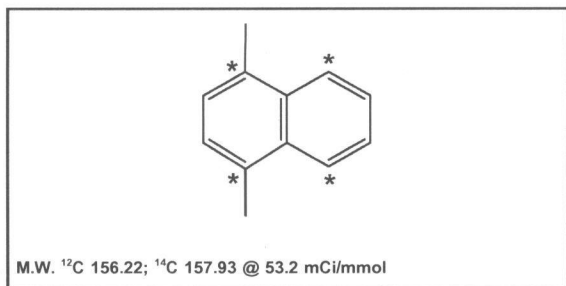




Product Data Sheet

MC-2422

1,4-Dimethylnaphthalene, [1,4,5,8-¹⁴C]-



Lot #: 648-075-0532-A-20101115-JH

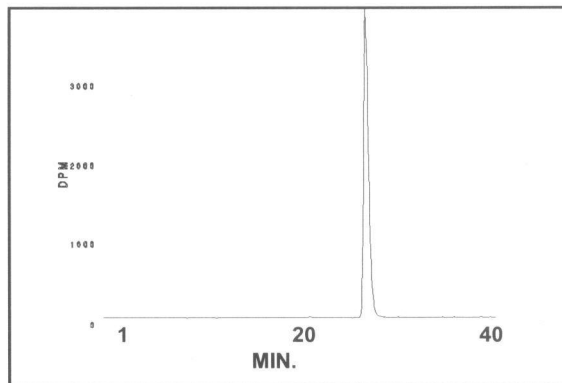
Specific Activity: 53.2 mCi/mmol

Concentration: 0.050 mCi/ml; 148.43 μ g/ml

Packaged as: Methanol solution

Date of Analysis: November 18, 2010

Radiochemical Purity: 99.8%



HPLC ANALYSIS LOT 648-075-0532-A-20101115-JH
File Name: intrn2835 Date and Time: 11/18/2010 10:16:18
Unit 21 Radio

Peak #	Area %	Time	Area
1	0.16	21.10000	21.23383
2	99.81	26.75670	13588.94978
3	0.04	28.69330	5.00444
Totals	100.00		13615.18805

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-2422

1,4-Dimethylnaphthalene, [1,4,5,8-¹⁴C]-

Lot 648-075-0532-A-20101115-JH

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.

1,4-Dimethylnaphthalene, [1,4,5,8-¹⁴C]- concentration was 50.0 µCi/ml.

Volume of standard alone injection was 3.0 µl.

Volume of **1,4-Dimethylnaphthalene, [1,4,5,8-¹⁴C]-** alone injection was 1.0 µl.

Co-injection solution consisted of 1.0 µl **1,4-Dimethylnaphthalene, [1,4,5,8-¹⁴C]-** + 3.0 µl standard.

Volume of co-injection was 4.0 µl.

