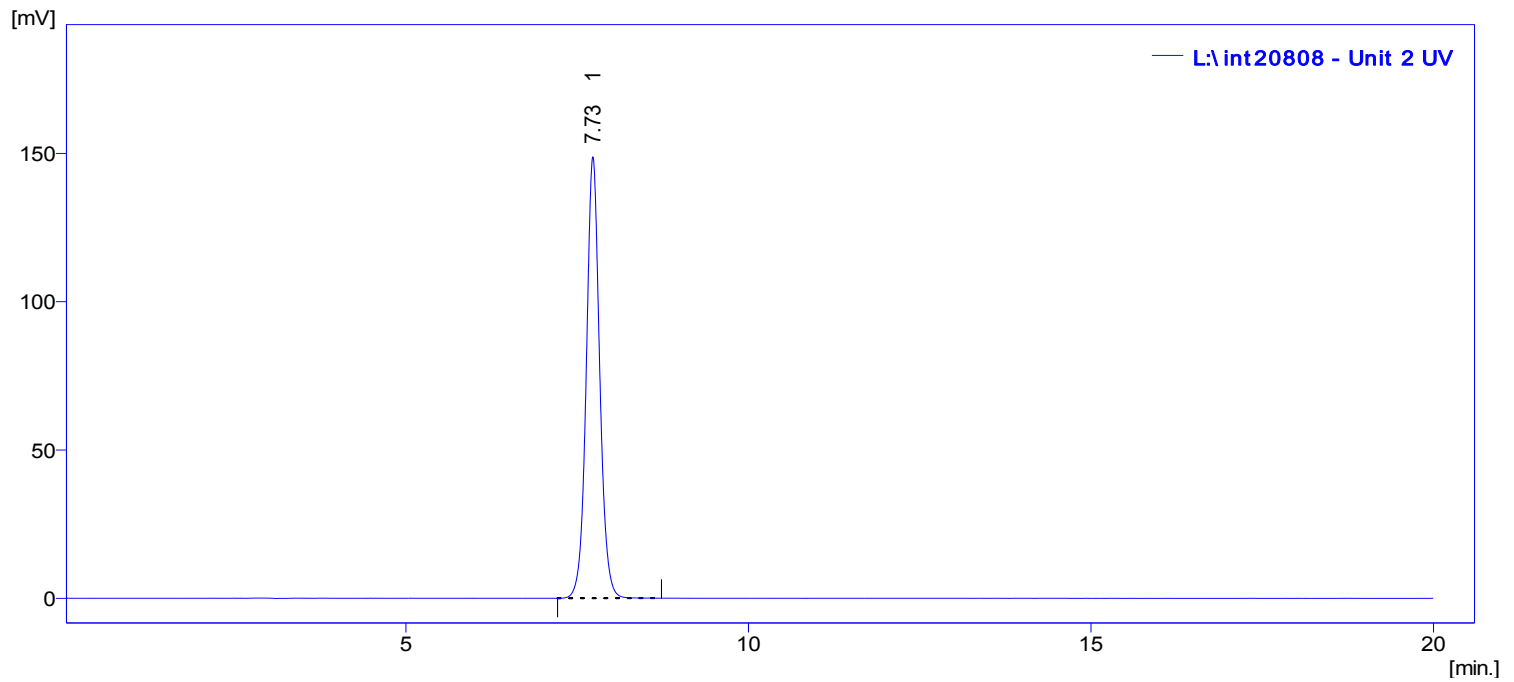
Chromatogram Info:

File Name : L:\int20808 File Created : 4/16/2014 9:07:50 AM
 Origin : Acquired, Acquisition started 12/1/2010 11:33:31 AM Acquired Date : 12/1/2010 11:53:30 AM
 Project : Work1 By : Administrator

Sample Info:

Sample ID : Amount : 0
 Sample : ISTD Amount : 0
 Inj. Volume [mL] : 0 Dilution : 1

