



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

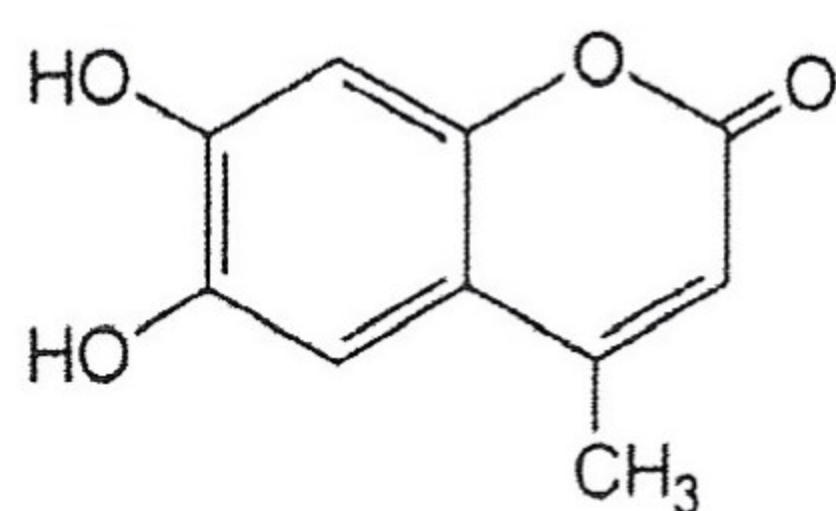
website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

CERTIFICATE OF ANALYSIS

Cat No.: D-009

<u>Product:</u>	6,7-DIHYDROXY-4-METHYLCOUMARIN (4-Methylesculetin)
<u>CAS Number:</u>	[529-84-0]
<u>Lot Number:</u>	93004
<u>Molecular Formula:</u>	C ₁₀ H ₈ O ₄
<u>M.W.:</u>	192.17
<u>Melting Point:</u>	above 280°C
<u>Appearance:</u>	Cream color powder
<u>Solubility:</u>	Soluble in DMSO
<u>TLC:</u>	Hexane : ethyl acetate (1:1)
<u>Purity(HPLC):</u>	98.90%