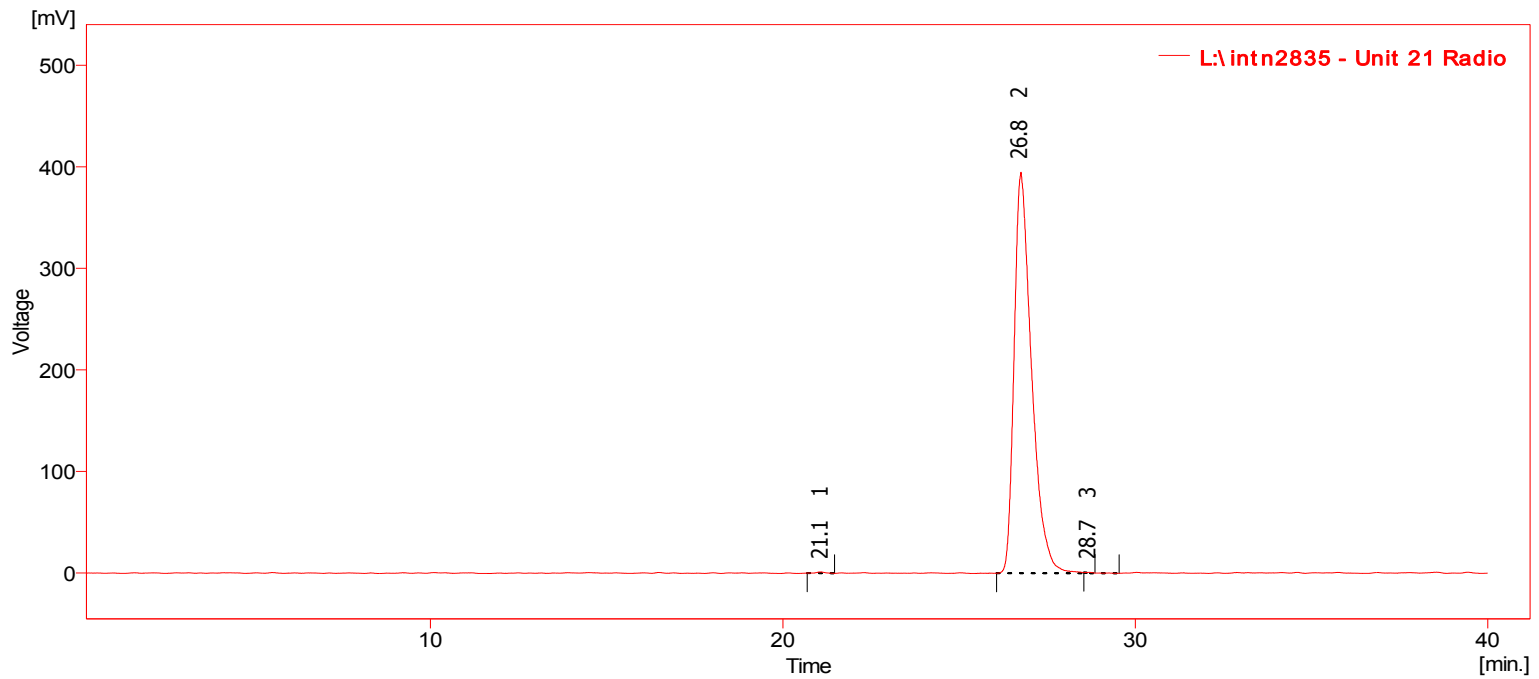
Volume of blank injection was 1.0 µl.

B) Mass spectrometry - Positive mode

MC-2422
1,4-Dimethylnaphthalene, [1,4,5,8-¹⁴C]-
Lot 648-075-0532-A-20101115-JH

Chromatogram Info:

File Name	: L:\intn2835	File Created	: 5/28/2014 11:34:08 AM
Origin	: Acquired, Acquisition started 11/18/2010 9:36:19 AM	Acquired Date	: 11/18/2010 10:16:18 AM
Project	: Work1	By	: Administrator
Method	: Unit_21_40_min_run	By	: Administrator
Description	: Radiochemical trace of ¹⁴ C material alone		
Created	: 4/17/2008 10:21 AM	Modified	: 5/28/2014 11:50 AM
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



