



INDOFINE Chemical Company, Inc.

121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

Phone: (908) 359-6778 • FAX: (908) 359-1179

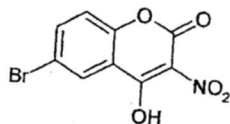
website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

CERTIFICATE OF ANALYSIS

Cat. No.: CS-152

<u>Product:</u>	6-Bromo-4-hydroxy-3-nitrocoumarin
<u>Lot No.:</u>	1204207
<u>CAS No.:</u>	[55005-21-5]
<u>Molecular Formula:</u>	C ₉ H ₄ BrNO ₅
<u>Molecular Weight:</u>	286.04
<u>Melting Point:</u>	162-164°C
<u>Appearance:</u>	Light yellow powder
<u>Solubility:</u>	Soluble in DMSO
<u>TLC:</u>	Chloroform:methanol (1:1)
<u>Moisture(KF):</u>	0.41%
<u>Purity(HPLC):</u>	99.6%





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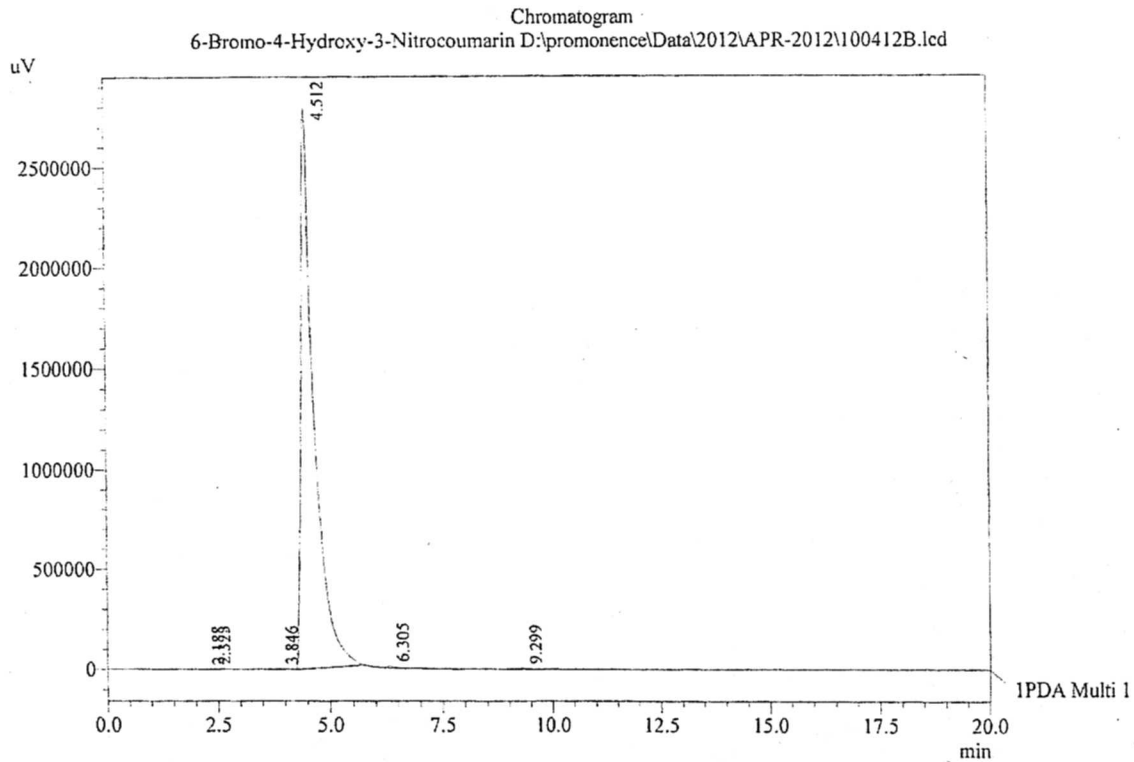
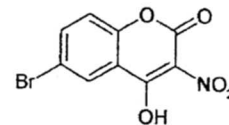
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HPLC ANALYSIS

Acquired by : Sanjeev
Sample Name : 6-Bromo-4-Hydroxy-3-Nitrocoumarin
Sample ID : 10 gms Lot
Injection Volume : 20 uL
Data Filename : 100412B.lcd
Method Filename : Linear Isocratic.M.lcm

Catalog No.: CS-152
Product name: 6-Bromo-4-hydroxy-3-nitrocoumarin
Lot No.: 1204207

Date Acquired : 4/10/2012 11:02:57 AM
Date Processed : 4/10/2012 12:16:03 PM
Column : LUNA C-18(2), (250mm x4.6mm 5.0µ)
Flow : 1.000 mL/min.
Mobile Phase : A(40% of 0.05% TFA in water) B(60% of Acetonitrile)



1 PDA Multi 1 / 225nm 4nm

PeakTable

PDA Ch1 225nm 4nm

Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1	RT:2.188	2.188	4691	0.01	0.48
2	RT:2.323	2.323	18198	0.03	0.51
3	RT:3.846	3.846	14441	0.03	0.85
4	RT:4.512	4.512	55423508	99.67	1.00
5	RT:6.305	6.305	83873	0.15	1.40
6	RT:9.299	9.299	63728	0.11	2.06
Total			55608439	100.00	



