



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

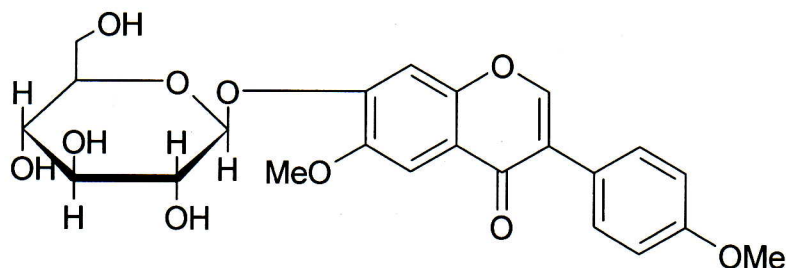
website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

CERTIFICATE OF ANALYSIS

Cat. No.: 19-640

<u>Product:</u>	4',6- DIMETHOXY ISOFLAVONE-7-O- β -D-GLUCOPYRANOSIDE
<u>Synonym:</u>	Wistin
<u>CAS Number:</u>	[19046-26-5]
<u>Lot No.:</u>	0310155
<u>Molecular Formula:</u>	C ₂₃ H ₂₄ O ₁₀
<u>Molecular Weight:</u>	460.44
<u>Melting Point:</u>	218.5-222°C
<u>Appearance:</u>	White powder
<u>Solubility:</u>	Soluble in DMF
<u>Specific rotation:</u>	-54.9°C (c=1.43 in acetic acid)
<u>N.M.R. Spectrum:</u>	Enclosed (H ¹ -NMR & C ¹³ -NMR)
<u>I.R. Spectrum:</u>	Enclosed
<u>Purity(HPLC):</u>	99%+





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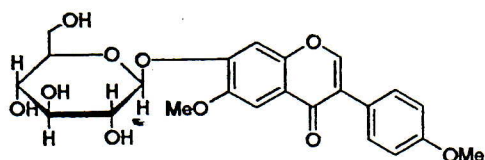
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HPLC ANALYSIS



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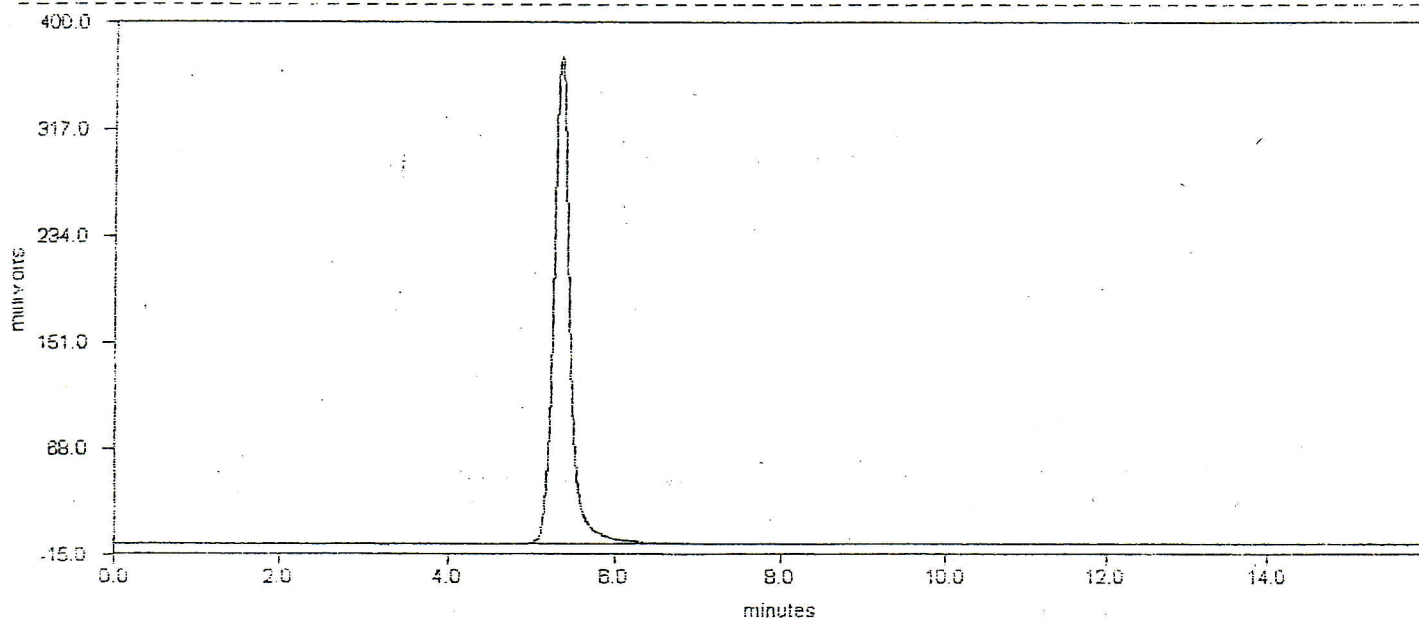
Product name: 4',6-Dimethoxyisoflavone-7-O- β -D-glucopyranoside