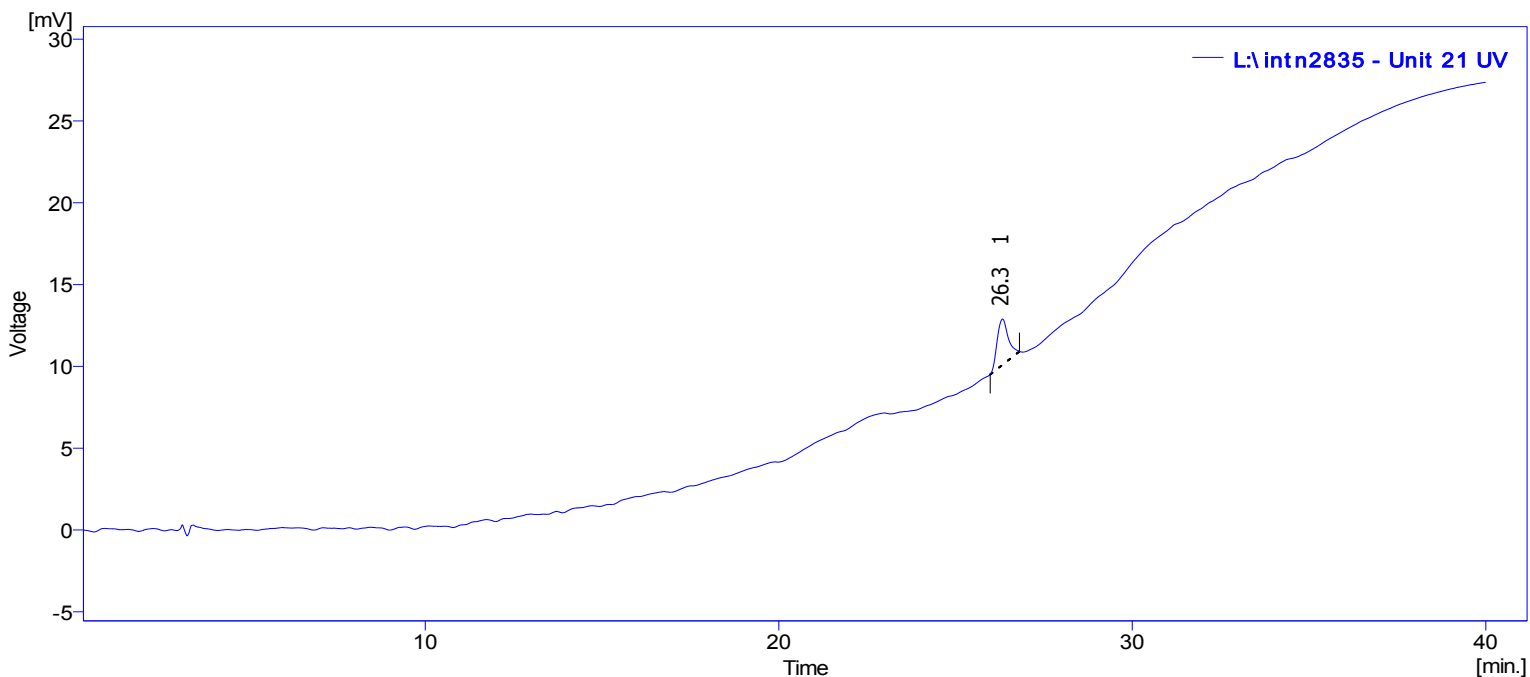
Result Table (Uncal - L:\intn2835 - Unit 21 Radio)

	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		21.10	21.234	1.33	0.16	0.3	0.21	54195	1083895		0.86	
2		26.76	13588.950	394.94	99.81	99.5	0.52	14668	293357	9.10	2.51	
3		28.69	5.004	0.53	0.04	0.1	0.15	212036	4240713	3.43	0.92	
	Total		13615.188	396.79	100.00	100.0						

MC-2422
1,4-Dimethylnaphthalene, [1,4,5,8-14C]-
Lot 648-075-0532-A-20101115-JH

Chromatogram Info:

File Name	: L:\intn2835	File Created	: 5/28/2014 11:34:08 AM
Origin	: Acquired, Acquisition started 11/18/2010 9:36:19 AM	Acquired Date	: 11/18/2010 10:16:18 AM
Project	: Work1	By	: Administrator
Method	: Unit_21_40_min_run	By	: Administrator
Description	: UV trace of 14C material alone		
Created	: 4/17/2008 10:21 AM	Modified	: 5/28/2014 11:35 AM
Column	:	Detection	: UV 254nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\intn2835 - Unit 21 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	26.33	60.901	2.80	100.00	100.0	0.36	29086	581729		1.24	
Total		60.901	2.80	100.00	100.0						