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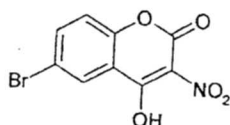
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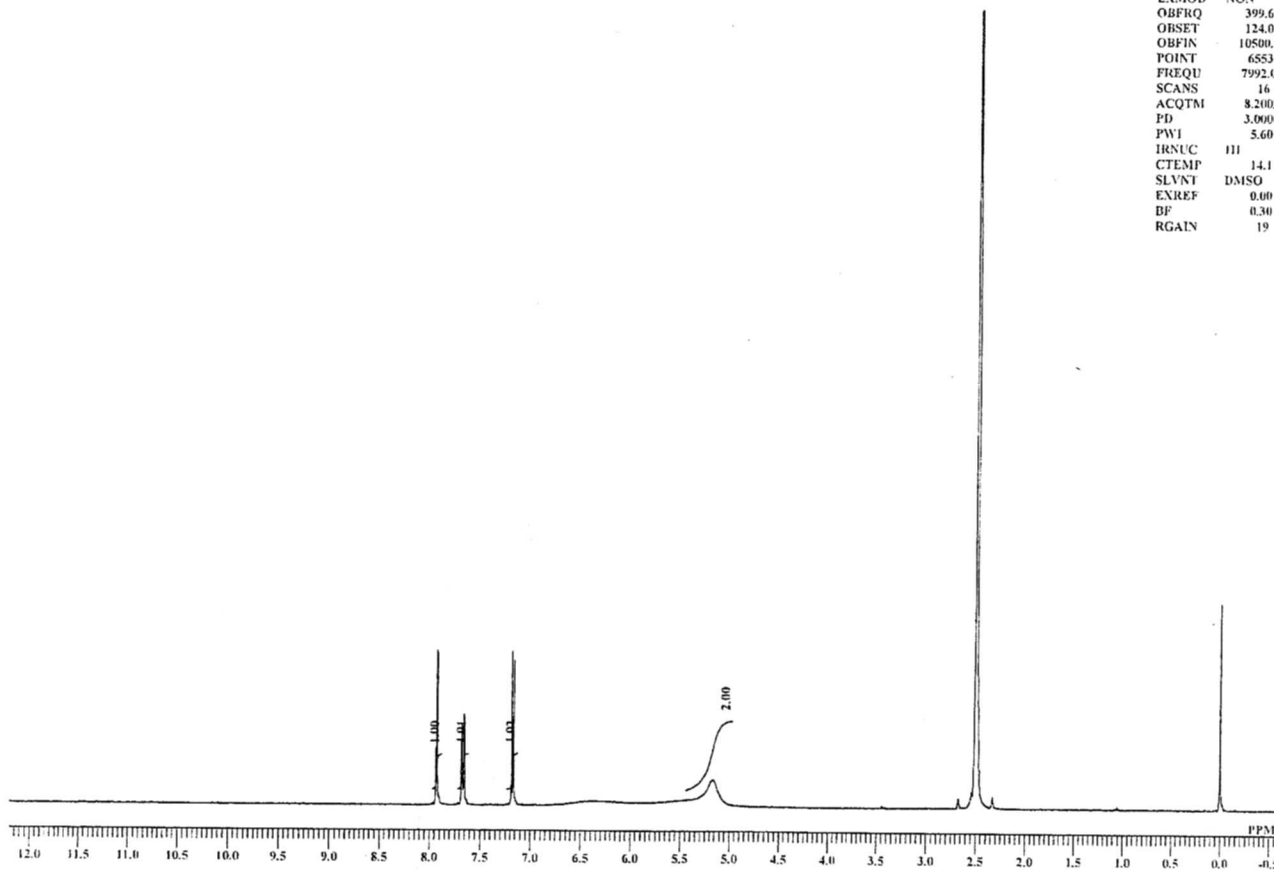
Product name: 6-Bromo-4-hydroxy-3-nitrocoumarin

Lot No.: 1204207



NITRO COUMARIN-4 gr 1H NMR DMSO-d6

DFILE NITRO COUMARIN-4 gr.ab
COMNT NITRO COUMARIN-4 gr 1H NMR D
DATIM Fri Apr 06 18:30:12 2012
OBNUC 1H
EXMOD NON
OBFRQ 399.65 MHz
OBSET 124.00 KHz
OBFIN 10500.00 Hz
POINT 65536
FREQU 7992.01 Hz
SCANS 16
ACQTM 8.2002 sec
PD 3.0000 sec
PWI 5.60 usec
IRNUC 1H
CTEMP 14.1 c
SLVNT DMSO
EXREF 0.00 ppm
BF 0.30 Hz
RGAIN 19





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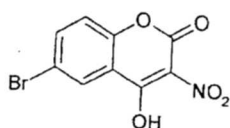
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Product name: 6-Bromo-4-hydroxy-3-nitrocoumarin
Lot No.: 1204207



NITRO COUMARIN-4 gr 1H NMR DMSO-d6

DFILE	NITRO COUMARIN-4 gr.ak
COMNT	NITRO COUMARIN-4 gr 1H NMR D
DATIM	Fri Apr 06 18:30:12 2012
ORNUC	III
EXMOD	NON
OBFRQ	399.65 MHz
OBSET	124.00 KHz
OBFIN	10500.00 Hz
POINT	65536
FREQU	7992.01 Hz
SCANS	16
ACQTM	8.2002 sec
PD	3.0000 sec
PW1	5.60 usec
IRNUC	1H
CTEMP	14.1 c
SLVNT	DMSO
EXREF	0.00 ppm
BF	0.30 Hz
RGAIN	19

