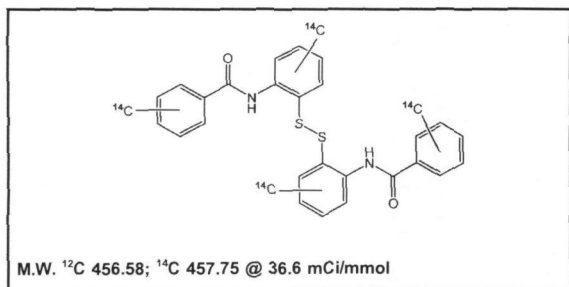




Product Data Sheet

MC-2351

2,2'-Dithiobisbenzanilide, [phenyl-¹⁴C(U)]-



Lot #: 198-026-0366-A-20100609-DR

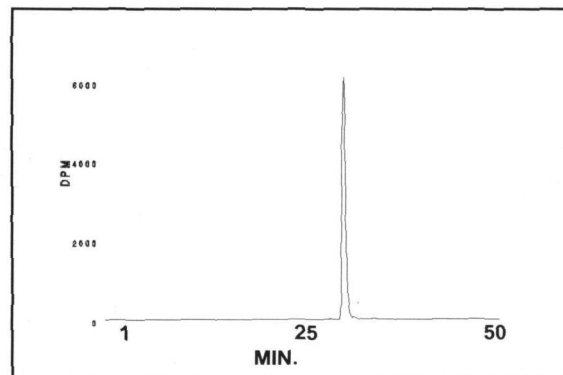
Specific Activity: 36.6 mCi/mmol

Concentration: 0.1 mCi/ml; 1.25 mg/ml

Packaged in: Ethanol : water (1 : 1) solution

Date of Analysis: June 15, 2010

Radiochemical Purity: 98.9%



HPLC ANALYSIS LOT 198-026-0366-A-20100609-DR
File Name: int11821 Date and Time: 6/15/2010 3:44:19 PM
Unit 21 Radio

Peak #	Area %	Time	Area
1	0.27	28.72330	55.14751
2	98.93	30.29330	20294.17275
3	0.29	31.50670	60.00331
4	0.10	33.52000	21.37867
5	0.40	33.99330	82.70551
Totals	100.00		20513.40775

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-2351

2,2'-Dithiobisbenzanilide, [phenyl-¹⁴C(U)]-

Lot 198-026-0366-A-20100609-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.

2,2'-Dithiobisbenzanilide, [phenyl-¹⁴C(U)]- concentration was 0.1 mCi/ml.

Volume of standard alone injection was 1.0 µl.

Volume of **2,2'-Dithiobisbenzanilide, [phenyl-¹⁴C(U)]-** alone injection was 1.0 µl.

Co-injection solution consisted of 1.0 µl **2,2'-Dithiobisbenzanilide, [phenyl-¹⁴C(U)]-** + 1.0 µl standard.

Volume of co-injection was 2.0 µl.

Volume of blank injection was 1.0 µl.

B) Mass spectrometry - Positive mode

C) NMR

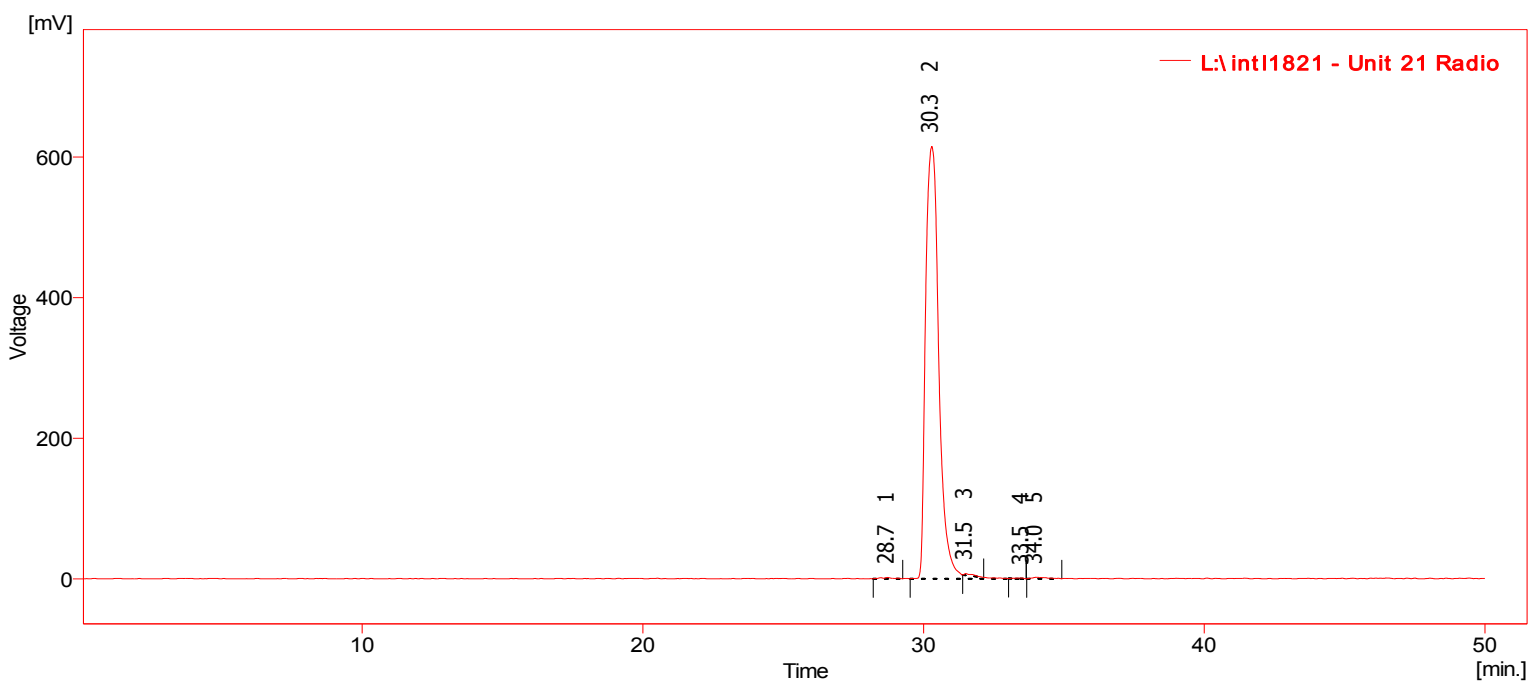
MC-2351
2,2'-Dithiobisbenzanilide, [phenyl-14C(U)]-
Lot 198-026-0366-A-20100609-DR