Method : unit2-20minrun By : Administrator
 Description : UV trace of standard material alone
 Created : 8/8/2007 9:12 AM Modified : 4/16/2014 9:20 AM



Result Table (Uncal - L:\int20808 - Unit 2 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		7.73	2025.135	148.81	100.00	100.0	0.21	7750	155009		1.05	
		Total	2025.135	148.81	100.00	100.0						

MT-1919
(R,S)-Warfarin, [3H]-
Lot 211-045-0089-A-20090311-NT

Chromatogram Info:

File Name	: L:\int20809	File Created	: 4/16/2014 9:07:50 AM
Origin	: Acquired, Acquisition started 12/1/2010 11:57:28 AM	Acquired Date	: 12/1/2010 12:17:27 PM
Project	: Work1	By	: Administrator

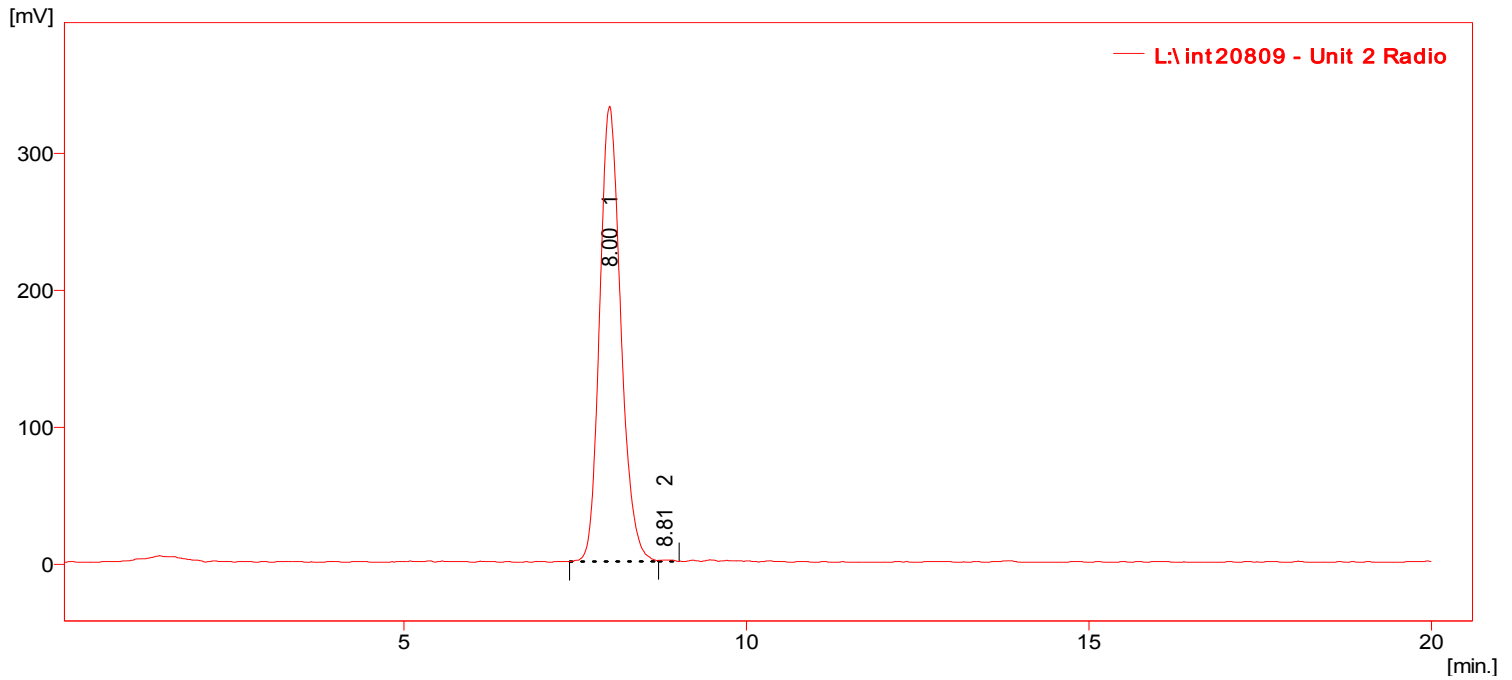
Sample Info:

