



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

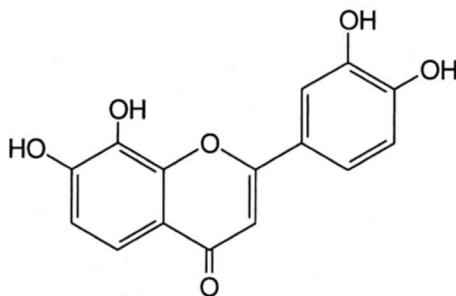
website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

CERTIFICATE OF ANALYSIS

CAT. No.: T-201

<u>Product Name:</u>	7,8,3',4'-TETRAHYDROXYFLAVONE
<u>CAS Number:</u>	[3440-24-2]
<u>Lot Number:</u>	1108149
<u>Chemical Formula:</u>	C ₁₅ H ₁₀ O ₆
<u>Molecular Weight:</u>	286.24
<u>Melting Point:</u>	>300°C
<u>Appearance:</u>	Yellow powder
<u>TLC:</u>	Chloroform:Methanol (9:1) single compound
<u>Solubility:</u>	Soluble in DMSO
<u>Assay (HPLC):</u>	99.68%





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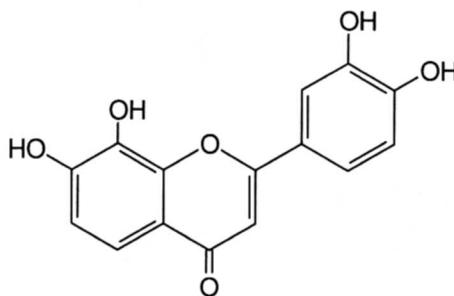
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<u>Chemical Formula:</u>	C ₁₅ H ₁₀ O ₆
<u>Molecular Weight:</u>	286.24
<u>Melting Point:</u>	>300°C
<u>Appearance:</u>	Yellow powder
<u>TLC:</u>	Chloroform:Methanol (9:1) single compound
<u>Solubility:</u>	Soluble in DMSO
<u>Assay (HPLC):</u>	99.69%





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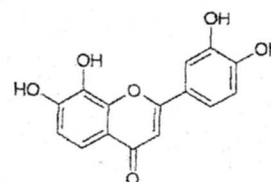
e-mail: chemical@indofinechemical.com

HPLC ANALYSIS

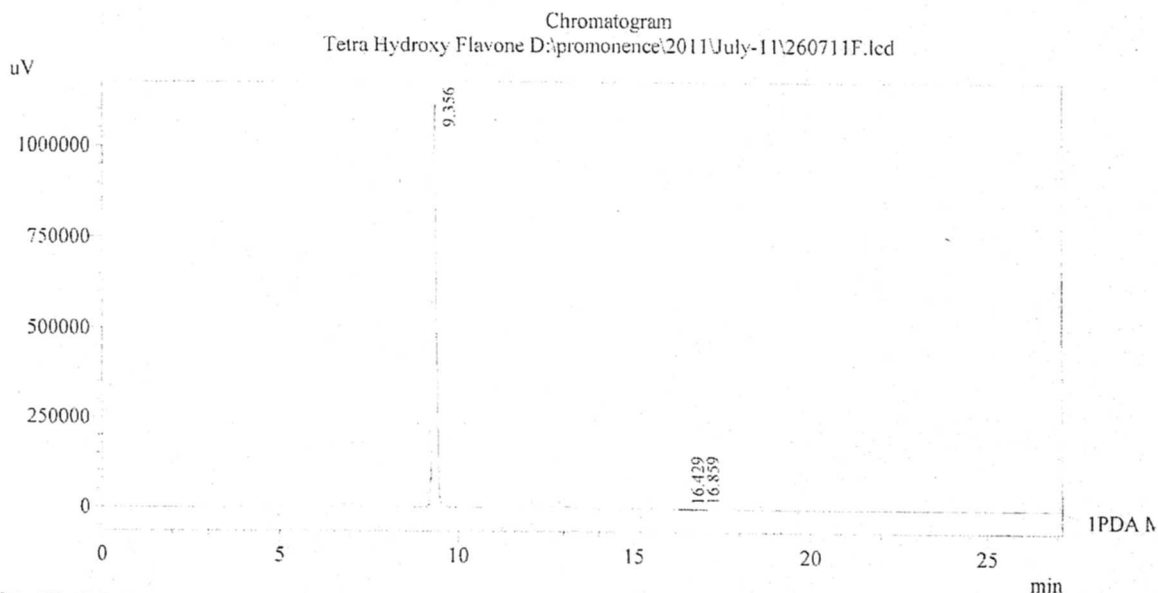
Date Acquired : 7/26/2011 11:26:53 PM
Acquired by : Rama krishna
Sample Name : Tetra Hydroxy Flavone
Sample ID : 860gm
Injection Volume : 20 uL
Data Filename : 260711F.lcd
Method Filename : Linear Gradient.M.lcm