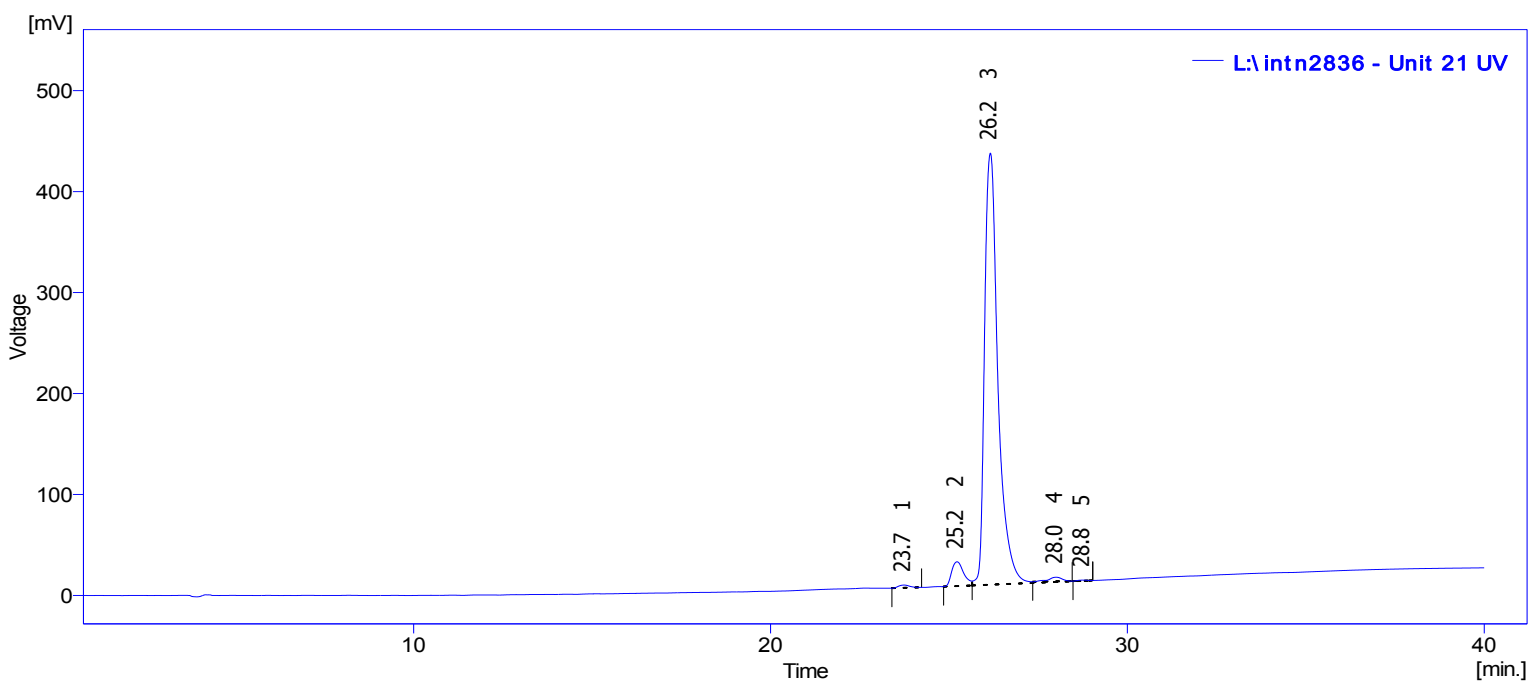
MC-2422
1,4-Dimethylnaphthalene, [1,4,5,8-14C]-
Lot 648-075-0532-A-20101115-JH

Chromatogram Info:

File Name : L:\intn2836 File Created : 5/28/2014 11:34:08 AM
 Origin : Acquired, Acquisition started 11/18/2010 10:27:19 AM Acquired Date : 11/18/2010 11:07:18 AM
 Project : Work1 By : Administrator

Method : Unit_21_40_min_run By : Administrator
 Description : UV trace of standard material alone
 Created : 4/17/2008 10:21 AM Modified : 5/28/2014 11:51 AM

Column : Detection : UV 254nm
 Mobile Phase : Temperature :
 Flow Rate : Pressure :
 Note :