Lot No.: 0310155

DETECTION : 254nm FLOW RATE : 0.5ml/min
COLUMN : C18 MOBILE PHASE : METHANOL

DELTA CHROMATOGRAPHY DATA SYSTEM

STRIPCHART PLOT FOR CHROMATOGRAM - c:\deltaw\data\np-252.raw



DELTA CHROMATOGRAPHY DATA SYSTEM

LISTING PEAK TABLE FOR CHROMATOGRAM - c:\deltaw\data\np-252.raw.RAW

#	Type Name	Ret.Time	Area(uVSec)	Height(mV)	Area Percent
1	BV	3.37	2955	0.5	0.1
2	VB	5.35	5294328	379.8	99.9



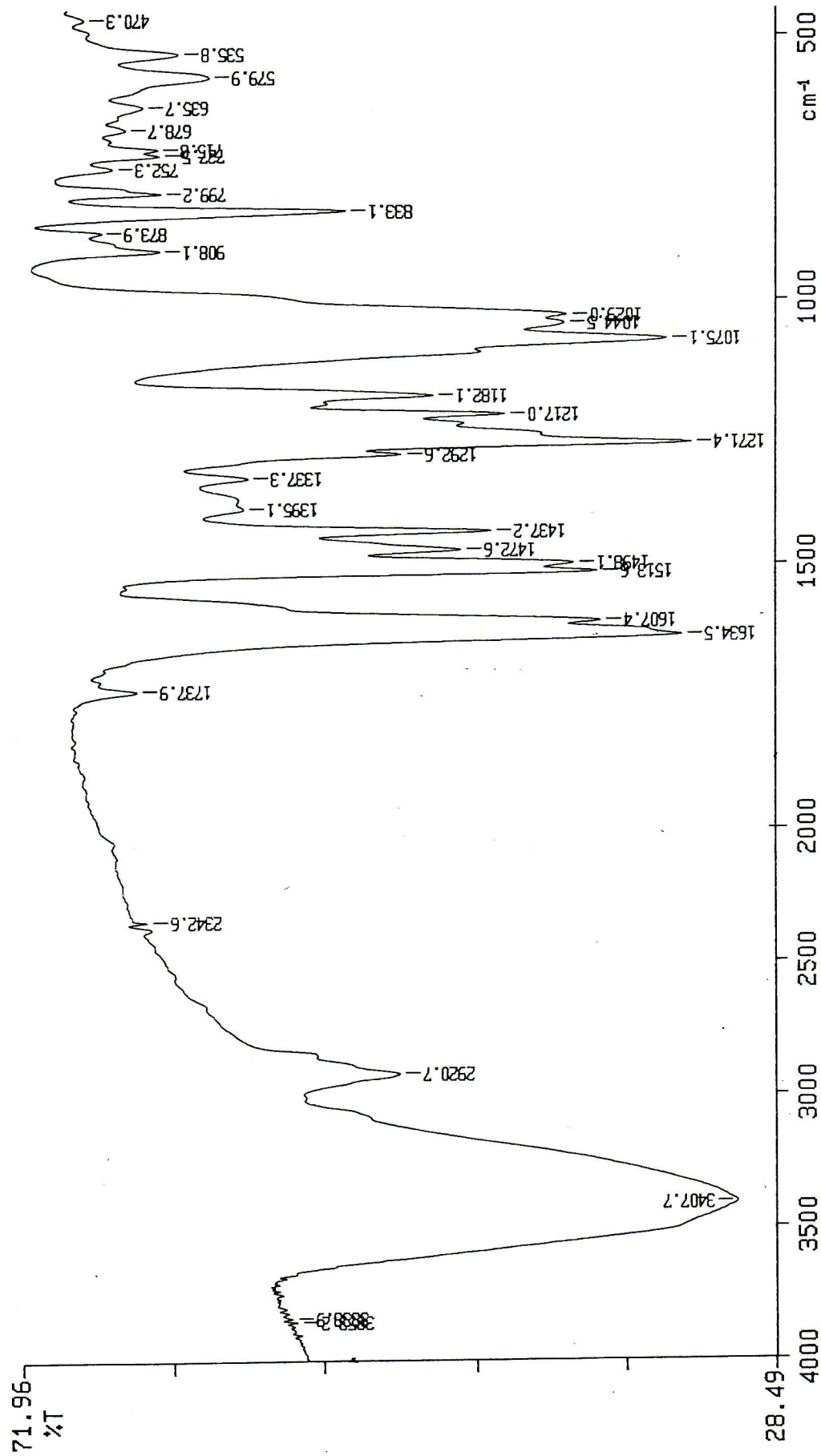
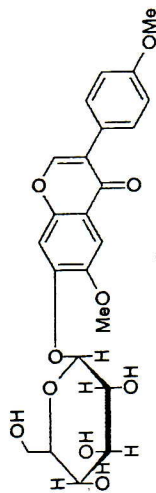
INDOFINE Chemical Company, Inc.
121 STRYKER LANE
BLDG. 30, SUITE 1
HILLSBOROUGH, NJ 08844