Chromatogram Info:

File Name : L:\intl1821 File Created : 5/19/2014 3:12:55 PM
 Origin : Acquired, Acquisition started 6/15/2010 2:54:20 PM Acquired Date : 6/15/2010 3:44:19 PM
 Project : Work1 By : Administrator

Method : Unit21_40_min_run By : Administrator
 Description : Radiochemical trace of 14C material alone
 Created : 8/9/2007 1:12 PM Modified : 5/19/2014 3:46 PM

Column : Detection : Radiochemical
 Mobile Phase : Temperature :
 Flow Rate : Pressure :
 Note :



Result Table (Uncal - L:\intl1821 - 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		28.72	55.148	1.93	0.27	0.3	0.22	14034	280681		0.99	
2		30.29	20294.173	614.96	98.93	98.8	0.51	0	0	2.56	2.68	
3		31.51	60.003	2.55	0.29	0.4	0.22	40547	810945	1.96	3.36	
4		33.52	21.379	0.97	0.10	0.2	0.48	55704	1114082	3.39	0.62	
5		33.99	82.706	2.17	0.40	0.3	0.53	14730	294608	0.55	1.95	
	Total		20513.408	622.57	100.00	100.0						

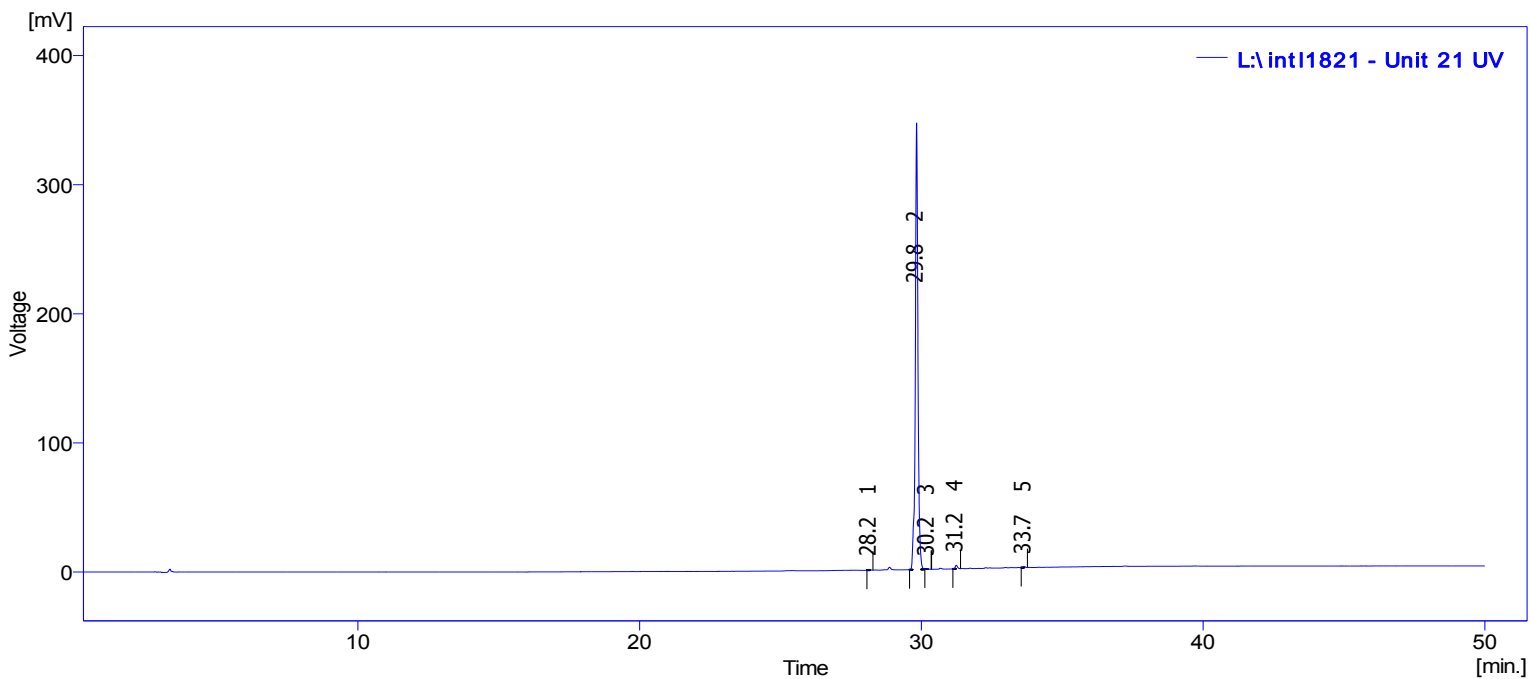
MC-2351
2,2'-Dithiobisbenzanilide, [phenyl-14C(U)]-
Lot 198-026-0366-A-20100609-DR