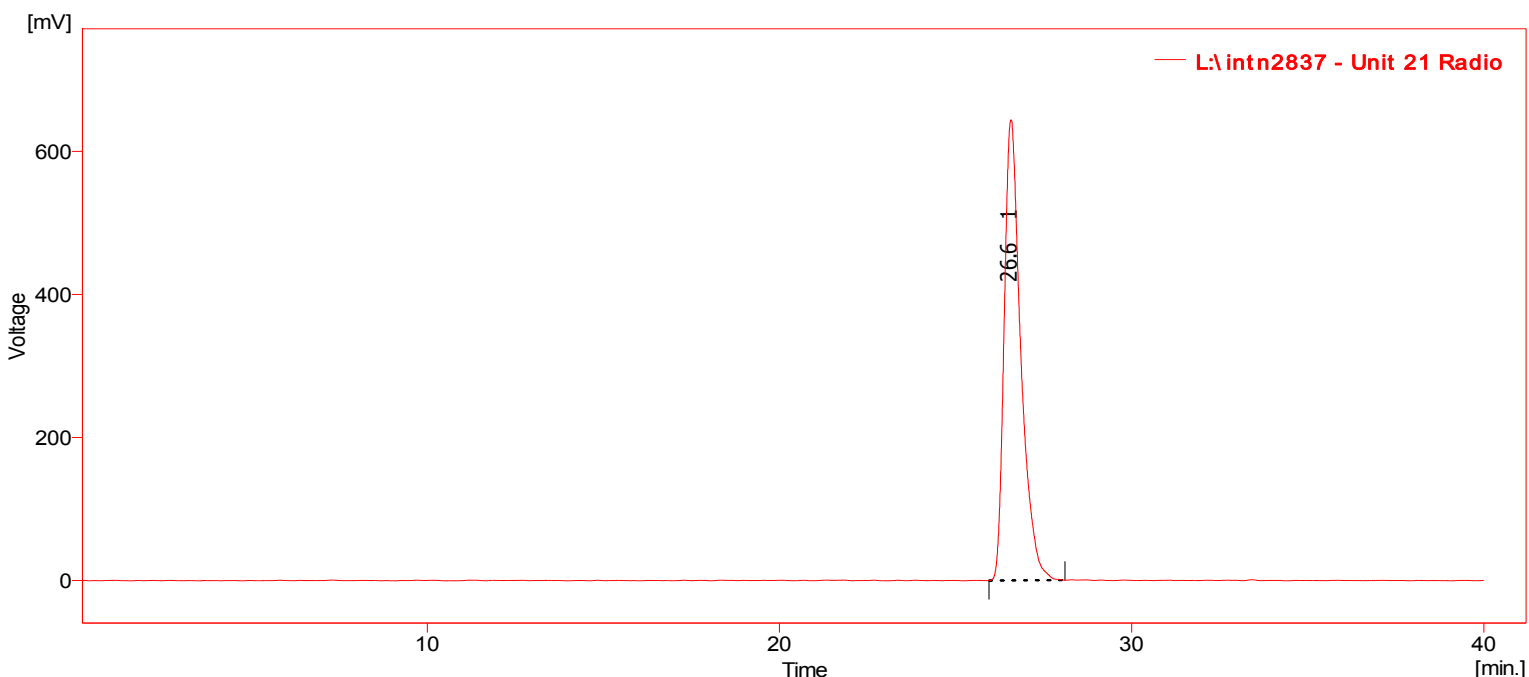
Result Table (Uncal - L:\intn2836 - Unit 21 UV)

	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		23.74	60.330	2.77	0.51	0.6	0.36	24551	491019		1.19	
2		25.23	565.254	24.05	4.74	5.2	0.37	25753	515058	2.41	1.25	
3		26.16	11176.900	427.45	93.71	93.1	0.38	25801	516015	1.46	3.31	
4		28.00	112.347	4.12	0.94	0.9	0.38	30606	612122	2.85	0.83	
5		28.76	12.338	0.67	0.10	0.1	0.34	39640	792793	1.26	0.94	
	Total		11927.169	459.06	100.00	100.0						

MC-2422
1,4-Dimethylnaphthalene, [1,4,5,8-14C]-
Lot 648-075-0532-A-20101115-JH

Chromatogram Info:

File Name	: L:\intn2837	File Created	: 5/28/2014 11:34:08 AM
Origin	: Acquired, Acquisition started 11/18/2010 11:14:58 AM	Acquired Date	: 11/18/2010 11:54:57 AM
Project	: Work1	By	: Administrator
Method	: Unit_21_40_min_run	By	: Administrator
Description	: Radiochemical trace of 14C material co-injected with standard		
Created	: 4/17/2008 10:21 AM	Modified	: 5/28/2014 11:52 AM
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\intn2837 - Unit 21 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	26.57	21203.495	644.10	100.00	100.0	0.49	16289	325785		1.47	
Total		21203.495	644.10	100.00	100.0						