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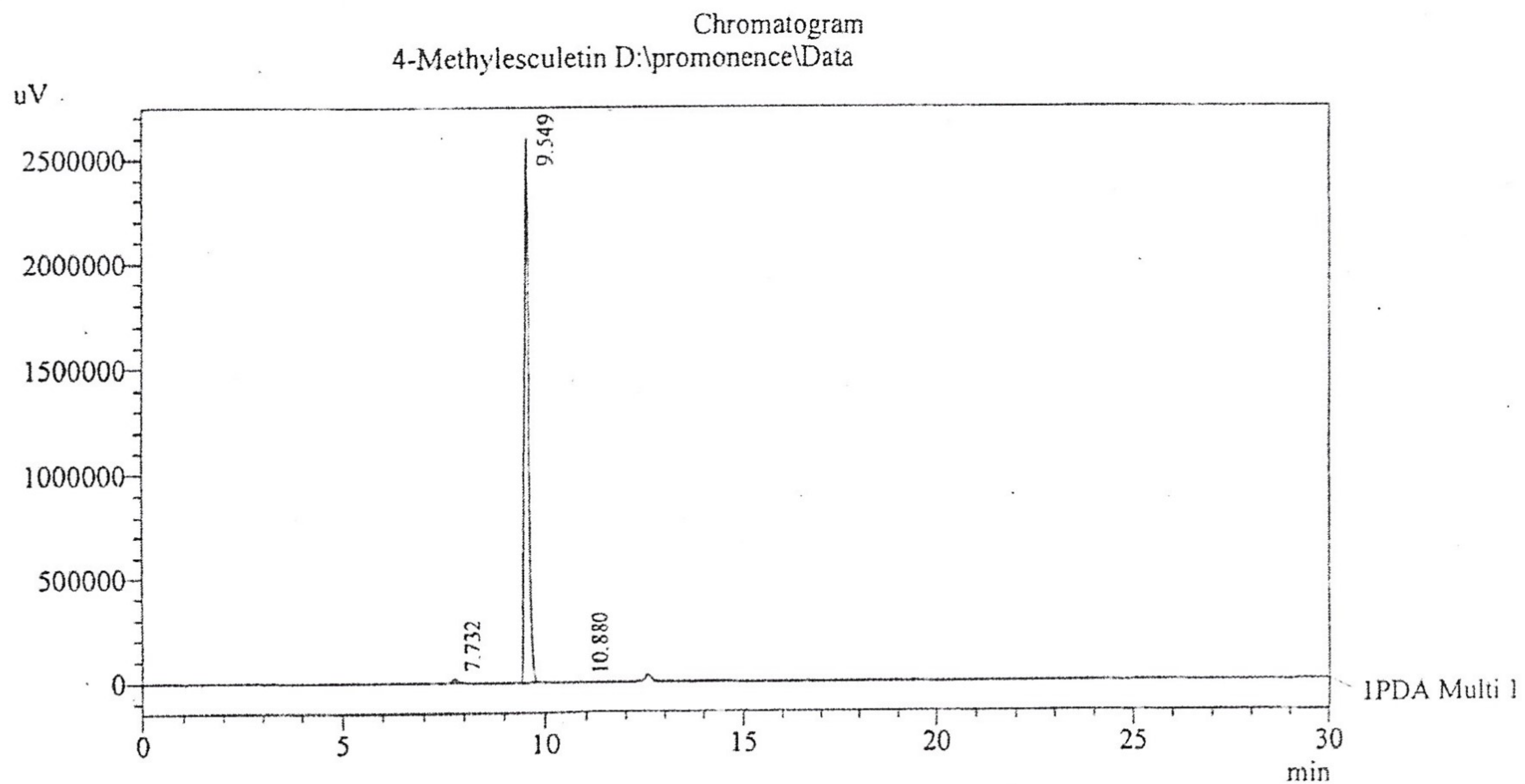
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HPLC ANALYSIS

Acquired by	: Sanjeev	Cat. No.:	D-009
Sample Name	: 4-Methylesculetin	Product name:	6,7-Dihydroxy-4-methylcoumarin
Sample ID	: Lot No:- 93004	Lot No.:	93004
Injection Volume	: 20 uL		
Data Filename	: 151211K.lcd		
Method Filename	: Linear Gradient.M.lcm		

Column	: LUNA C-18(2), (250mm x4.6mm 5.0μ)
Flow	: 1.000 mL/min.
Mobile Phase	: A(0.05% TFA in water) B(Acetonitrile)
	0.01 90 10
	12.0 10 90
	20.0 10 90
	25.0 90 10
	30.0 90 10