Chromatogram Info:

File Name : L:\intl1821 File Created : 5/19/2014 3:12:55 PM
 Origin : Acquired, Acquisition started 6/15/2010 2:54:20 PM Acquired Date : 6/15/2010 3:44:19 PM
 Project : Work1 By : Administrator

Method : Unit21_40_min_run By : Administrator
 Description : UV trace of 14C material alone
 Created : 8/9/2007 1:12 PM Modified : 5/19/2014 3:47 PM

Column : Detection : UV 267nm
 Mobile Phase : Temperature :
 Flow Rate : Pressure :
 Note :



Result Table (Uncal - L:\intl1821 - 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		28.17	3.185	0.60	0.14	0.2	0.09	658638	13172751		1.08	
2		29.83	2265.340	345.92	98.97	98.8	0.09	0	0	10.93	1.57	
3		30.23	1.225	0.19	0.05	0.1	0.13	561917	11238336	2.05	0.98	
4		31.24	15.316	2.77	0.67	0.8	0.09	670805	13416095	5.44	1.16	
5		33.65	3.937	0.78	0.17	0.2	0.08	993191	19863829	16.75	1.11	
	Total		2289.003	350.26	100.00	100.0						

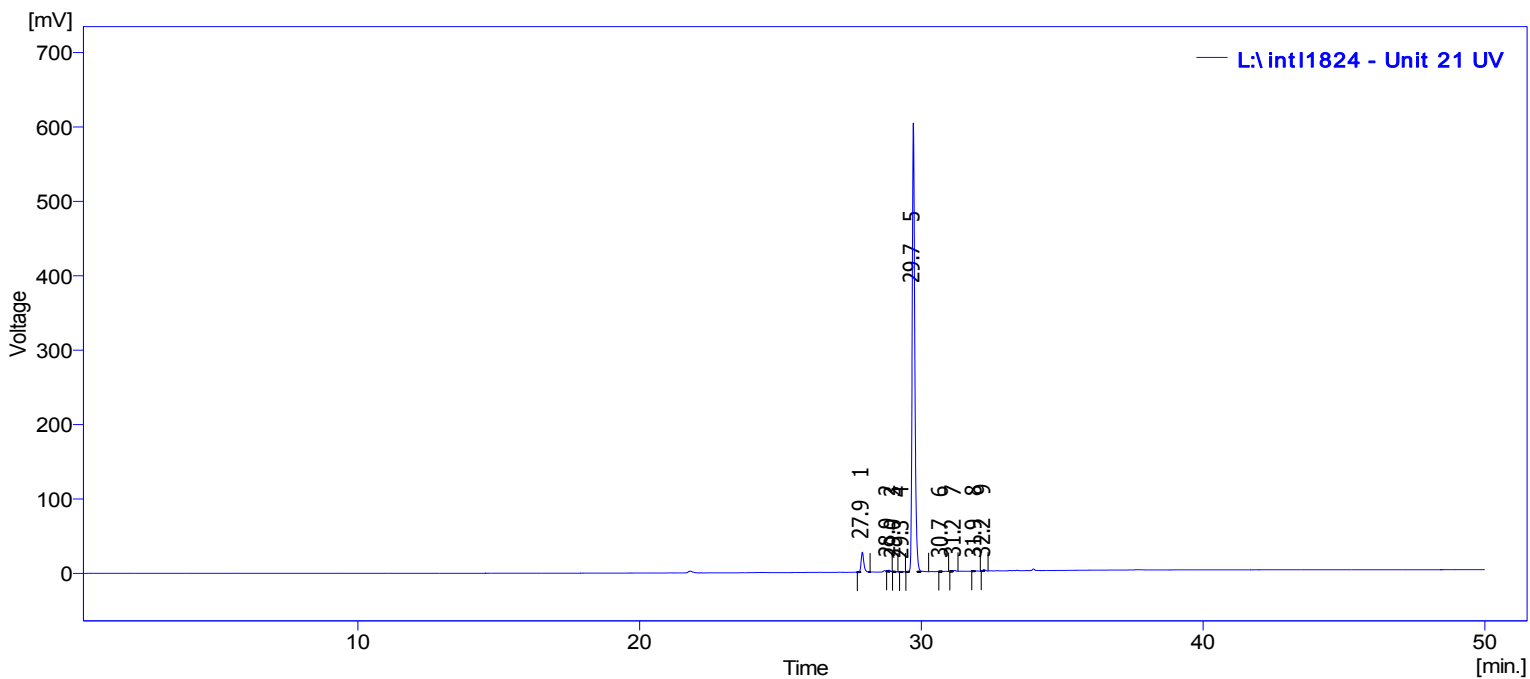
MC-2351
2,2'-Dithiobisbenzanilide, [phenyl-14C(U)]-
Lot 198-026-0366-A-20100609-DR

Chromatogram Info:

File Name : L:\intl1824 File Created : 5/19/2014 3:12:55 PM
 Origin : Acquired, Acquisition started 6/16/2010 7:27:10 AM Acquired Date : 6/16/2010 8:17:09 AM
 Project : Work1 By : Administrator

Method : Unit21_40_min_run By : Administrator
 Description : UV trace of standard material alone
 Created : 8/9/2007 1:12 PM Modified : 5/19/2014 3:48 PM

Column : Detection : UV 267nm
 Mobile Phase : Temperature :
 Flow Rate : Pressure :
 Note :