Cat. No.: T-201
Product name: 7,8,3',4'-Tetrahydroxyflavone
Lot No.: 1108149

Description:
Column : Phenomenex C-18, 250X4.6mm 5.0µm
Flow : 1.000ML/min.
Mobile Phase : A(Water 0.05% TFA) : B(ACN)
00.01 : 90 : 10
12.00 : 10 : 90
20.00 : 10 : 90
23.00 : 90 : 10



7,8,3',4'-TETRAHYDROXYFLAVONE



Pe:1 PDA Multi 1 / 254nm 4nm
PDA Ch1 254nm 4nm

Peak#	Ret. Time	Area	Height	Area %
1	9.356	7784509	1111327	99.682
2	16.429	10265	768	0.131
3	16.859	14607	1862	0.187
Total		7809382	1113957	100.000



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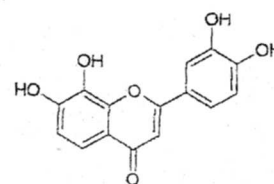
e-mail: chemical@indofinechemical.com

HPLC ANALYSIS

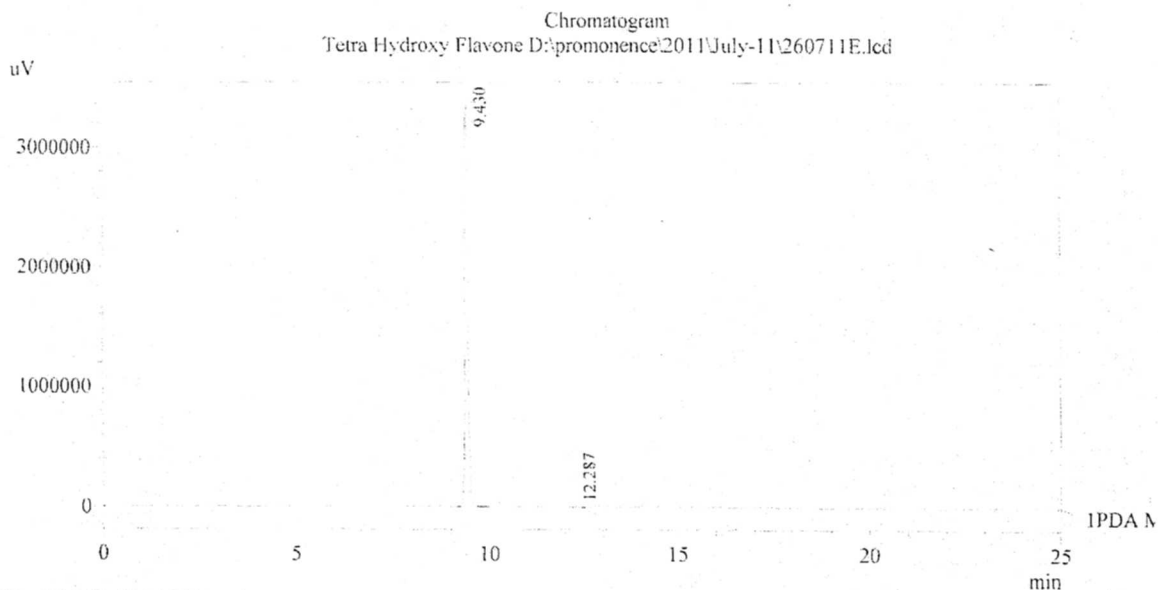
Date Acquired : 7/26/2011 11:00:27 PM
Acquired by : Rama krishna
Sample Name : Tetra Hydroxy Flavone
Sample ID : 140gm
Injection Volume : 20 uL
Data Filename : 260711E.lca
Method Filename : Linear Gradient.M.lcm

Cat. No.: T-201
Product name: 7,8,3',4'-Tetrahydroxyflavone
Lot No.: 1108150

Description:
Column : Phenomenex C-18, 250X4.6mm 5.0µm
Flow : 1.000ML/min.
Mobile Phase : A(Water 0.05% TFA) : B(ACN)
00.01 : 90 : 10
12.00 : 10 : 90
20.00 : 10 : 90
23.00 : 90 : 10