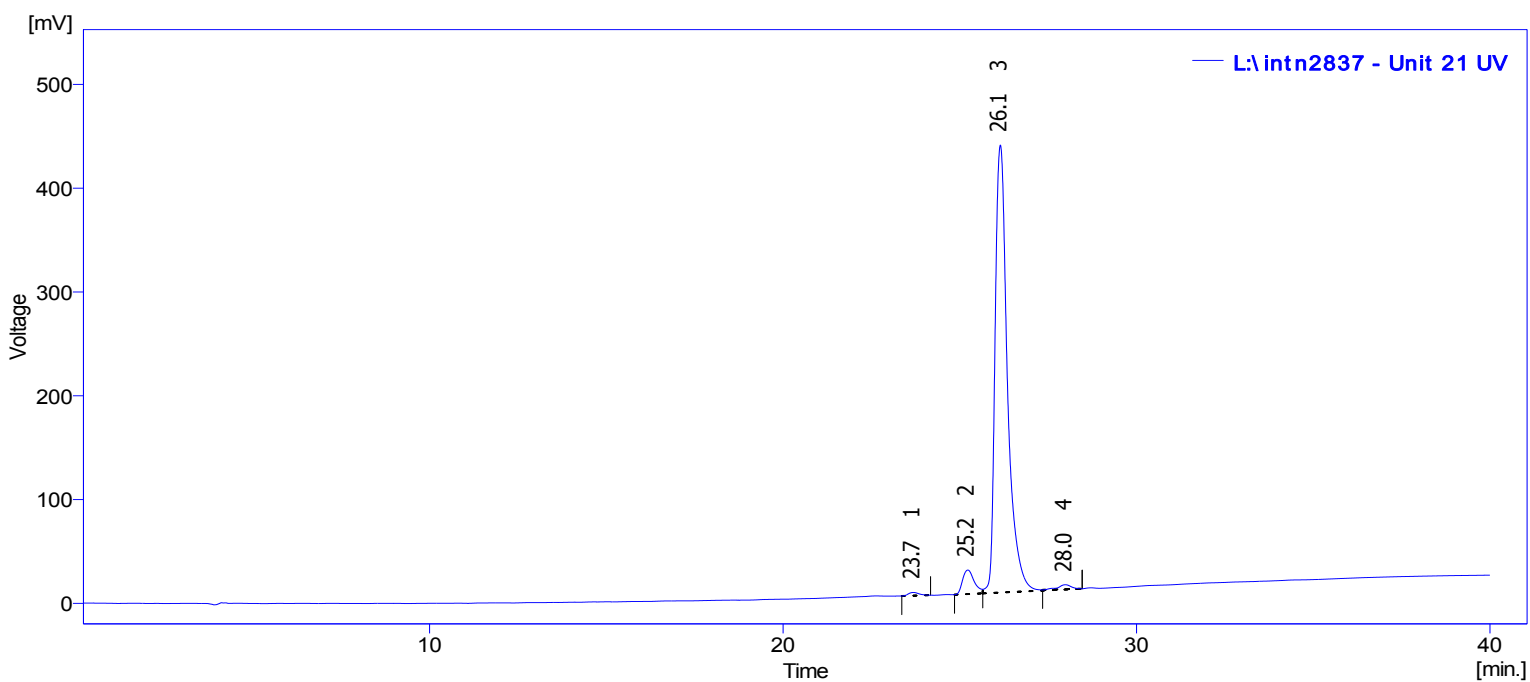
MC-2422
1,4-Dimethylnaphthalene, [1,4,5,8-¹⁴C]-
Lot 648-075-0532-A-20101115-JH

Chromatogram Info:

File Name : L:\intn2837 File Created : 5/28/2014 11:34:08 AM
 Origin : Acquired, Acquisition started 11/18/2010 11:14:58 AM Acquired Date : 11/18/2010 11:54:57 AM
 Project : Work1 By : Administrator

Method : Unit_21_40_min_run By : Administrator
 Description : UV trace of ¹⁴C material co-injected with standard
 Created : 4/17/2008 10:21 AM Modified : 5/28/2014 11:52 AM

Column : Detection : UV 254nm
 Mobile Phase : Temperature :
 Flow Rate : Pressure :
 Note :



Result Table (Uncal - L:\intn2837 - Unit 21 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		23.69	64.393	3.07	0.57	0.7	0.34	26888	537762		1.28	
2		25.23	530.535	23.17	4.72	5.0	0.36	27203	544070	2.60	1.24	
3		26.15	10531.665	431.13	93.70	93.4	0.36	29773	595453	1.51	2.80	
4		27.99	113.440	4.34	1.01	0.9	0.35	34757	695141	3.06	0.84	
	Total		11240.033	461.72	100.00	100.0						