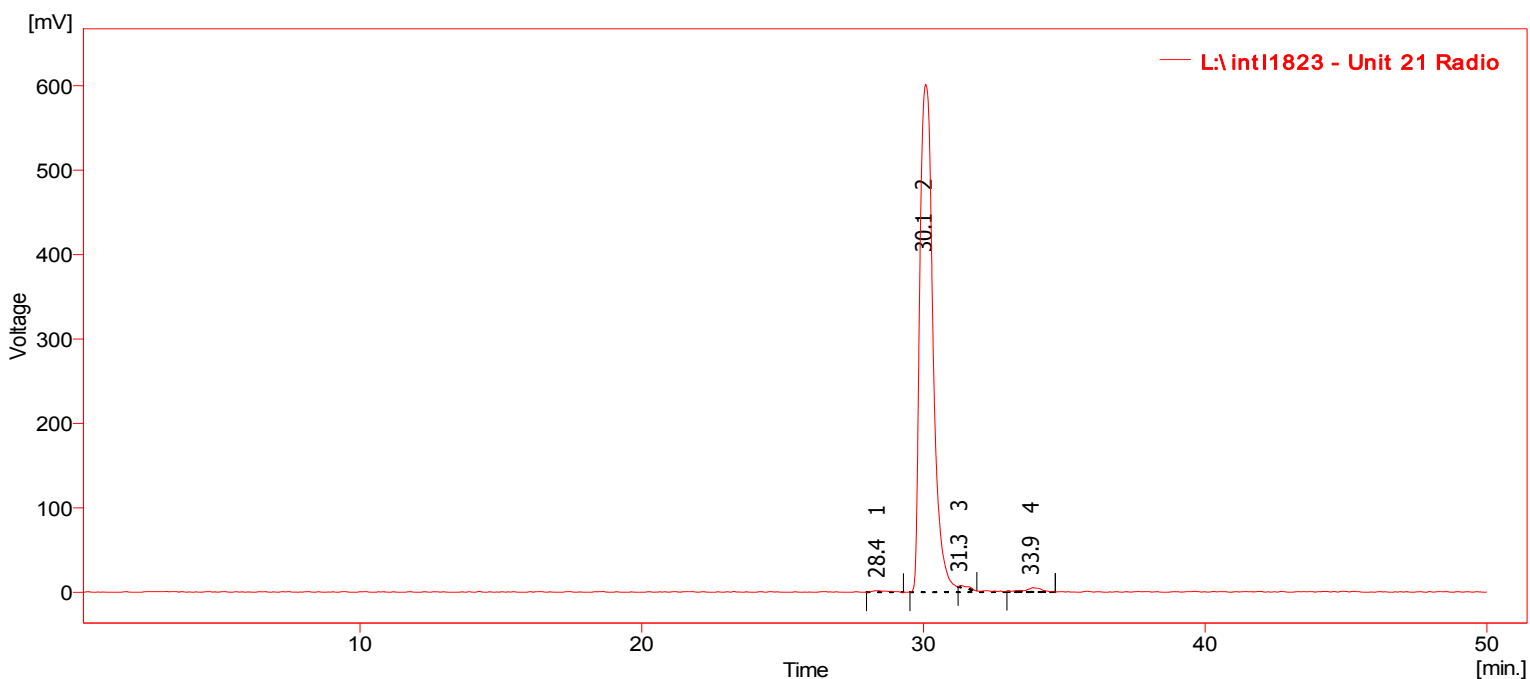
Result Table (Uncal - L:\intl1824 - Unit 21 UV)

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	27.91	174.695	26.74	4.23	4.2	0.10	336470	6729400		1.22	
2	28.85	9.507	1.72	0.23	0.3	0.09	698375	13967504	5.76	1.16	
3	29.04	2.925	0.59	0.07	0.1	0.08	831902	16638032	1.32	1.26	
4	29.32	2.741	0.49	0.07	0.1	0.10	680520	13610407	1.87	1.06	
5	29.72	3910.903	603.13	94.71	94.7	0.10	342709	6854171	2.36	1.27	
6	30.72	5.192	0.52	0.13	0.1	0.10	151351	3027029	5.92	1.87	
7	31.18	7.665	1.09	0.19	0.2	0.11	418239	8364788	2.58	0.85	
8	31.91	3.914	0.45	0.09	0.1	0.16	357765	7155305	3.25	1.27	
9	32.22	11.793	1.99	0.29	0.3	0.10	646645	12932896	1.43	1.25	
Total		4129.334	636.73	100.00	100.0						

MC-2351
2,2'-Dithiobisbenzanilide, [phenyl-14C(U)]-
Lot 198-026-0366-A-20100609-DR

Chromatogram Info:

File Name	: L:\intl1823	File Created	: 5/19/2014 3:12:55 PM
Origin	: Acquired, Acquisition started 6/15/2010 5:05:52 PM	Acquired Date	: 6/15/2010 5:55:51 PM
Project	: Work1	By	: Administrator
Method	: Unit21_40_min_run	By	: Administrator
Description	: Radiochemical trace of 14C material co-injected with standard		
Created	: 8/9/2007 1:12 PM	Modified	: 5/19/2014 3:50 PM
Column	:	Detection	: Radiochemical
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



