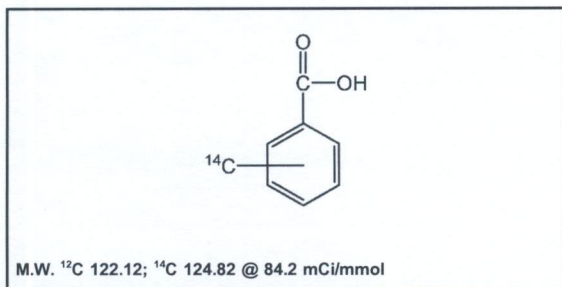




## Product Data Sheet

**MC-1252S**

**Benzoic acid, [ring-<sup>14</sup>C(U)]-**



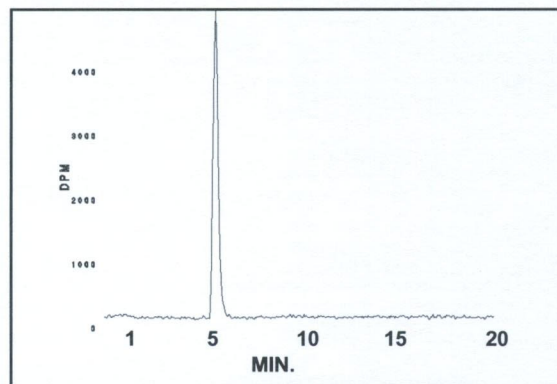
**Lot #:** 742-128-0842-A-20130710-SBA

**Specific Activity:** 84.2 mCi/mmol

**Packaged as:** Solid

**Date of Analysis:** September 16, 2013

**Radiochemical Purity:** 99.3%



HPLC ANALYSIS LOT 742-128-0842-A-20130710-SBA  
File Name: inth3548 Date and Time: 9/16/2013 4:40:42 PM  
Unit 17 Radio

Peak #	Area %	Time	Area
1	99.39	5.72330	9198.91778
2	0.61	6.42670	56.27637
Totals	100.00		9255.19415

**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.

**MC-1252S**

**Benzoic acid, [ring-<sup>14</sup>C(U)]-**

**Lot 742-128-0842-A-20130710-SBA**

**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.

**Benzoic acid, [ring-<sup>14</sup>C(U)]-** concentration was 94.9 µCi/ml.

Volume of standard alone injection was 2.0 µl.

Volume of **Benzoic acid, [ring-<sup>14</sup>C(U)]-** alone injection was 0.5 µl.

Co-injection solution consisted of 0.5 µl **Benzoic acid, [ring-<sup>14</sup>C(U)]-** + 2.0 µl standard.

Volume of co-injection was 2.5 µl.

Volume of blank injection was 2.0 µl.

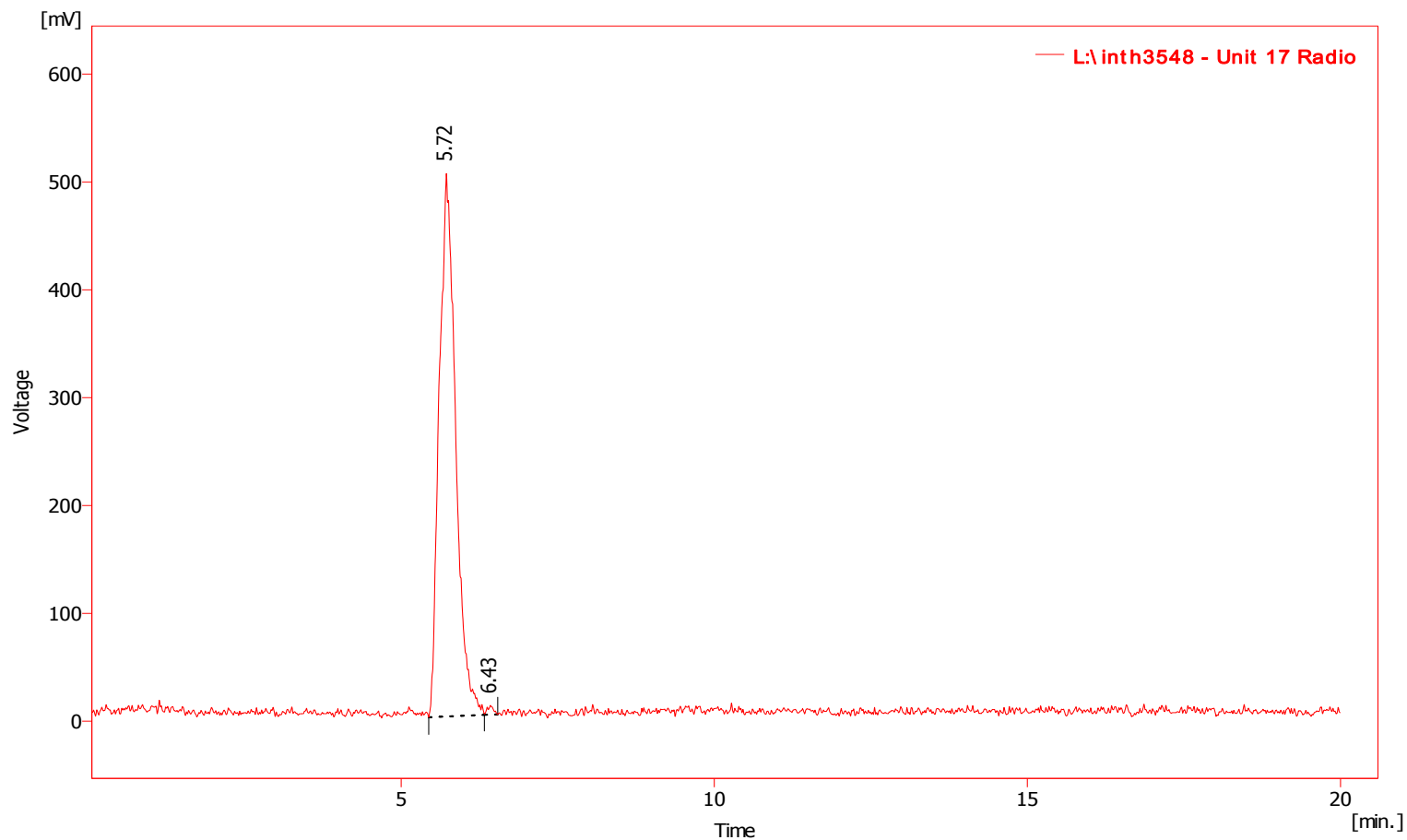
**B) Mass spectrometry – Negative mode**