PERKIN ELMER

Catalog No.: 19-640

Product name: 4',6-Dimethoxyisoflavone-7-O- β -D-glucopyranoside

Lot No.: 0310155



X: 1 scan, 8.0cm-1

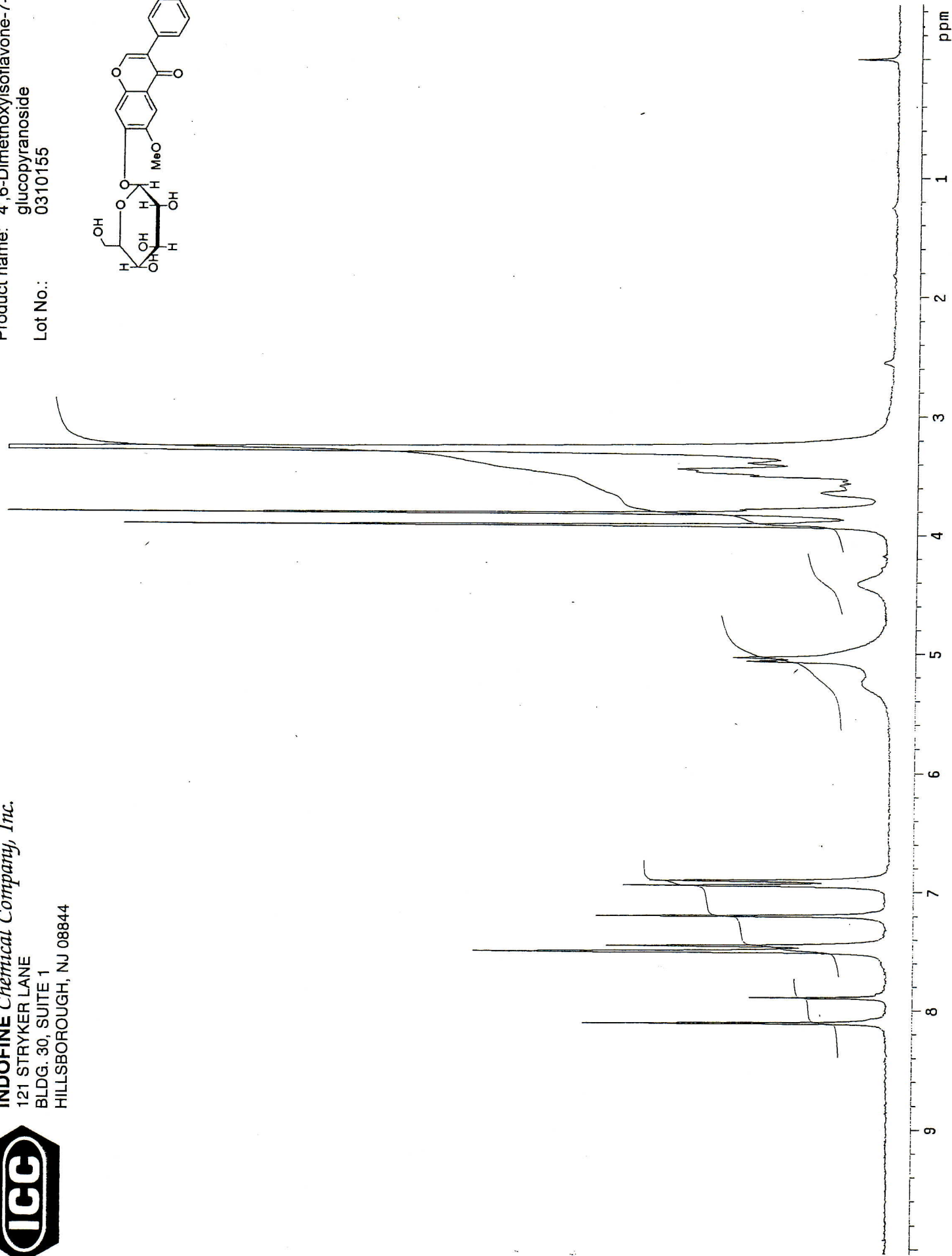
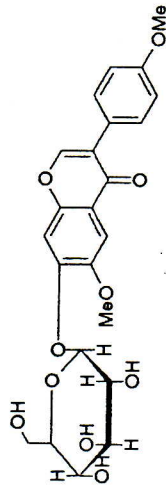