1 PDA Multi 1 / 240nm 4nm

PeakTable

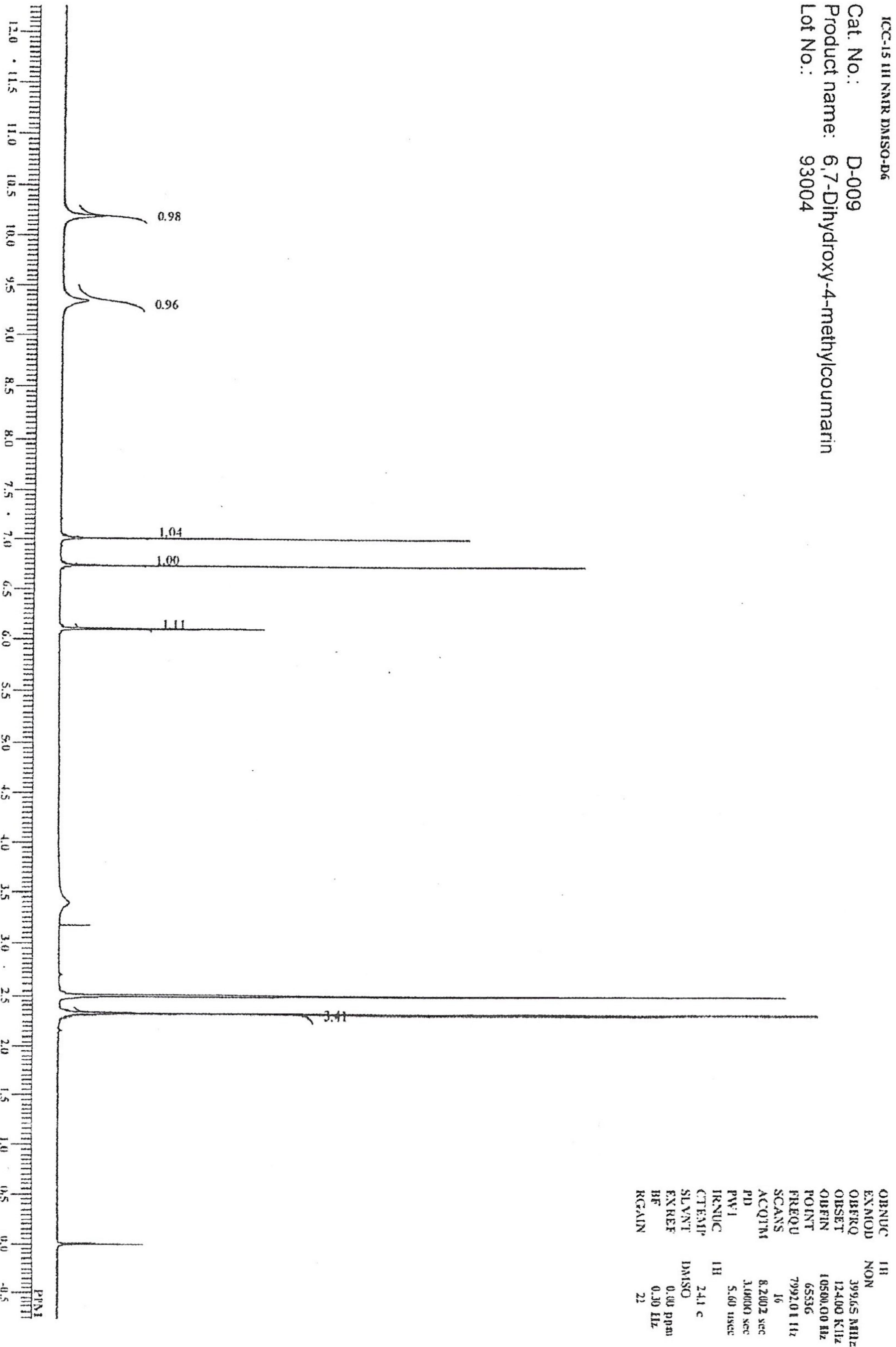
PDA Ch1 240nm 4nm

Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1	RT:7.732	7.732	209886	1.09	0.81
2	RT:9.549	9.549	19051113	98.90	1.00
3	RT:10.880	10.880	2810	0.01	1.14
Total			19263809	100.00	



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ICG-15 III NMR DIMSO-D6
 Cat. No.: D-009
 Product name: 6,7-Dihydroxy-4-methylcoumarin
 Lot No.: 93004