Sample ID	:	Amount	: 0
Sample	:	ISTD Amount	: 0
Inj. Volume [mL]	: 0	Dilution	: 1

Method : unit2-20minrun By : Administrator

Description : Radiochemical trace of 3H material co-injected with standard

Created : 8/8/2007 9:12 AM Modified : 4/16/2014 9:24 AM



Result Table (Uncal - L:\int20809 - Unit 2 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		8.00	7135.014	332.37	99.80	99.7	0.33	3259	65171		1.18	
2		8.81	14.246	0.98	0.20	0.3	0.26	6527	130543	1.62	1.52	
	Total		7149.260	333.36	100.00	100.0						

MT-1919
(R,S)-Warfarin, [3H]-
Lot 211-045-0089-A-20090311-NT

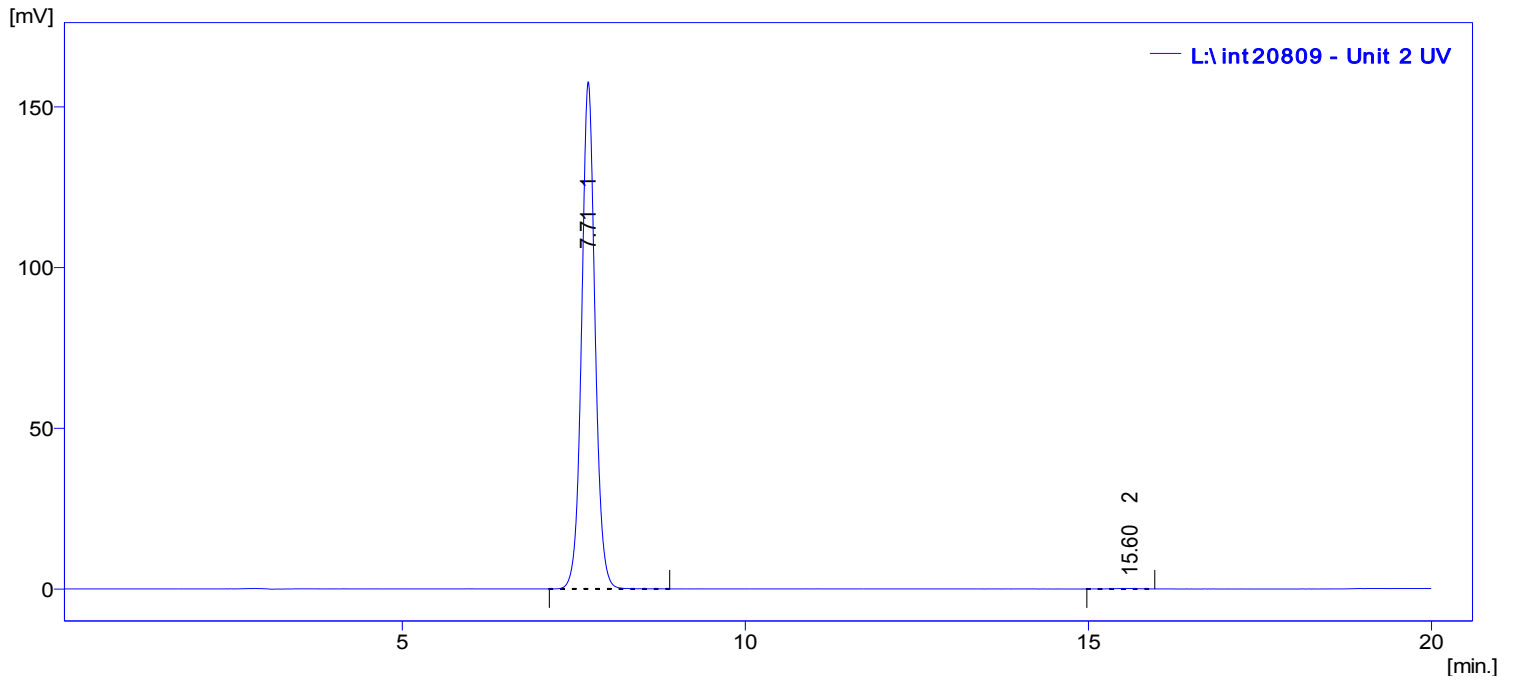
Chromatogram Info:

File Name	: L:\int20809	File Created	: 4/16/2014 9:07:50 AM
Origin	: Acquired, Acquisition started 12/1/2010 11:57:28 AM	Acquired Date	: 12/1/2010 12:17:27 PM
Project	: Work1	By	: Administrator

Sample Info:

Sample ID	:	Amount	: 0
Sample	:	ISTD Amount	: 0
Inj. Volume [mL]	: 0	Dilution	: 1

Method	: unit2-20minrun	By	: Administrator
Description	: UV trace of 3H material co-injected with standard		
Created	: 8/8/2007 9:12 AM	Modified	: 4/16/2014 9:22 AM



Result Table (Uncal - L:\int20809 - Unit 2 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		7.71	2156.033	157.77	99.85	99.9	0.21	7468	149352		1.05	
2		15.60	3.321	0.13	0.15	0.1	0.36	10603	212055	16.44	0.80	
	Total		2159.354	157.90	100.00	100.0						

MT-1919
(R,S)-Warfarin, [3H]-
Lot 211-045-0089-A-20090311-NT

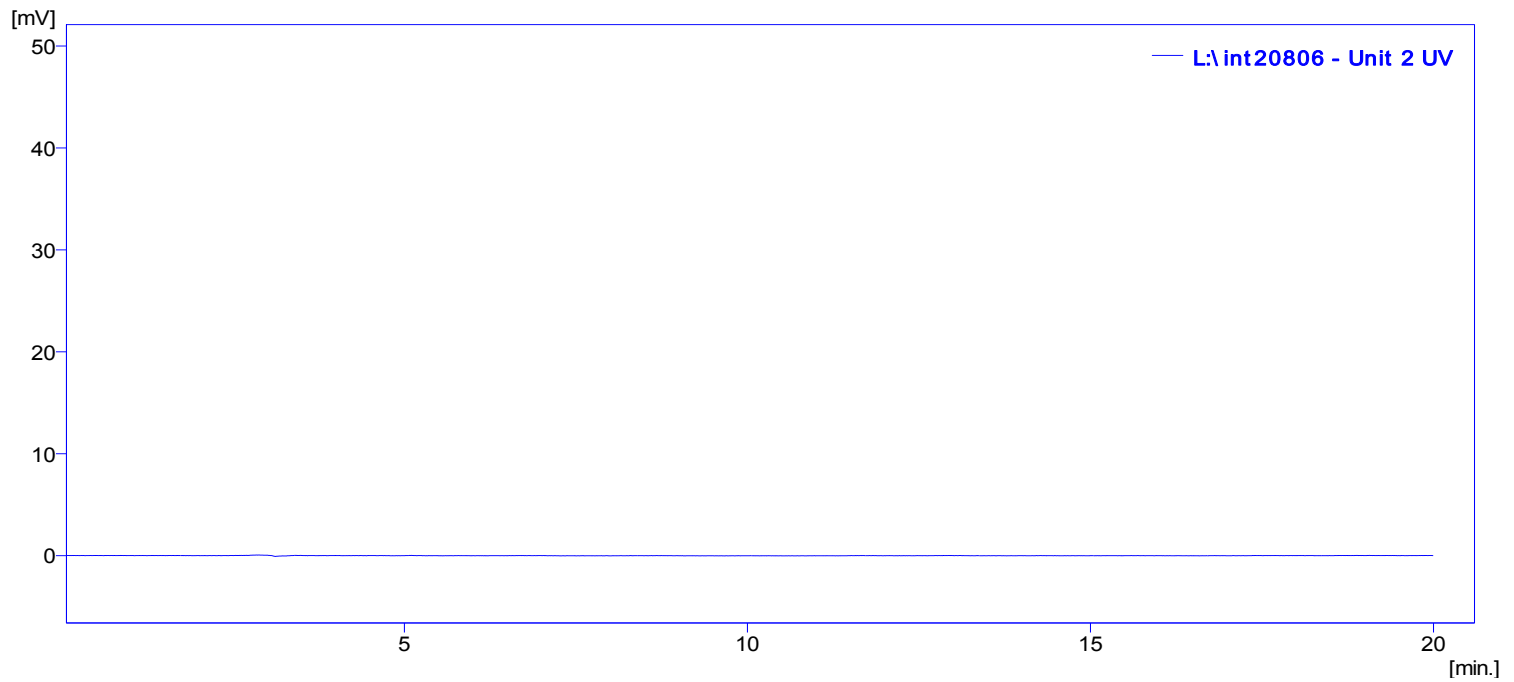
Chromatogram Info:

File Name : L:\int20806 File Created : 4/16/2014 9:07:53 AM
 Origin : Acquired, Acquisition started 12/1/2010 10:28:16 AM Acquired Date : 12/1/2010 10:48:16 AM
 Project : Work1 By : Administrator

Sample Info:

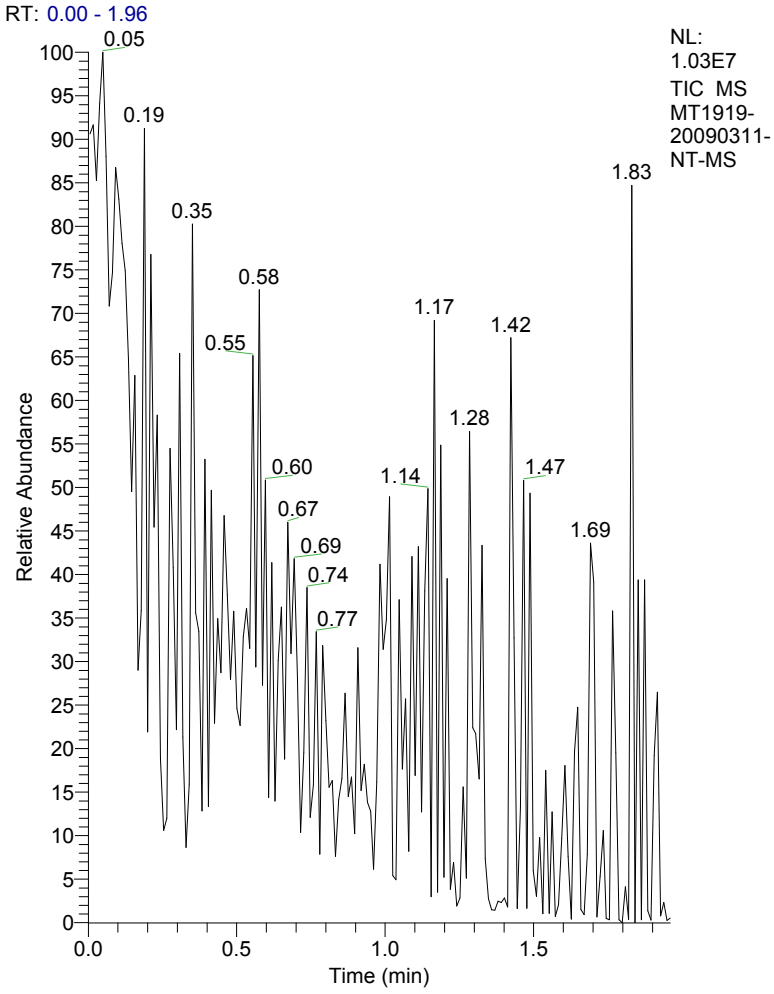
Sample ID : Amount : 0
 Sample : ISTD Amount : 0
 Inj. Volume [mL] : 0 Dilution : 1