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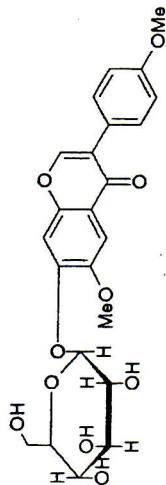
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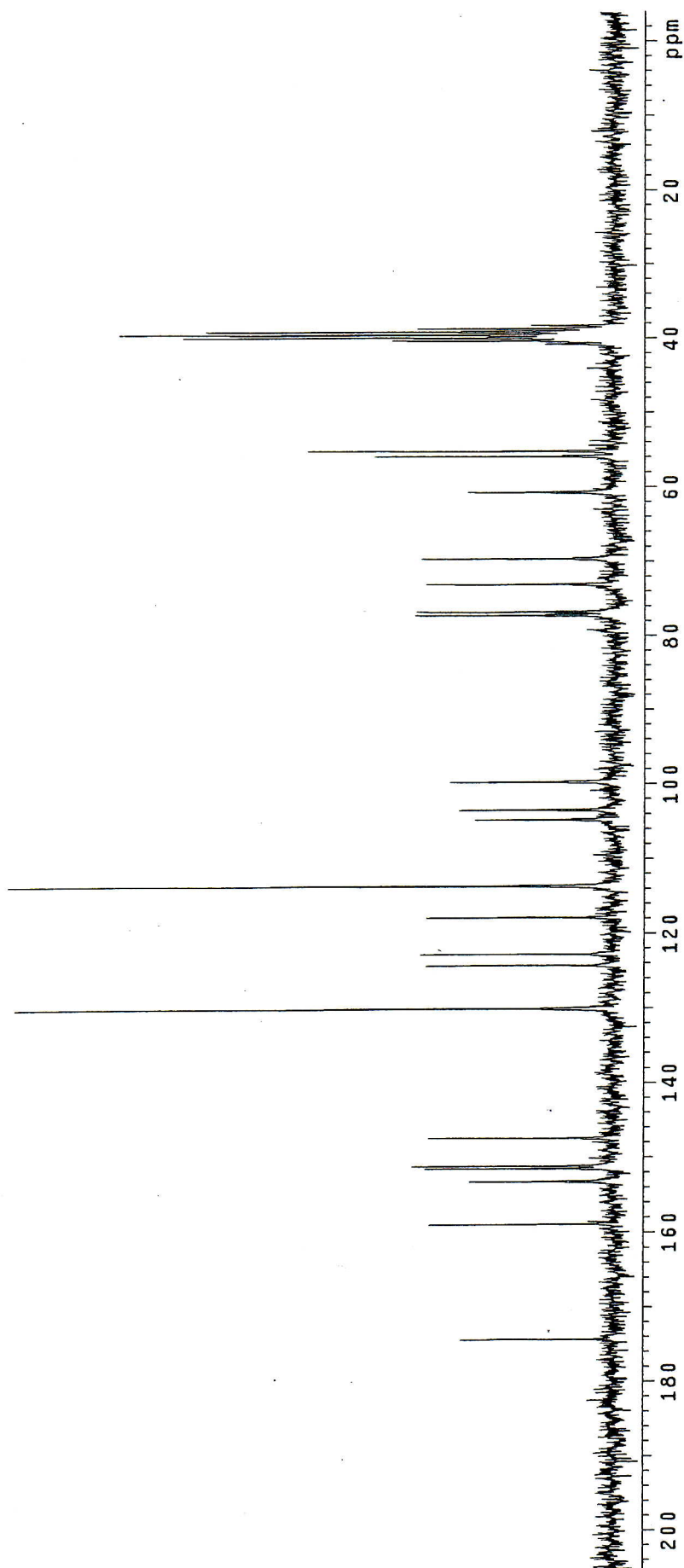
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Product name: 4',6-Dimethoxyisoflavone-7-O- β -D-glucopyranoside
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BRC 04092003
C13, DMSO-D6
SAS, 05-09-2003