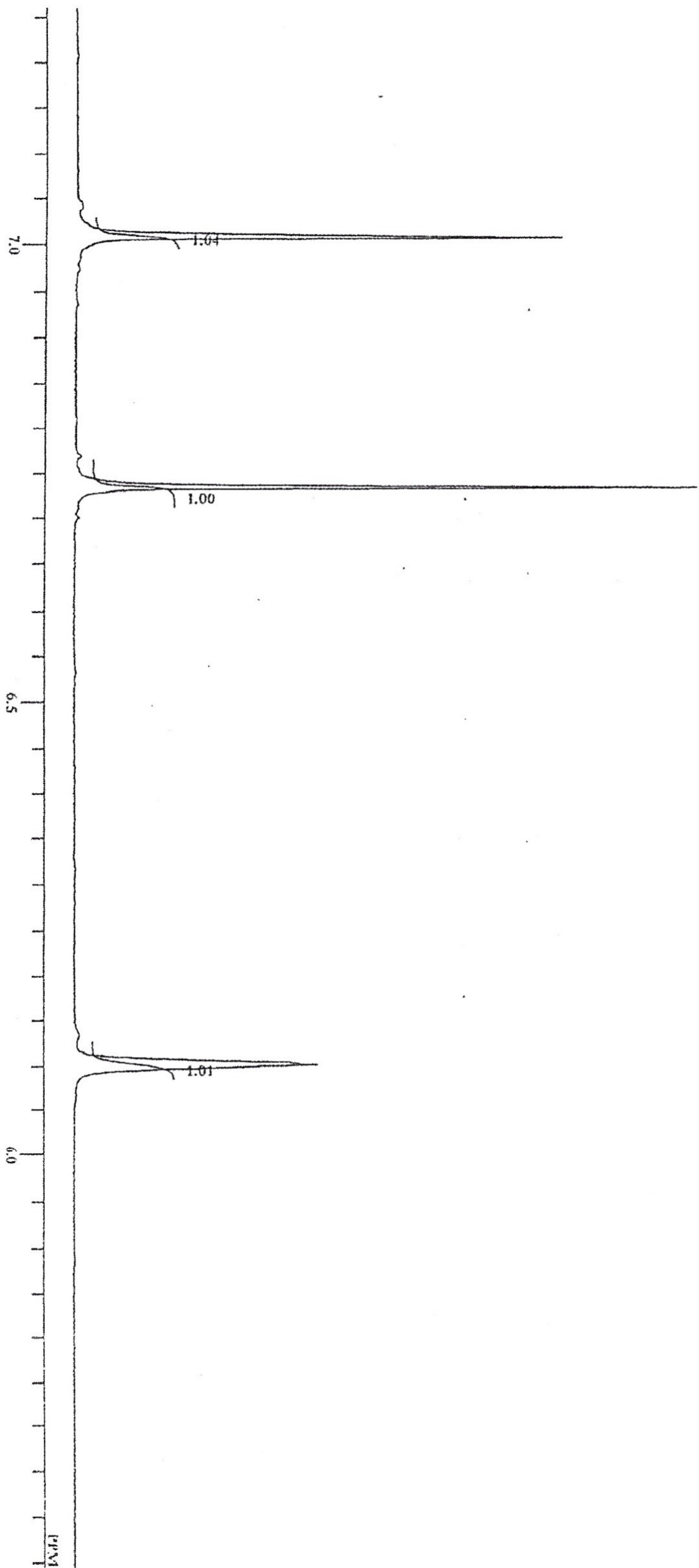


ORNUC	1H
EXMOD	NON
QBERQ	399.65 MHz
QBSRT	12.400 KHz
QBFEN	10580.00 Hz
POINT	65336
FREQU	7992.01 Hz
SCANS	16
ACQTM	8.2002 sec
PD	3.0000 sec
PV1	5.60 usec
IRNUC	1H
CTEMP	24.1 c
SLVNT	DMSO
EXREF	0.00 ppm
HF	0.30 Hz
RGAIN	22



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ICC-15 1H NMR DMSO-D6
Cat. No.: D-009
Product name: 6,7-Dihydroxy-4-methylcoumarin
Lot No.: 93004



ORNUC	1H
EXM10D	NON
OBFRQ	399.65 MHz
OBSET	124.00 kHz
OBFTN	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
CTENP	24.1 e
SLVNT	DMSO
EXREF	0.00 ppm
BF	0.30 Hz
RGAIN	22