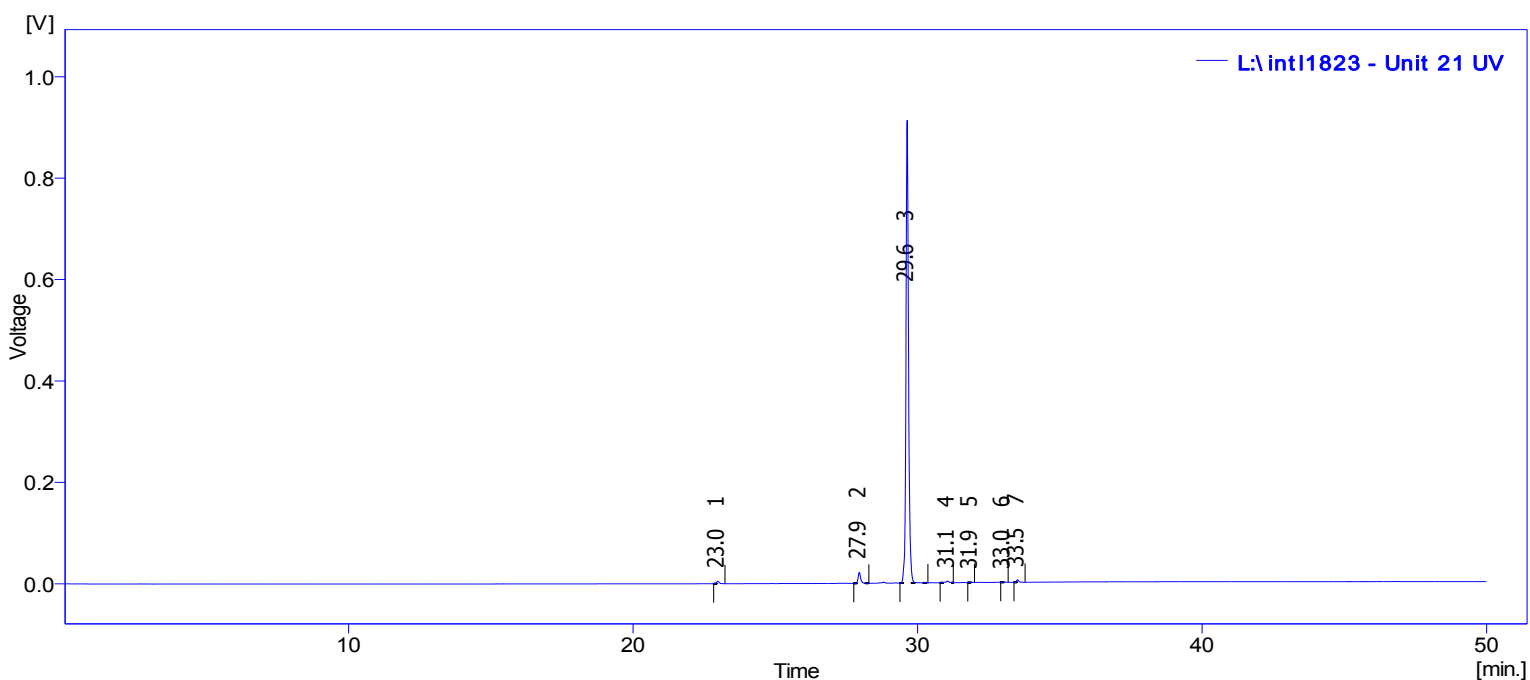
Result Table (Uncal - L:\intl1823 - Unit 21 Radio)

	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		28.41	72.427	1.82	0.36	0.3	0.59	10007	200147		1.45	
2		30.08	19865.500	601.58	98.28	98.5	0.50	0	0	1.81	4.65	
3		31.33	73.107	2.50	0.36	0.4	0.22	46410	928206	2.04	3.03	
4		33.88	202.573	5.08	1.00	0.8	0.52	10860	217199	4.03	0.94	
		Total	20213.608	610.98	100.00	100.0						

MC-2351
2,2'-Dithiobisbenzanilide, [phenyl-14C(U)]-
Lot 198-026-0366-A-20100609-DR

Chromatogram Info:

File Name	: L:\intl1823	File Created	: 5/19/2014 3:12:55 PM
Origin	: Acquired, Acquisition started 6/15/2010 5:05:52 PM	Acquired Date	: 6/15/2010 5:55:51 PM
Project	: Work1	By	: Administrator
Method	: Unit21_40_min_run	By	: Administrator
Description	: UV trace of 14C material co-injected with standard	Modified	: 5/19/2014 3:49 PM
Created	: 8/9/2007 1:12 PM		
Column	:	Detection	: UV 267nm
Mobile Phase	:	Temperature	:
Flow Rate	:	Pressure	:
Note	:		



Result Table (Uncal - L:\intl1823 - 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		22.98	30.388	4.97	0.51	0.5	0.09	230486	4609724		1.31	
2		27.95	129.375	21.27	2.19	2.2	0.09	359904	7198073	31.44	1.27	
3		29.63	5677.779	912.27	96.15	96.1	0.09	325497	6509949	10.64	1.13	
4		31.06	26.284	3.28	0.45	0.3	0.10	207711	4154229	8.69	0.86	
5		31.87	6.804	1.31	0.12	0.1	0.09	845402	16908036	5.12	1.13	
6		33.02	6.435	1.15	0.11	0.1	0.08	612083	12241670	7.98	1.45	
7		33.51	28.057	4.94	0.48	0.5	0.09	504492	10089834	3.42	1.26	
	Total		5905.122	949.19	100.00	100.0						