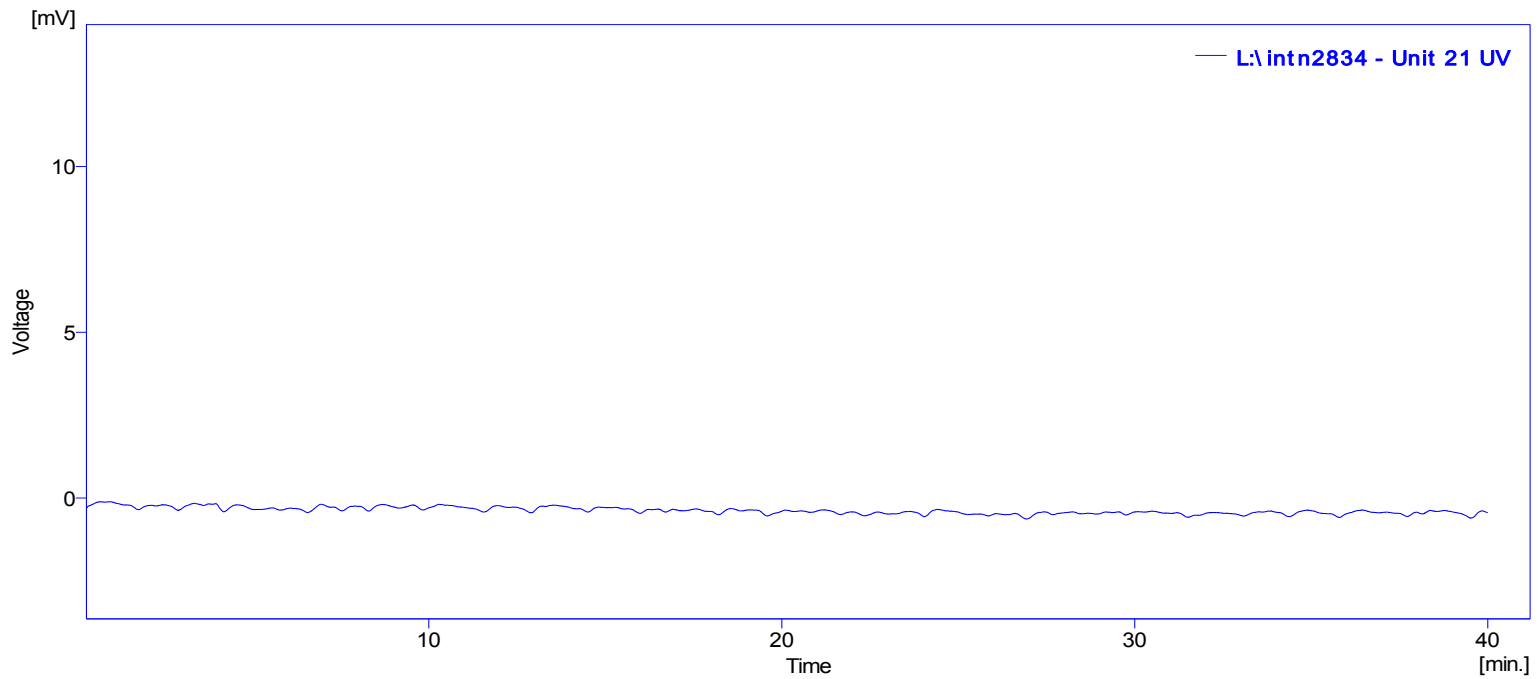
MC-2422
1,4-Dimethylnaphthalene, [1,4,5,8-14C]-
Lot 648-075-0532-A-20101115-JH

Chromatogram Info:

File Name : L:\intn2834 File Created : 5/28/2014 11:34:08 AM
 Origin : Acquired, Acquisition started 11/18/2010 7:55:33 AM Acquired Date : 11/18/2010 8:35:31 AM
 Project : Work1 By : Administrator

Method : Unit_21_40_min_run By : Administrator
 Description : UV trace of blank injection
 Created : 4/17/2008 10:21 AM Modified : 5/28/2014 11:36 AM

Column : Detection : UV 254nm
 Mobile Phase : Temperature :
 Flow Rate : Pressure :
 Note :



Result Table (Uncal - L:\intn2834 - Unit 21 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											

File : C:\HPCHEM1\DATA\MC10087X.D
Operator : aa
Acquired : 18 Nov 2010 13:39 using AcqMethod 2-F-PYR
Instrument : GC/MS Ins
Sample Name: 20101115-jh
Misc Info : 1,4-dimethyl naphthalene
Vial Number: 1