**C) NMR**

**MC-1252S**  
**Benzoic acid, [ring-14C(U)]-**  
**Lot 742-128-0842-A-20130710-SBA**

## Chromatogram Info:

File Name	: L:\inth3548	File Created	: 9/19/2013 8:31:42 AM
Origin	: Acquired, Acquisition started 9/16/2013 4:20:42 PM	Acquired Date	: 9/16/2013 4:40:42 PM
Project	: Test	By	: Administrator
Method	: Unit17_20_min_run	By	: Administrator
Description	: Radiochemical trace of 14C material alone	Modified	: 9/19/2013 8:46 AM
Created	: 8/9/2007 8:57 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



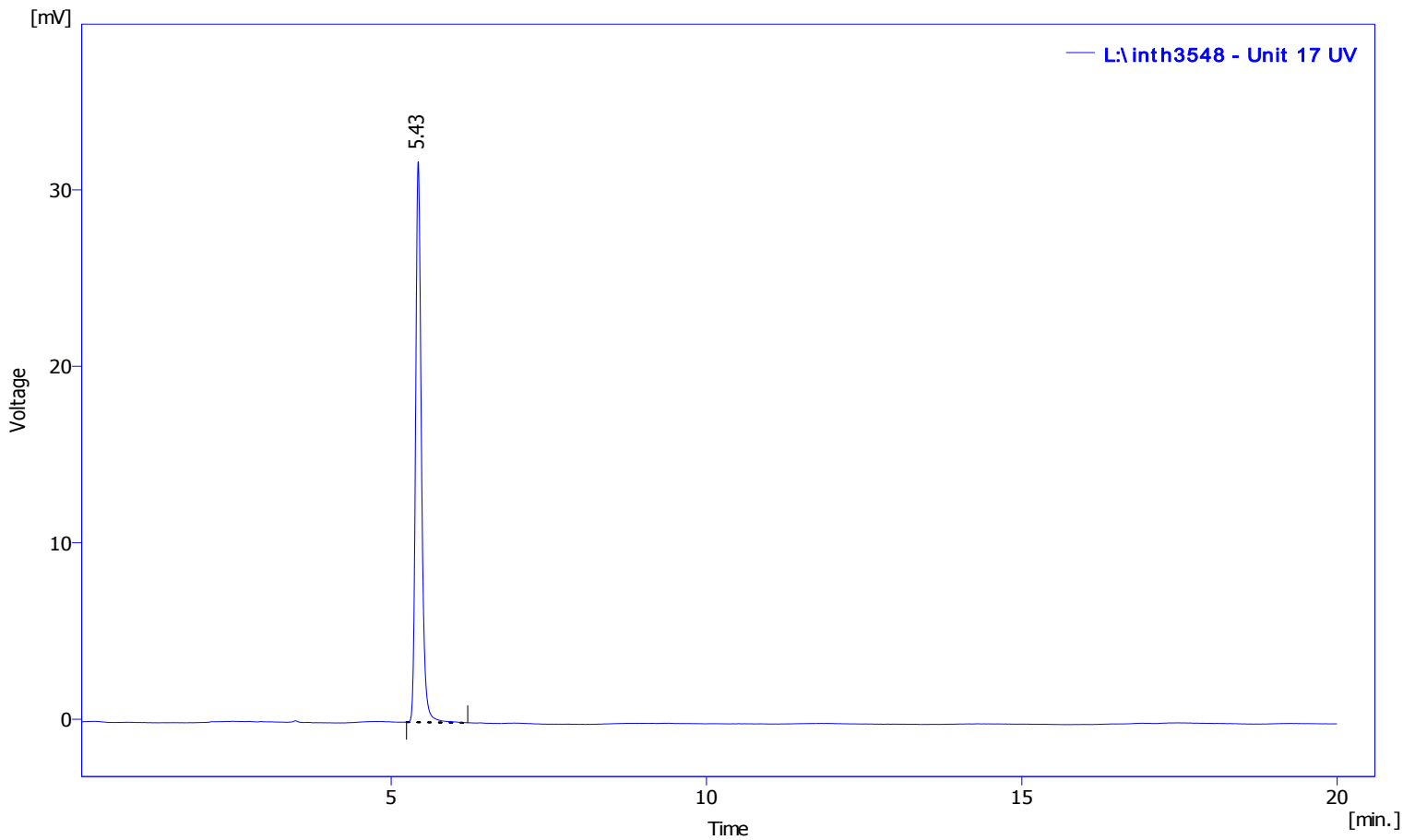
Result Table (Uncal - L:\inth3548 - Unit 17 Radio)