7,8,3',4'-TETRAHYDROXYFLAVONE



Pe:1 PDA Multi 1 / 254nm 4nm
PDA Ch1 254nm 4nm

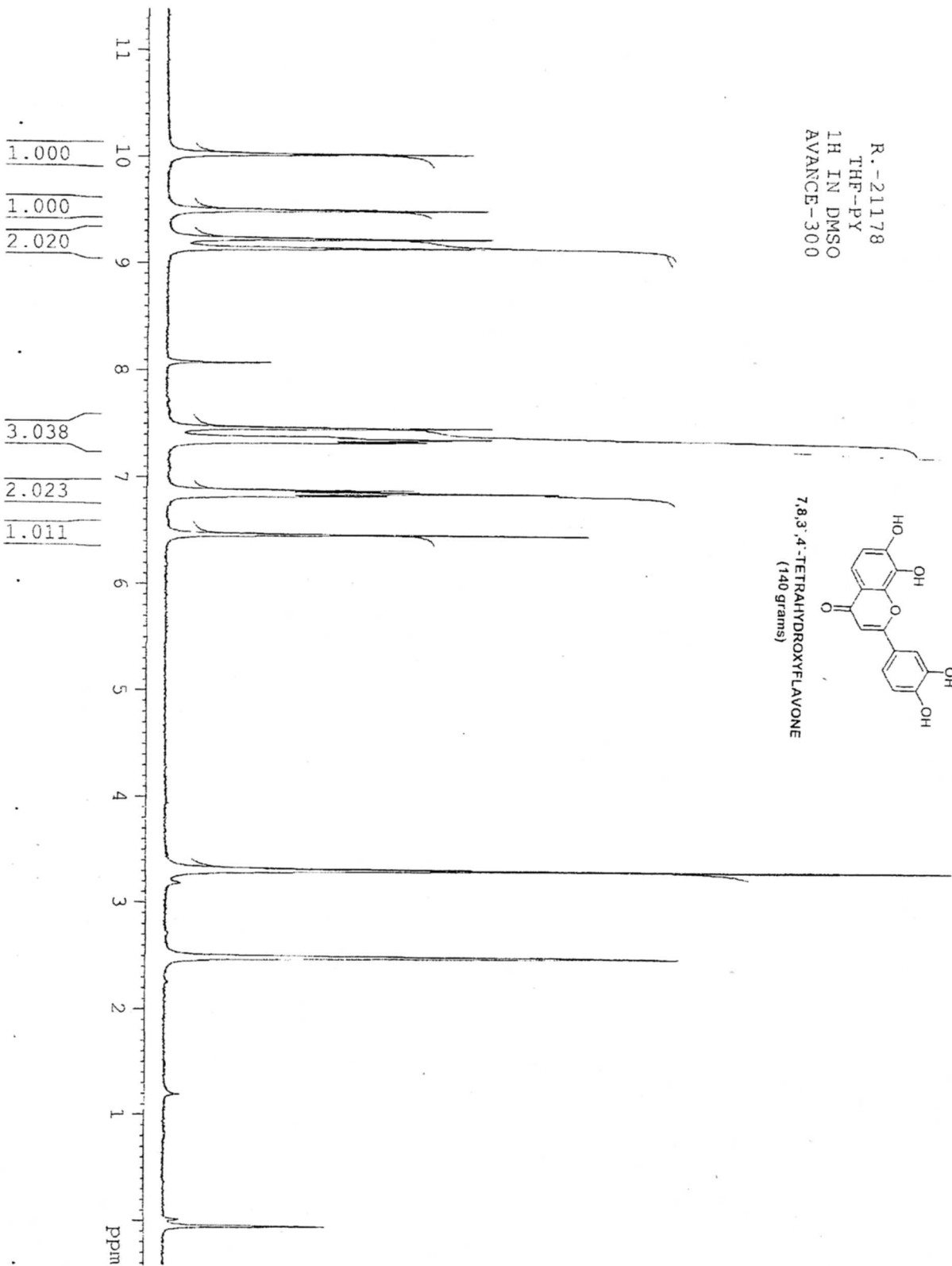
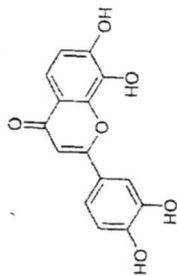
Peak#	Ret. Time	Area	Height	Area %
1	9.430	20977418	3340580	99.693
2	12.287	64506	8801	0.307
Total		21041924	3349582	100.000



INDOFINE *Chemical Company, Inc.*
121 STRYKER LANE
BLDG. 30, SUITE 1
HILLSBOROUGH, NJ 08844

R.-21178
THF-PY
1H IN DMSO
AVANCE-300

7,8,3',4'-Tetrahydroxyflavone
(140 grams)



Cat. No.: T-201
Product name: 7,8,3',4'-Tetrahydroxyflavone
Lot No.: 1108150



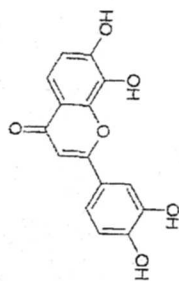
INDOFINE Chemical Company, Inc.