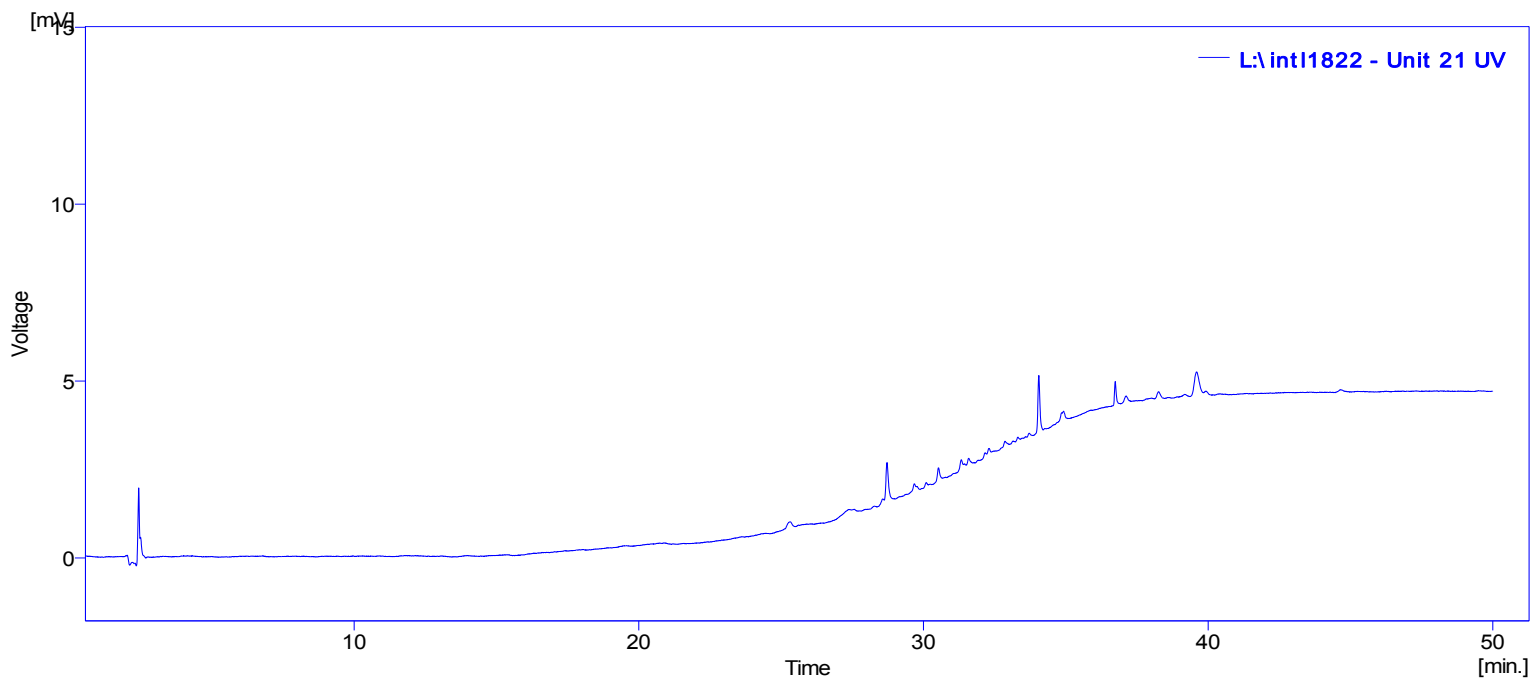
MC-2351
2,2'-Dithiobisbenzanilide, [phenyl-14C(U)]-
Lot 198-026-0366-A-20100609-DR

Chromatogram Info:

File Name : L:\intl1822 File Created : 5/19/2014 3:12:55 PM
 Origin : Acquired, Acquisition started 6/15/2010 4:10:52 PM Acquired Date : 6/15/2010 5:00:51 PM
 Project : Work1 By : Administrator

Method : Unit21_40_min_run By : Administrator
 Description : UV trace of blank injection
 Created : 8/9/2007 1:12 PM Modified : 5/19/2014 3:22 PM

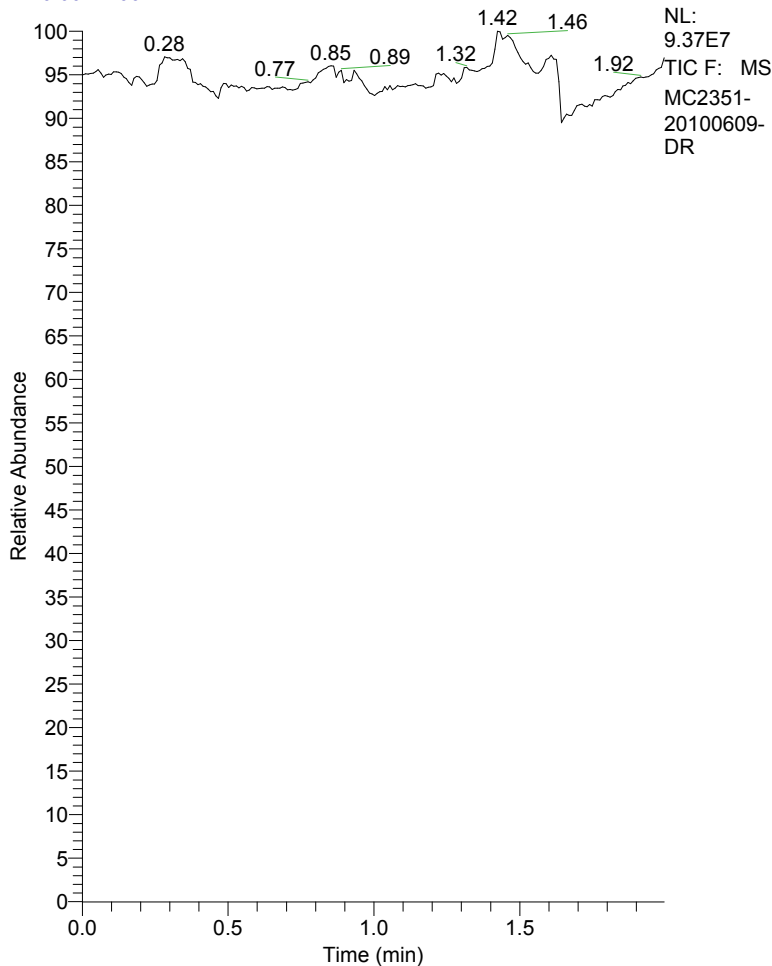
Column : Detection : UV 267nm
 Mobile Phase : Temperature :
 Flow Rate : Pressure :
 Note :