	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.p]
1		5.72	9198.92	503.41	99.39	98.32	1779.06
2		6.43	56.28	8.61	0.61	1.68	20672.43
	Total		9255.19	512.02	100.00	100.00	

**MC-1252S**  
**Benzoic acid, [ring-14C(U)]-**  
**Lot 742-128-0842-A-20130710-SBA**

Chromatogram Info:

File Name	: L:\inth3548	File Created	: 9/19/2013 8:31:42 AM
Origin	: Acquired, Acquisition started 9/16/2013 4:20:42 PM	Acquired Date	: 9/16/2013 4:40:42 PM
Project	: Test	By	: Administrator
Method	: Unit17_20_min_run	By	: Administrator
Description	: UV trace of 14C material alone	Modified	: 9/19/2013 8:48 AM
Created	: 8/9/2007 8:57 AM		
Column	:	Detection	: UV 227nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



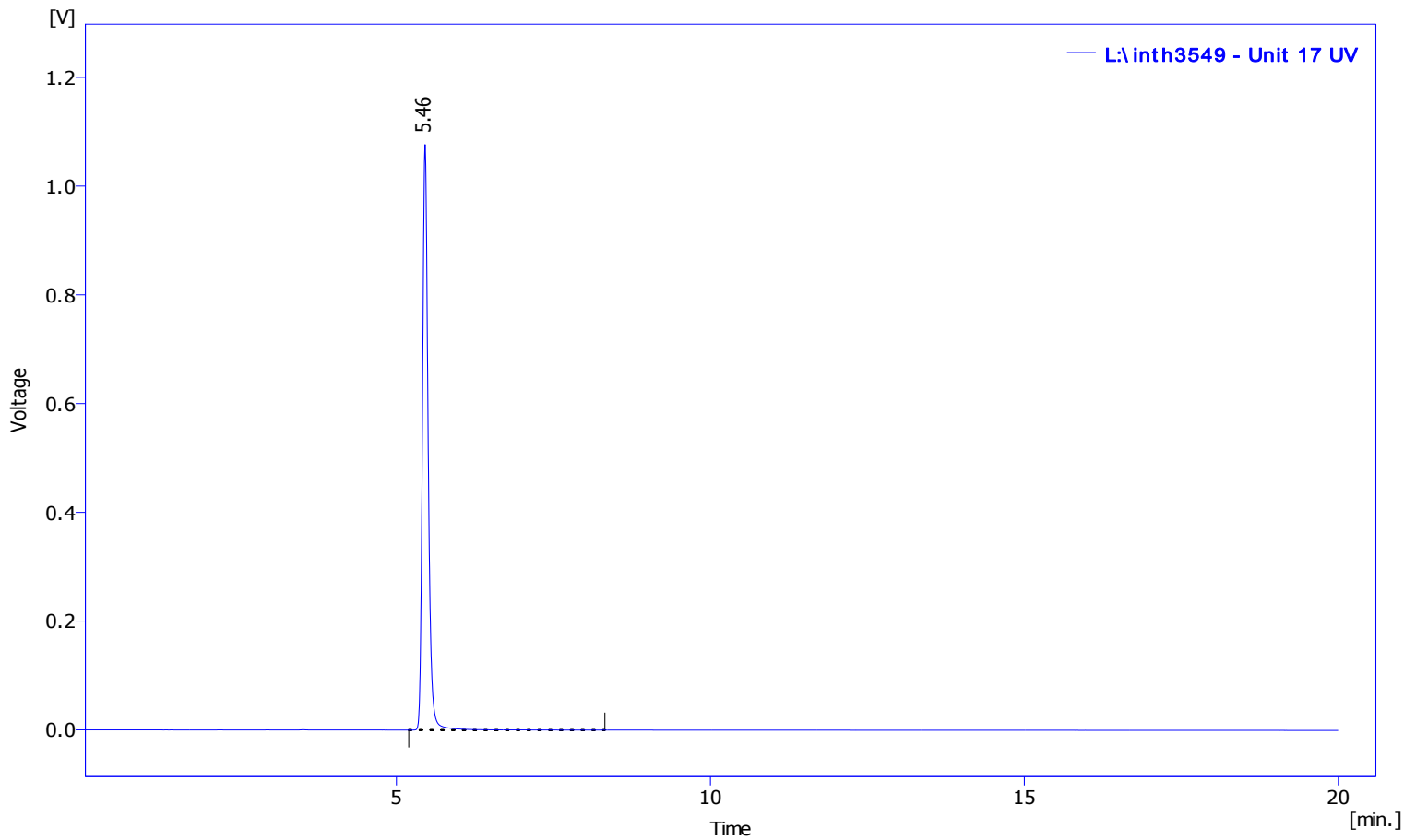
Result Table (Uncal - L:\inth3548 - Unit 17 UV)