121 STRYKER LANE
BLDG. 30, SUITE 1
HILLSBOROUGH, NJ 08844

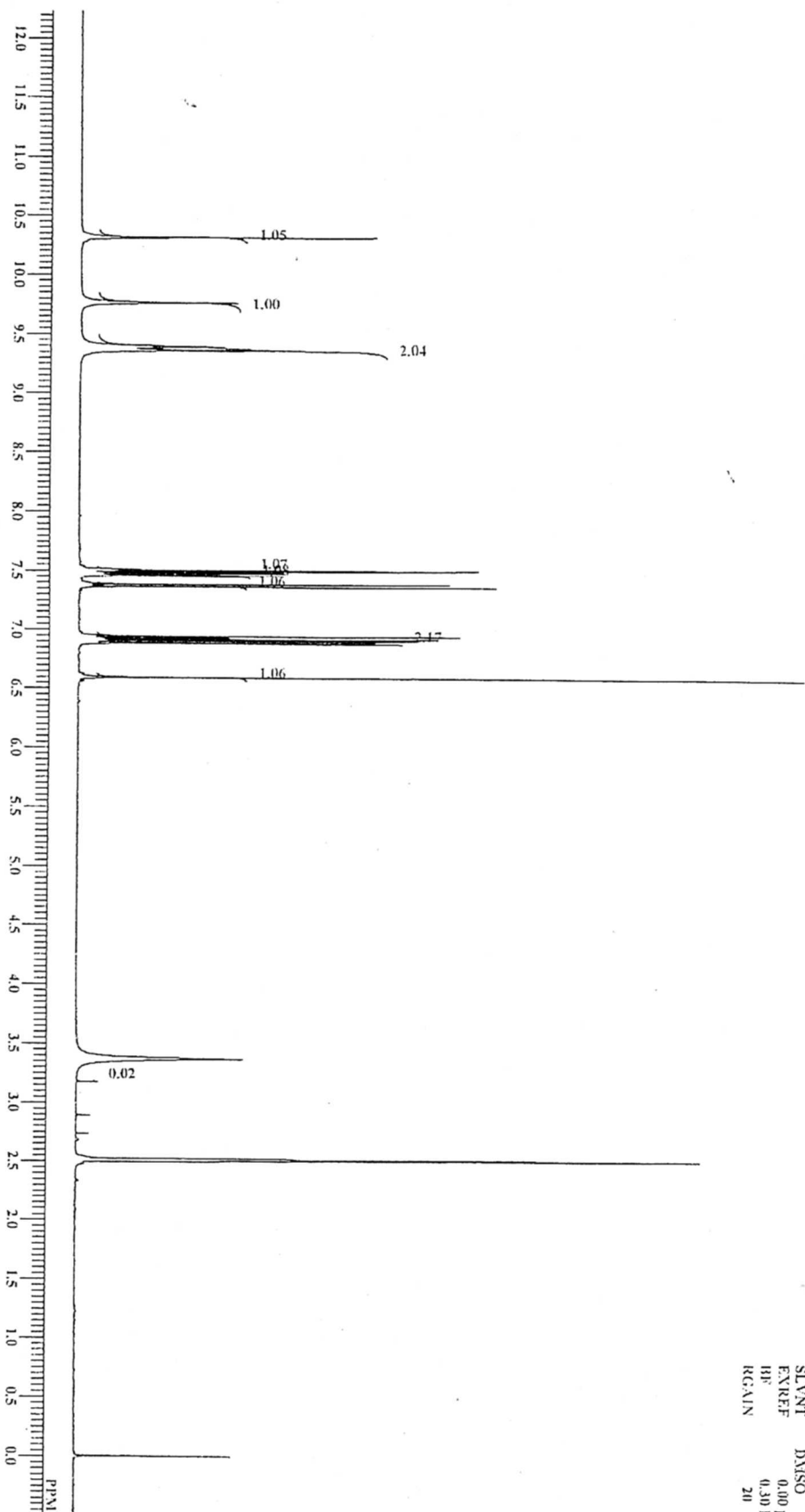
Tetra-OH-F1 III NMR DMSO-d6

Cat. No.: T-201

Product name: 7,8,3',4'-Tetrahydroxyflavone



7,8,3',4'-TETRAHYDROXYFLAVONE



DIRTE: Tetra-OH-F1-02.ab
 COMNT: Tetra-OH-F1 III NMR DMSO-d6
 DATIM: Tue Jun 26 16:28:07 2011
 OBNUC: III
 EXMOD: NON
 OBFRO: 399.65 MHz
 OBFET: 124.00 kHz
 OBFIN: 10500.00 Hz
 POINT: 65536
 FREQU: 7992.01 Hz
 SCANS: 16
 ACQTM: 8.2002 sec
 PD: 3.0000 sec
 PWT: 5.60 usec
 IRNIC: III
 CTENP: 22.8 c
 SLVNT: DMSO
 EXREF: 0.00 ppm
 RF: 0.30 Hz
 RGAIN: 20