Method : unit2-20minrun By : Administrator
 Description : UV trace of blank injection
 Created : 8/8/2007 9:12 AM Modified : 4/16/2014 9:25 AM



Result Table (Uncal - L:\int20806 - Unit 2 UV)

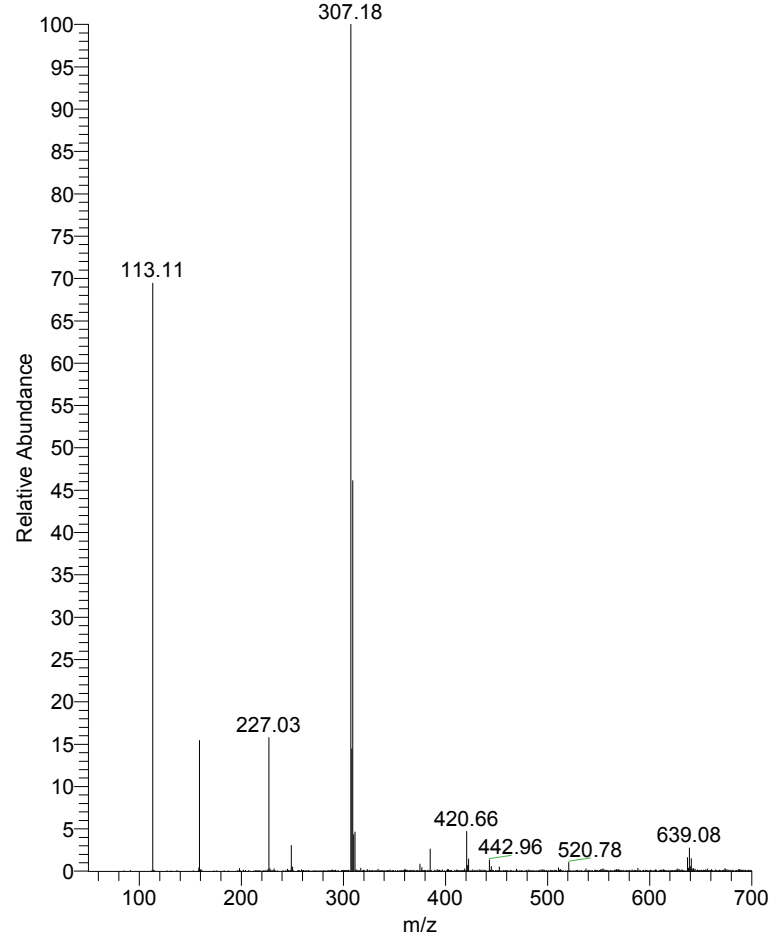
Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	W05 [min]	Efficiency [th.pl]	Eff/l [t.p./m]	Resolution [-]	Symmetry/Tailing [-]	Response Factor
No peak to report											