	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.p]
1		5.43	204.93	31.77	100.00	100.00	7235.89
		Total	204.93	31.77	100.00	100.00	

**MC-1252S**  
**Benzoic acid, [ring-14C(U)]-**  
**Lot 742-128-0842-A-20130710-SBA**

Chromatogram Info:

File Name	: L:\inth3549	File Created	: 9/19/2013 8:31:42 AM
Origin	: Acquired, Acquisition started 9/18/2013 8:43:37 AM	Acquired Date	: 9/18/2013 9:03:37 AM
Project	: Test	By	: Administrator
Method	: Unit17_20_min_run	By	: Administrator
Description	: UV trace of standard alone	Modified	: 9/19/2013 8:50 AM
Created	: 8/9/2007 8:57 AM		
Column	:	Detection	: UV 227nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\inth3549 - Unit 17 UV)

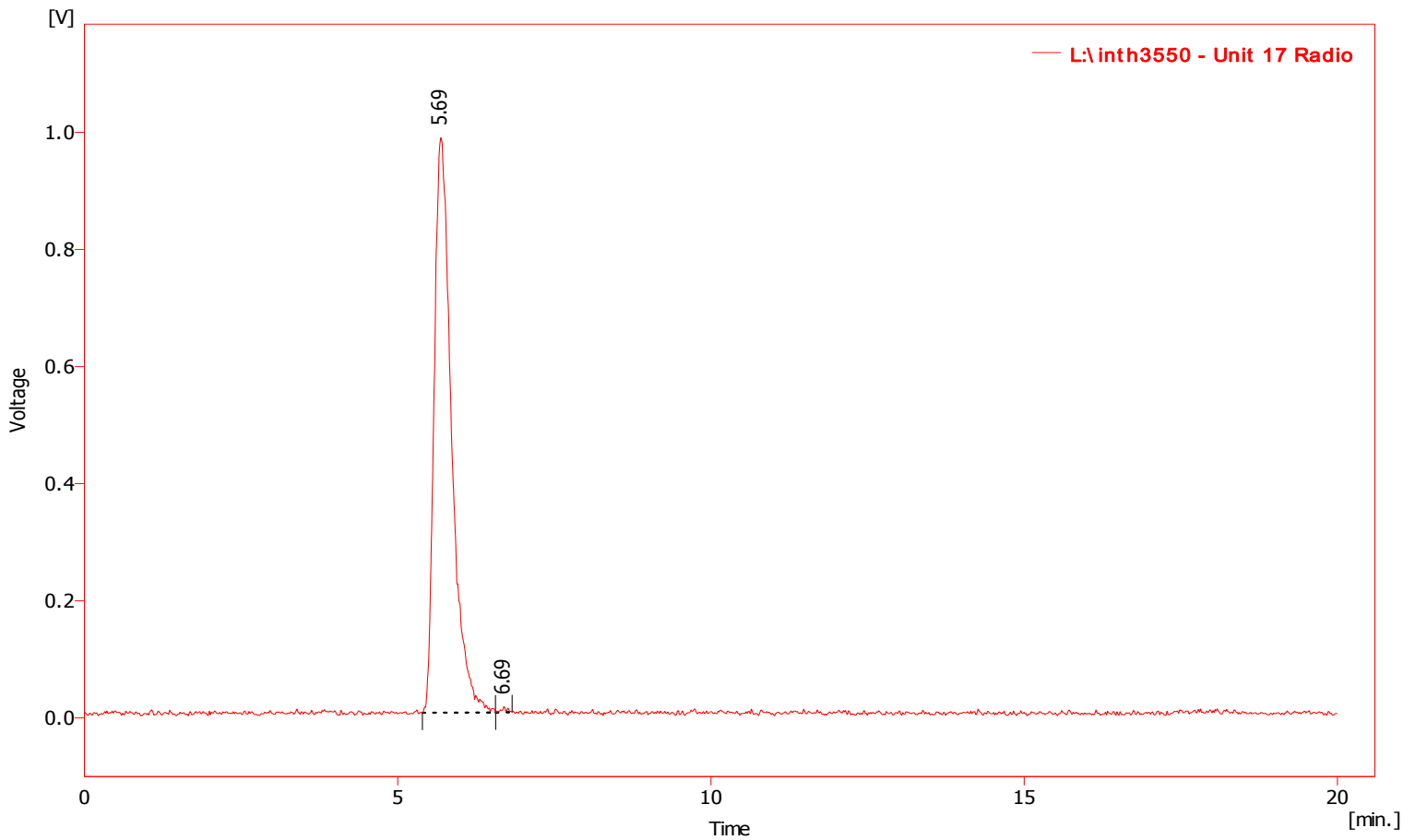
	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.p]
1		5.46	6836.47	1076.69	100.00	100.00	2408.32
		Total	6836.47	1076.69	100.00	100.00	