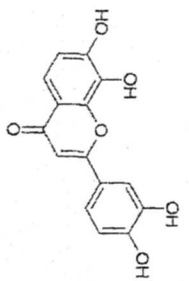


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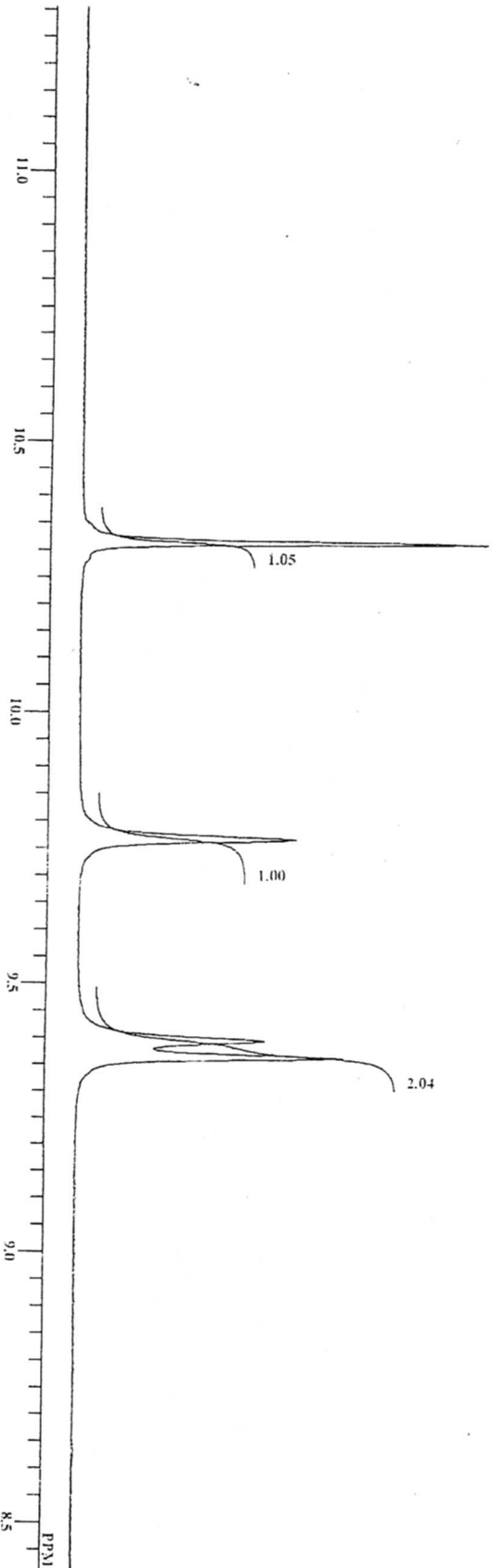
Tetra-OH-F1 III NMR DMSO-d6

Cat. No.: T-201
Product name: 7,8,3',4'-Tetrahydroxyflavone



7,8,3',4'-TETRAHYDROXYFLAVONE

DELTE	Tetra-OH-F1.d12.ak
COINTE	Tetra-OH-F1 III NMR DMSO-d6
DATIM	Tue Jul 26 16:28:07 2011
ORNTC	III
EXMOD	NON
ORPRO	309.65 MHz
ORSET	124.00 KHz
ORPIN	10500.00 Hz
POINT	65536
PROFD	7992.01 Hz
SCANS	16
ACQTM	8.2002 sec
PD	3.0000 sec
PW1	5.60 usec
IRNTC	III
CTEXP	22.8 c
SLVNT	DMSO
EXREF	0.00 ppm
BF	0.30 Hz
RGAIN	20



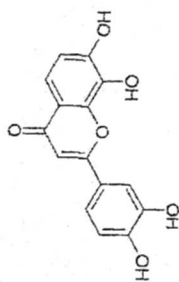


INDOFINE Chemical Company, Inc.