Result Table (Uncal - L:\intl1822 - 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											

RT: 0.00 - 1.99



MC2351-20100609-DR#1-228 RT: 0.00-1.99

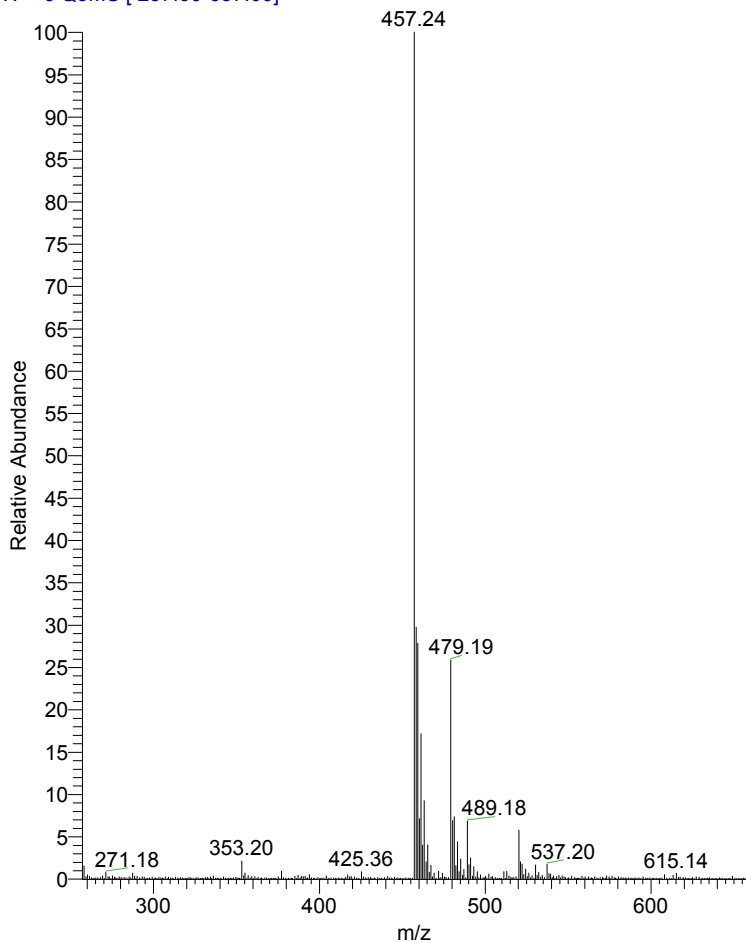
T: + c Q3MS [257.00-657.00]

m/z = 451.19-473.50

m/z	Intensity	Relative
454.51	21570.4	0.08
456.11	19730.7	0.08
457.24	25688500.1	100.00
458.32	7637534.7	29.73
459.29	7152393.1	27.84
460.27	1833773.2	7.14
461.23	4401993.5	17.14
462.27	1024746.3	3.99
463.23	2369897.1	9.23
464.27	516615.2	2.01
465.24	1038156.8	4.04
466.27	201146.3	0.78
467.22	417106.9	1.62
468.28	62738.1	0.24
469.20	182300.2	0.71
470.38	27918.8	0.11
471.81	226489.6	0.88
473.19	42485.0	0.17

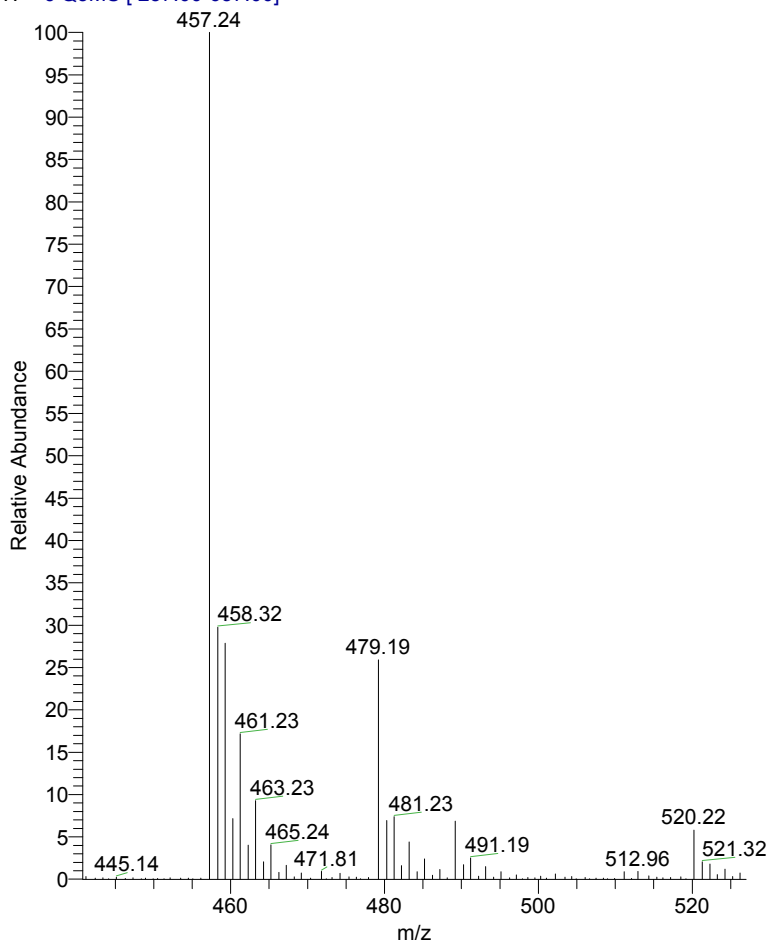
MC2351-20100609-DR #1-228 RT: 0.00-1.99 AV: 228 NL: 2.57E7