**MC-1252S**  
**Benzoic acid, [ring-14C(U)]-**  
**Lot 742-128-0842-A-20130710-SBA**

Chromatogram Info:

File Name	: L:\inth3550	File Created	: 9/19/2013 8:31:42 AM
Origin	: Acquired, Acquisition started 9/18/2013 9:17:20 AM	Acquired Date	: 9/18/2013 9:37:19 AM
Project	: Test	By	: Administrator
Method	: Unit17_20_min_run	By	: Administrator
Description	: Radiochemical trace of 14C material co-injected with standard	Modified	: 9/19/2013 8:54 AM
Created	: 8/9/2007 8:57 AM		
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



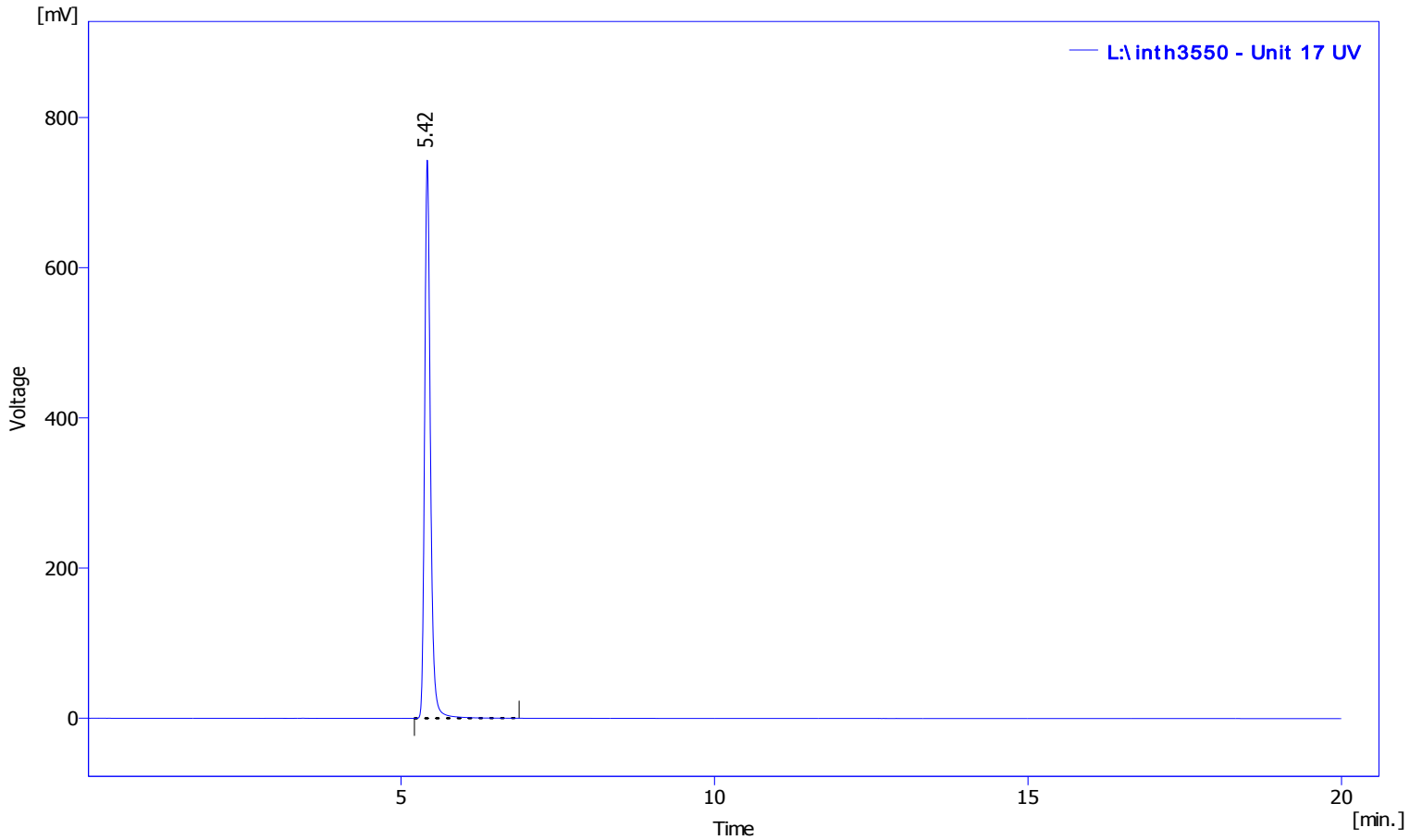
Result Table (Uncal - L:\inth3550 - Unit 17 Radio)