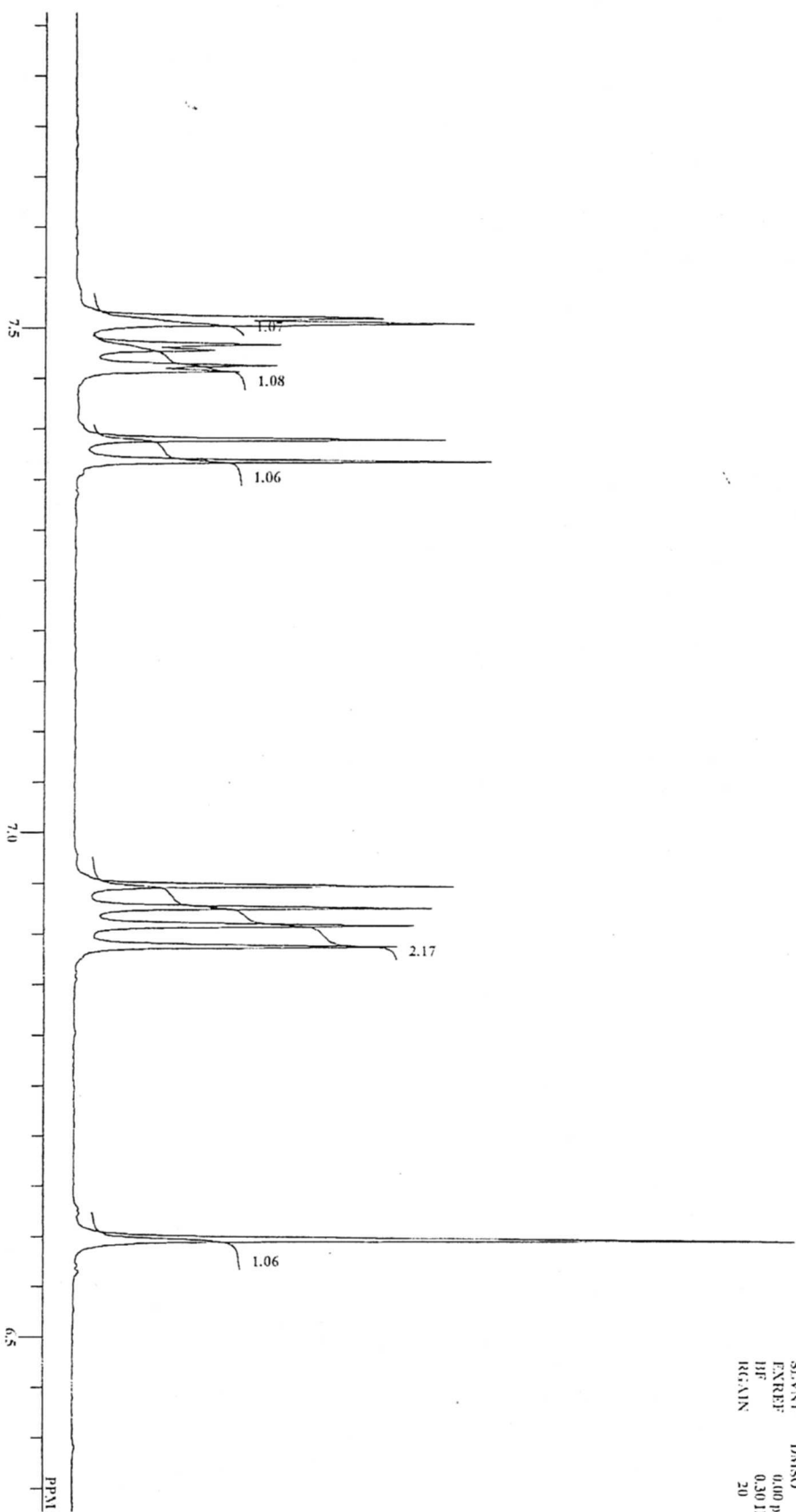
121 STRYKER LANE
BLDG. 30, SUITE 1
HILLSBOROUGH, NJ 08844