T: + c Q3MS [257.00-657.00]

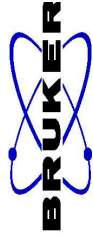


MC2351-20100609-DR #1-228 RT: 0.00-1.99 AV: 228 NL: 2.57E7

T: + c Q3MS [257.00-657.00]



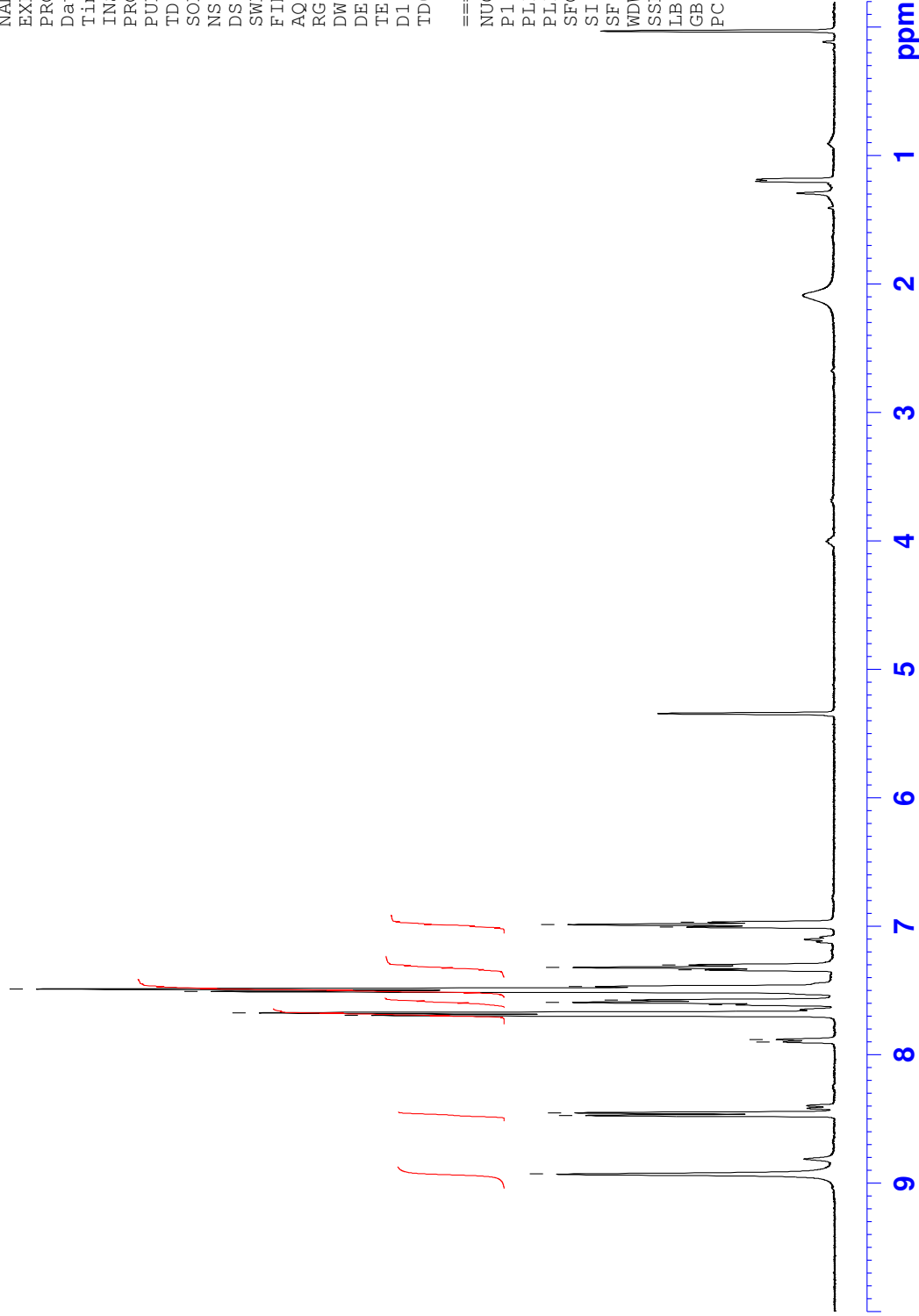
MC2351 1H NMR in CD2Cl2
 Batch 20100609-DR



8.928
8.474
8.453
7.901
7.882
7.693
7.674
7.611
7.593
7.575
7.507
7.489
7.469
7.339
7.320
7.301
7.006
6.987
6.968

MC2351
 NAME 1
 EXPNO 1
 PROCNO 1
 Date_ 20100616
 Time 10.26
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CD2Cl2
 NS 512
 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 293.4 K
 D1 1.00000000 sec
 TD0 1

==== CHANNEL f1 =====
 NUC1 1H
 P1 14.50 usec
 PL1 -0.70 dB
 PL1W 10.03411102 W
 SF01 400.1324710 MHz
 SI 32768
 SF 400.1300062 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00



1.79
1.78
3.88
2.00
6.14
1.98
1.89