	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.p]
1		5.69	18937.31	981.84	99.71	99.03	1347.36
2		6.69	54.34	9.65	0.29	0.97	14440.46
		Total	18991.66	991.49	100.00	100.00	

**MC-1252S**  
**Benzoic acid, [ring-14C(U)]-**  
**Lot 742-128-0842-A-20130710-SBA**

Chromatogram Info:

File Name	: L:\inth3550	File Created	: 9/19/2013 8:31:42 AM
Origin	: Acquired, Acquisition started 9/18/2013 9:17:20 AM	Acquired Date	: 9/18/2013 9:37:19 AM
Project	: Test	By	: Administrator
Method	: Unit17_20_min_run	By	: Administrator
Description	: UV trace of 14C material co-injected with standard	Modified	: 9/19/2013 8:53 AM
Created	: 8/9/2007 8:57 AM		
Column	:	Detection	: UV 227nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



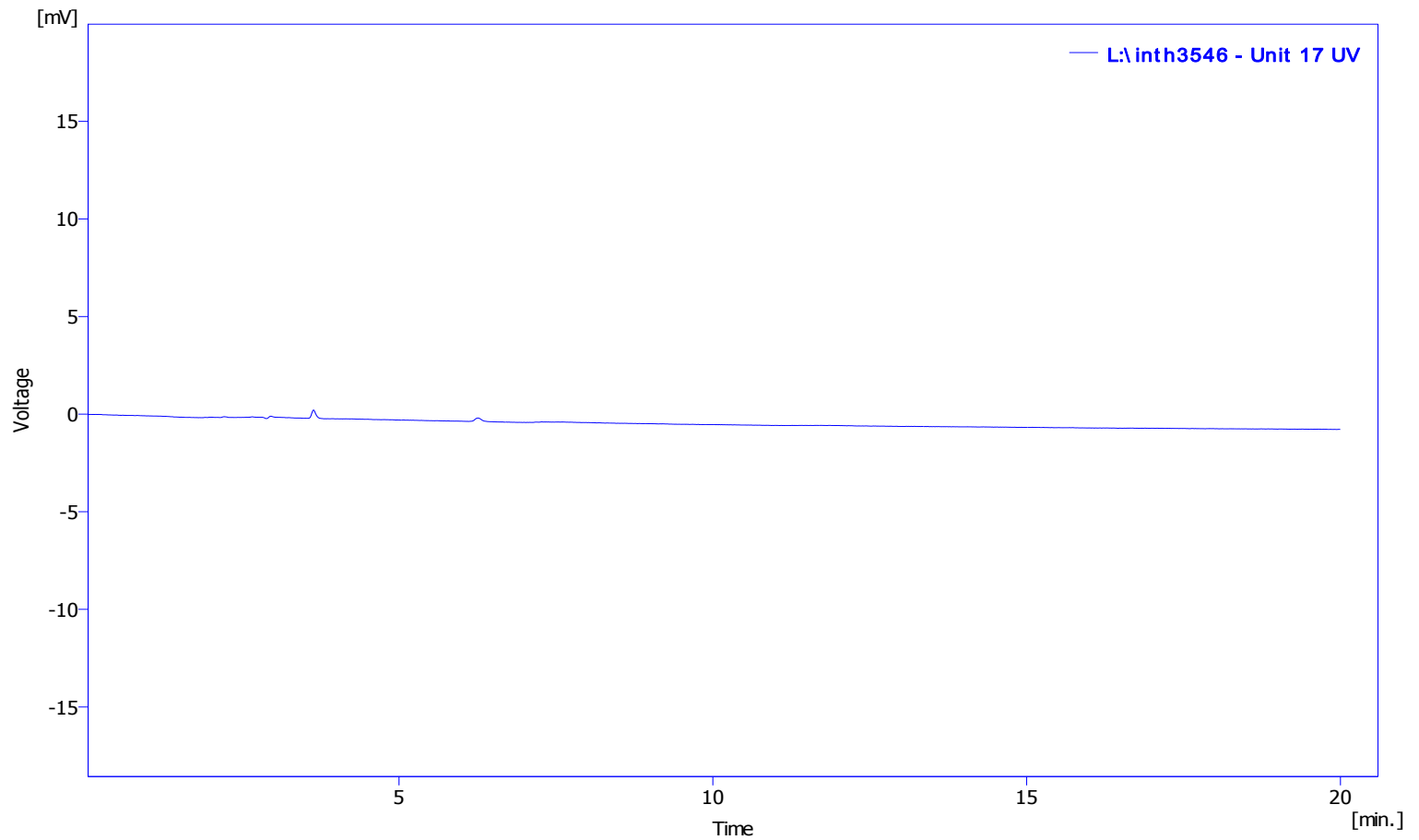
Result Table (Uncal - L:\inth3550 - Unit 17 UV)

	Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.p]
1		5.42	4797.89	743.40	100.00	100.00	4485.87
		Total	4797.89	743.40	100.00	100.00	