Tetra-OH-F1 III NMR DMSO-d6

Cat. No.: T-201
Product name: 7,8,3',4'-Tetrahydroxyflavone



7,8,3',4'-TETRAHYDROXYFLAVONE

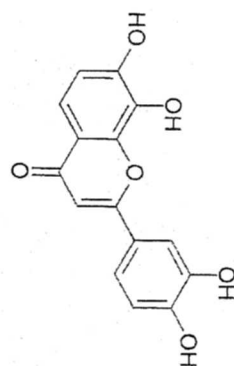
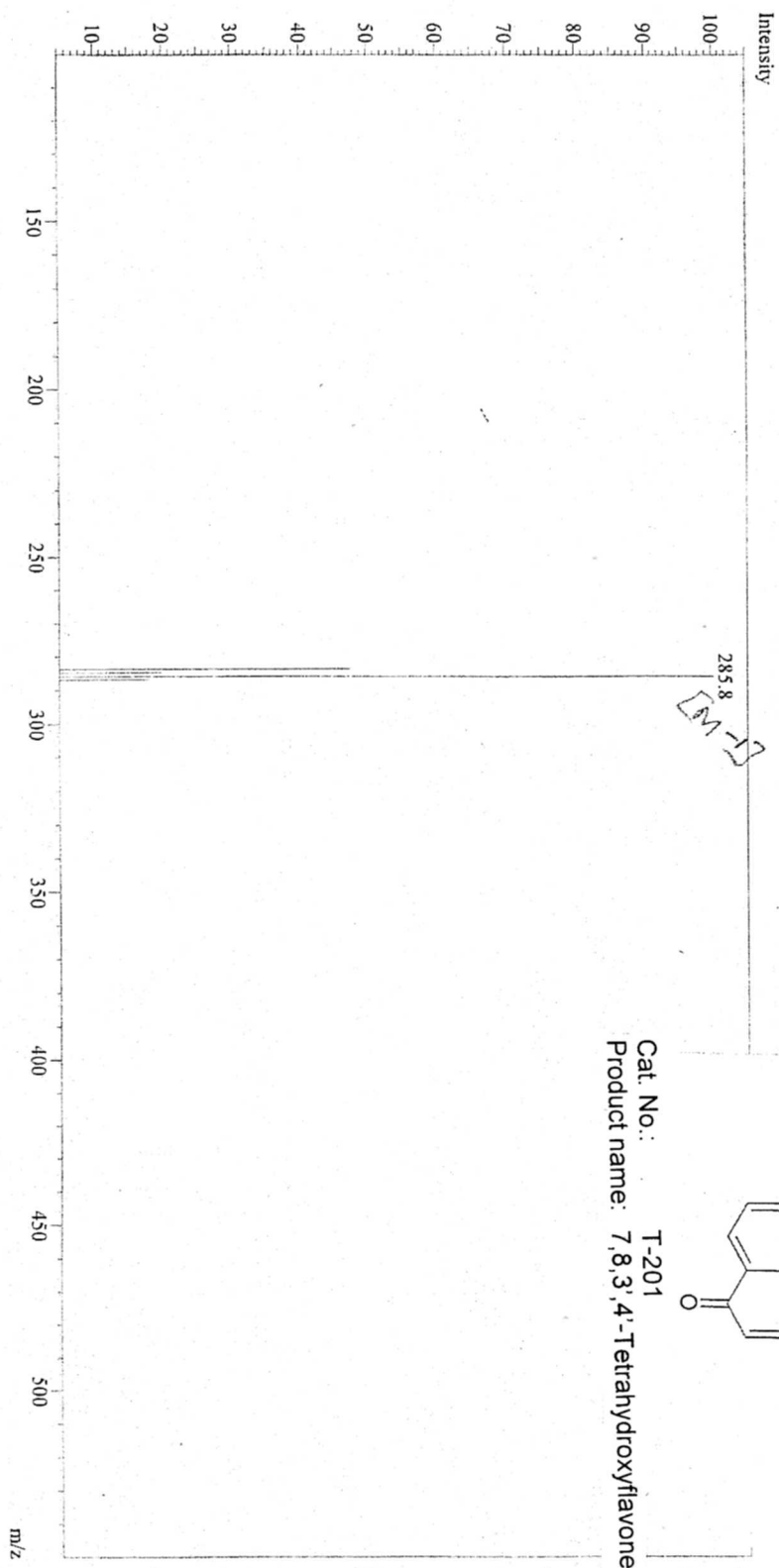


DRPLE	Tetra-OH-F1-02.ac
CONNT	Tetra-OH-F1 III NMR DMSO-d6
DATEM	Tue Jul 26 16:28:07 2011
OHNTC	1H
EXXID	NON
OHFRQ	399.65 MHz
OHRET	124.00 KHz
OHFN	10500.00 Hz
POINT	65536
PREQU	7992.01 Hz
SCANS	16
ACQTM	8.2002 sec
TD	3.0000 sec
PV1	5.60 uvcc
IRNTC	III
CTEMP	22.8 c
SLENT	DMSO
EXREF	0.00 ppm
HF	0.30 Hz
REMAIN	20