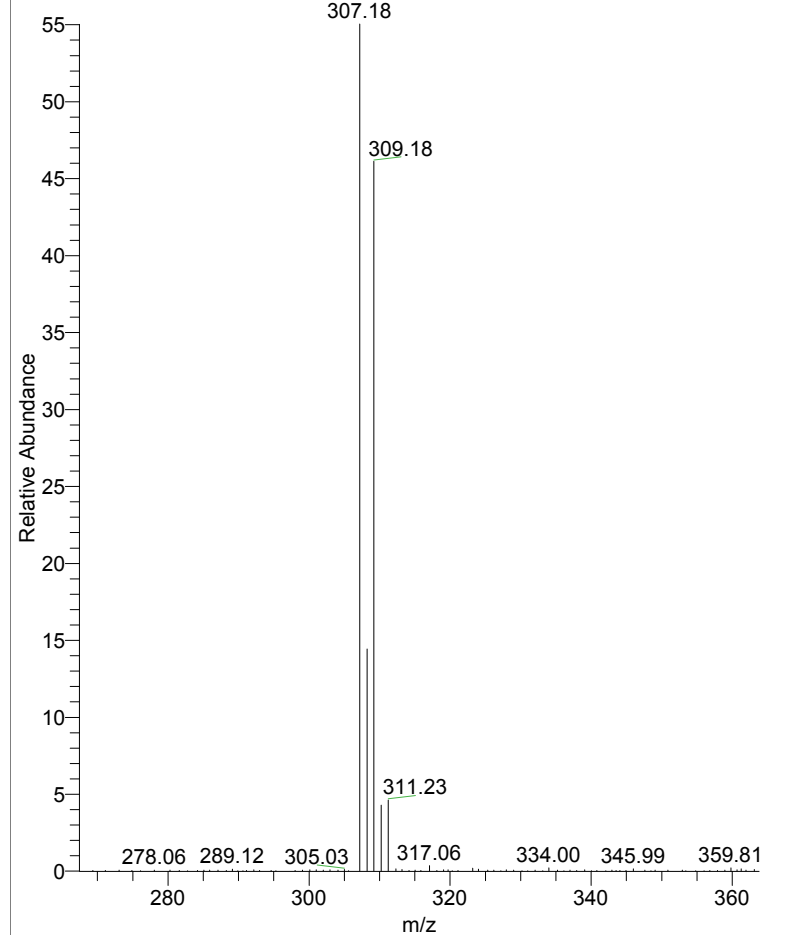
MT1919-20090311-NT-MS#1-183 RT: 0.01-1.96
T: - c NSI Full ms [50.00-700.00]
m/z= 298.46-325.63

m/z	Intensity	Relative
304.11	455.5	0.05
305.03	790.5	0.09
307.18	878589.1	100.00
308.24	126735.4	14.42
309.18	405031.7	46.10
310.22	37582.2	4.28
311.23	40383.8	4.60
312.31	1201.8	0.14
313.17	853.3	0.10
315.05	527.3	0.06
317.06	2974.6	0.34
319.06	599.3	0.07
319.73	699.3	0.08
323.21	1479.6	0.17
324.02	948.9	0.11
325.32	533.1	0.06

MT1919-20090311-NT-MS #1-183 RT: 0.01-1.96 AV: 183 NL: 8.79E5
T: - c NSI Full ms [50.00-700.00]



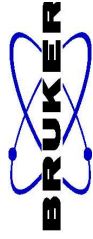
MT1919-20090311-NT-MS #1-183 RT: 0.01-1.96 AV: 183 NL: 8.79E5
T: - c NSI Full ms [50.00-700.00]



MT1919 3H NMR in MeOD
 Batch 20090311-NT

7.329
 7.239
 7.217

2.447
 2.424
 2.401
 2.379
 2.025
 1.986
 1.942
 1.768
 1.723
 1.681



```

NAME          MT1919
EXPNO         1
PROCNO        1
Date_         20090601
Time          20.07
INSTRUM       spect
PROBHD        5 mm DUX 3H-1H
PULPROG       zgdc
TD            16384
SOLVENT       MeOD
NS            5000
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
D11           0.03000000 sec
TD0           1
  
```

```

===== CHANNEL f1 =====
NUC1          3H
P1            10.00 usec
PL1           2.00 dB
SFO1          320.1321857 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         85.00 usec
PL2           0.00 dB
PL12          18.59 dB
SFO2          300.1318534 MHz
SI            32768
SF            320.1305850 MHz

WDW           EM
SSB           0
LB            1.20 Hz
GB            0
PC            1.00
  
```