**MC-1252S**  
**Benzoic acid, [ring-14C(U)]-**  
**Lot 742-128-0842-A-20130710-SBA**

## Chromatogram Info:

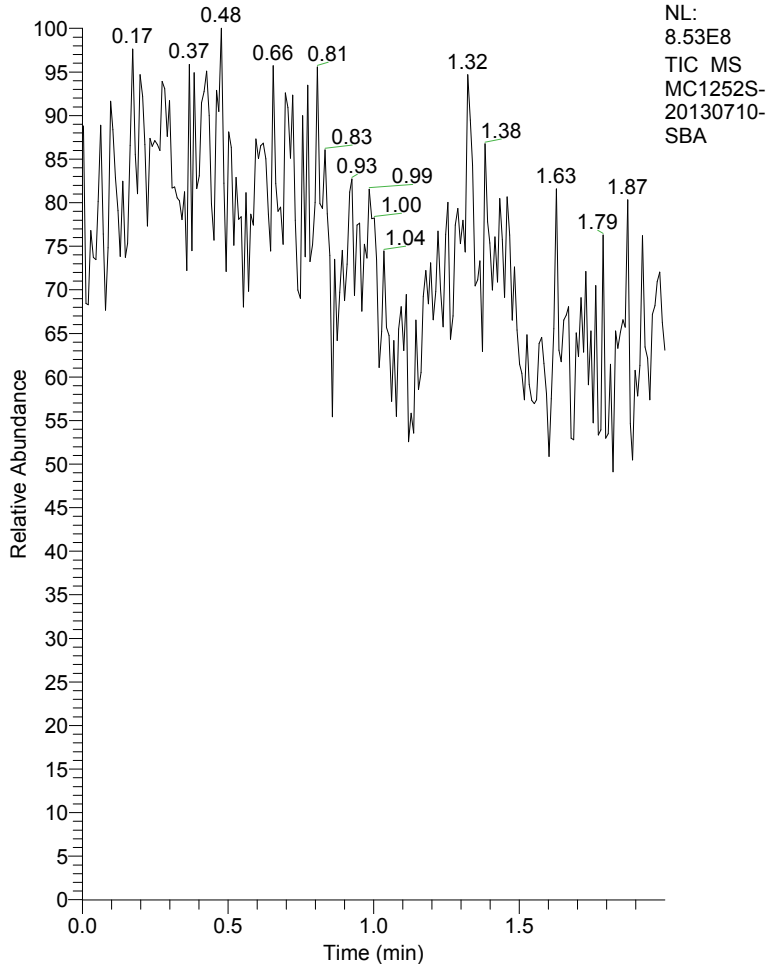
File Name	: L:\inth3546	File Created	: 9/19/2013 8:31:41 AM
Origin	: Acquired, Acquisition started 9/16/2013 2:07:55 PM	Acquired Date	: 9/16/2013 2:27:54 PM
Project	: Test	By	: Administrator
Method	: Unit17_20_min_run	By	: Administrator
Description	: UV trace of blank injection	Modified	: 9/19/2013 8:55 AM
Created	: 8/9/2007 8:57 AM		
Column	:	Detection	: UV 227nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



*Result Table (Uncal - L:\inth3546 - Unit 17 UV)*

Compound Name	Reten. Time [min]	Area [mV.s]	Height [mV]	Area [%]	Height [%]	Efficiency [th.pl]
No peak to report						

RT: 0.00 - 2.00



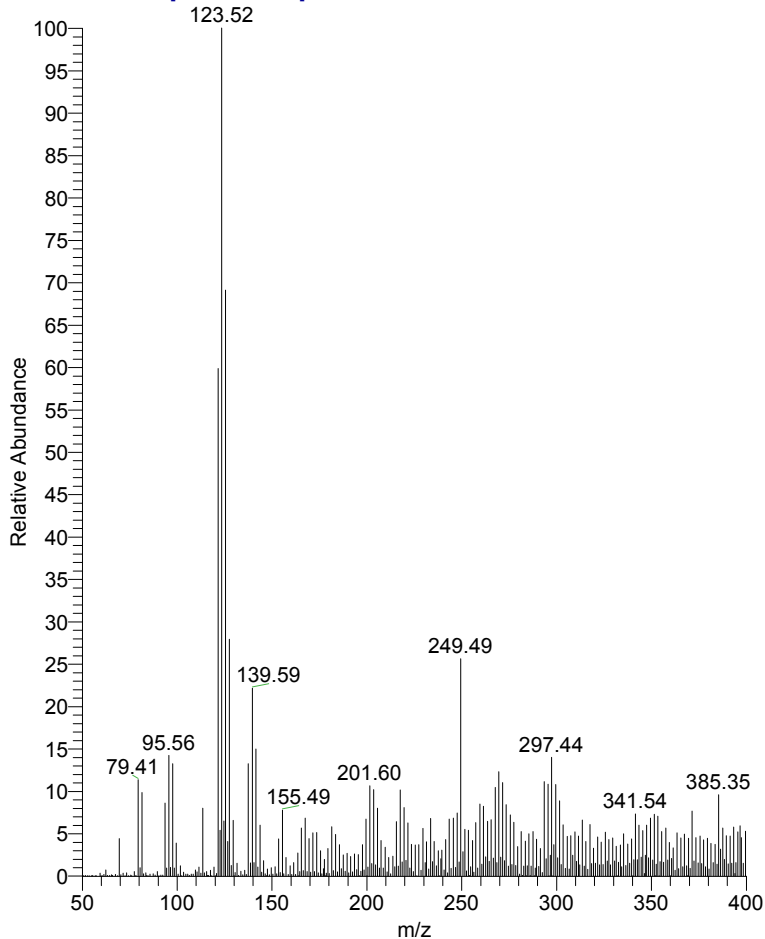
MC1252S-20130710-SBA#1-237 RT: 0.00-2.00