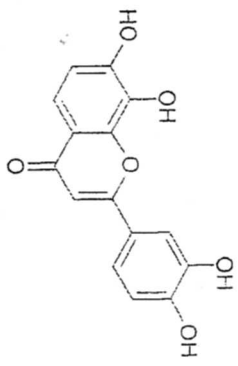


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Probe : AP/CI
Polarity: Neg



Cat. No.: T-201
Product name: 7,8,3',4'-Tetrahydroxyflavone

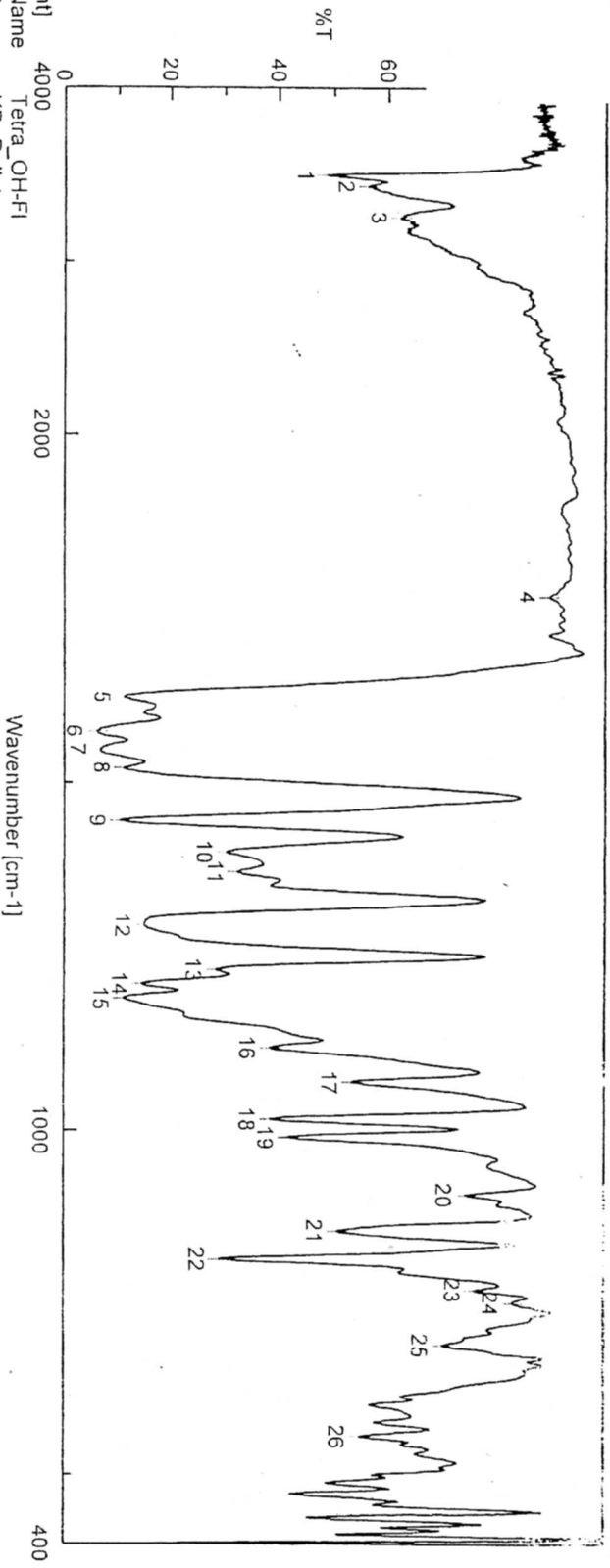


Cat. No.: T-201
 Product name: 7,8,3',4'-Tetrahydroxyflavone

Tetra_OH-Fl.jws



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 BLDG. 30, SUITE 1
 HILLSBOROUGH, NJ 08844



[Comment] Tetra_OH-Fl
 Sample Name KBr Pellet
 Comment BKR
 User QC
 Division BIOSYN
 Company

[Data Information]
 Creation Date 7/13/2011 3:20 PM
 Data array type Linear data array
 Horizontal Wavenumber [cm-1]
 Vertical %T
 Start 399.193 cm-1
 End 7800.65 cm-1
 Data pitch 0.964233 cm-1
 Data points 7677

No.	Position	Intensity	No.	Position	Intensity	No.	Position	Intensity
1	3499	48.7742	2	3435	56.1271	3	3254	62.0955
5	1623	11.1138	6	1573	6.04687	7	1547	6.59757
9	1444	10.2118	10	1400	30.3228	11	1371	32.4146
13	1231	28.4353	14	1211	14.4383	15	1190	10.9741
17	1070	53.3855	18	1016	38.4007	19	990	41.7995
21	855	50.7216	22	814	29.0591	23	769	75.8753
25	689	69.8976	26	556	54.8451	4	1768	89.5894
						8	1521	11.0764
						12	1295	14.8992
						16	1119	38.4808
						20	908	74.2575
						24	751	82.9446

CONFIDENTIAL