T: - c NSI Full ms [50.00-400.00]

m/z	Intensity	Relative
126.60	1973514.8	4.04
127.51	13633524.2	27.91
128.55	601149.4	1.23
129.52	3197254.6	6.55
130.04	1177.2	0.00
130.61	201900.6	0.41
131.58	733919.0	1.50
132.47	34812.4	0.07
133.55	266682.7	0.55
134.54	67766.2	0.14
135.58	329823.3	0.68
136.51	90949.2	0.19
137.53	6454657.5	13.21
138.62	749574.0	1.53
139.59	10810376.2	22.13
140.54	772805.1	1.58
141.56	7302698.1	14.95
142.54	514057.3	1.05
143.62	2924249.2	5.99
144.53	211232.4	0.43
145.57	882472.9	1.81
146.47	111755.0	0.23
147.12	1799.7	0.00
147.65	387393.0	0.79
148.53	60350.4	0.12

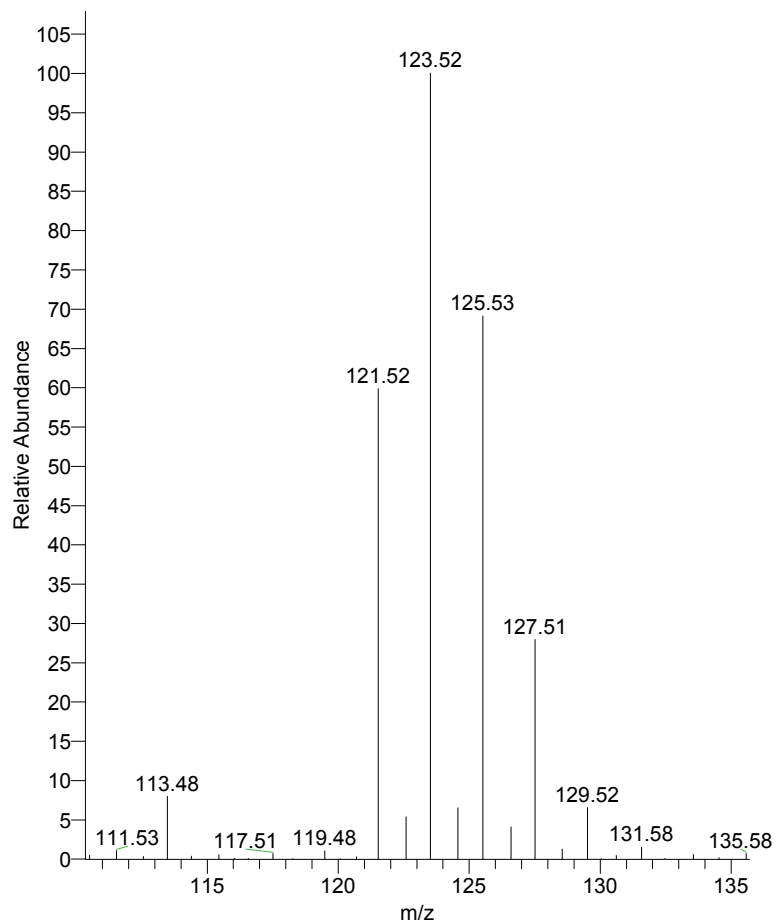
MC1252S-20130710-SBA #1-237 RT: 0.00-2.00 AV: 237 NL: 4.88E7

T: - c NSI Full ms [50.00-400.00]



MC1252S-20130710-SBA #1-237 RT: 0.00-2.00 AV: 237 NL: 4.88E7

T: - c NSI Full ms [50.00-400.00]



MC1252S 1H NMR in MeOD  
Batch 20130710-SBA



8.047  
8.029  
7.625  
7.607  
7.588  
7.502  
7.483  
7.464

NAME MC1252S  
EXPNO 4  
PROCNO 1  
Date\_ 20130923  
Time 15.17  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT MeOD  
NS 256  
DS 2  
SWH 8278.146 Hz  
FIDRES 0.126314 Hz  
AQ 3.9584243 sec  
RG 4  
DW 60.400 usec  
DE 6.50 usec  
TE 294.4 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.00 usec  
PL1 -1.00 dB  
PL1W 10.75174427 W  
SF01 400.1324710 MHz  
SI 32768  
SF 400.1300000 MHz  
WDW no  
SSB 0  
LB 0.00 Hz  
GB 0  
PC 1.00