Pulse Sequence: s2pu1





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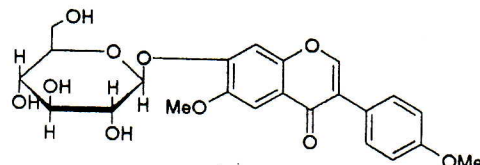
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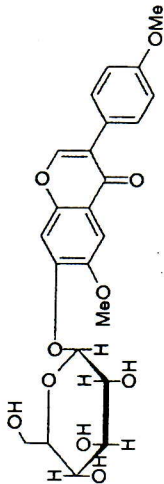


INDEX	FREQUENCY	PPM	HEIGHT
1	8764.845	174.307	23.0
2	7992.107	158.939	27.9
3	7706.894	153.267	21.8
4	7620.710	151.553	28.5
5	7603.546	151.212	30.5
6	7416.205	147.486	28.1
7	6540.848	130.078	92.7
8	6249.063	124.275	28.4
9	6175.660	122.816	29.3
10	5926.236	117.855	28.4
11	5714.427	113.643	93.8
12	5268.167	104.768	21.1
13	5203.163	103.475	23.4
14	5015.091	99.735	24.9
15	3885.563	77.272	30.2
16	3862.557	76.815	30.0
17	3676.310	73.111	28.5
18	3503.576	69.676	29.2
19	3055.125	60.757	22.2
20	2810.814	55.899	36.5
21	2775.756	55.202	47.0
22	2049.396	40.756	10.5
23	2028.215	40.335	33.8
24	2007.034	39.914	66.3
25	1985.854	39.493	76.4
26	1965.038	39.079	62.8
27	1944.222	38.665	29.9
28	1923.406	38.251	12.6

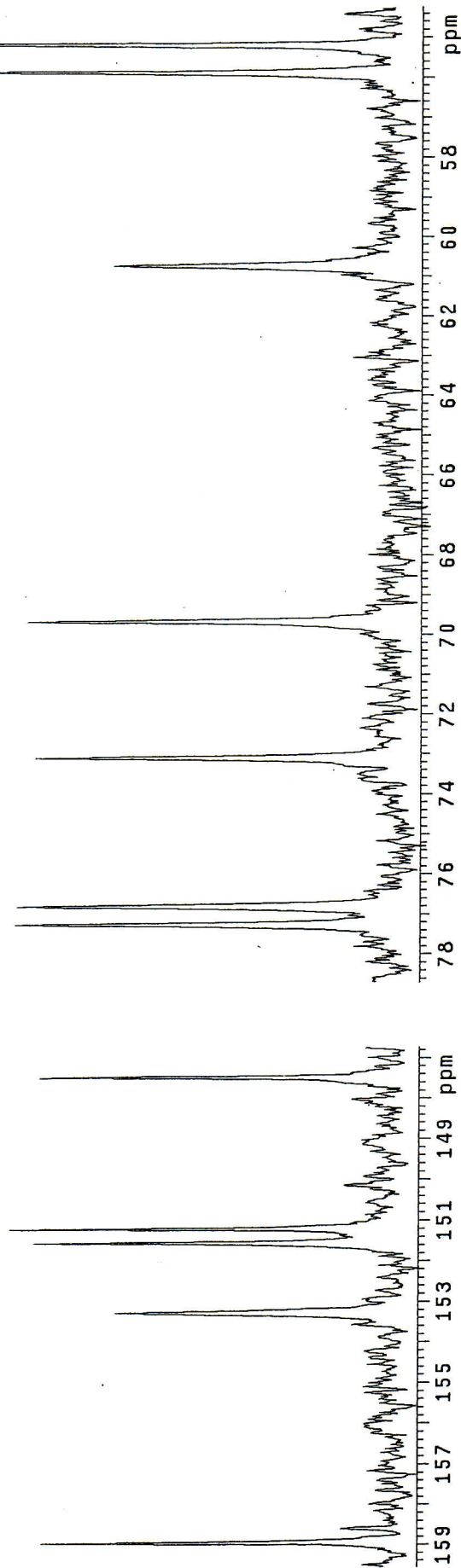


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Lot No.: 0310155



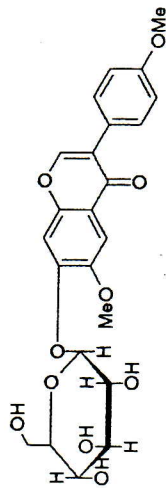
PKC 04092003
C13, DMSO-D6
SAS, 05-09-2003
Pulse Sequence: s2pu1



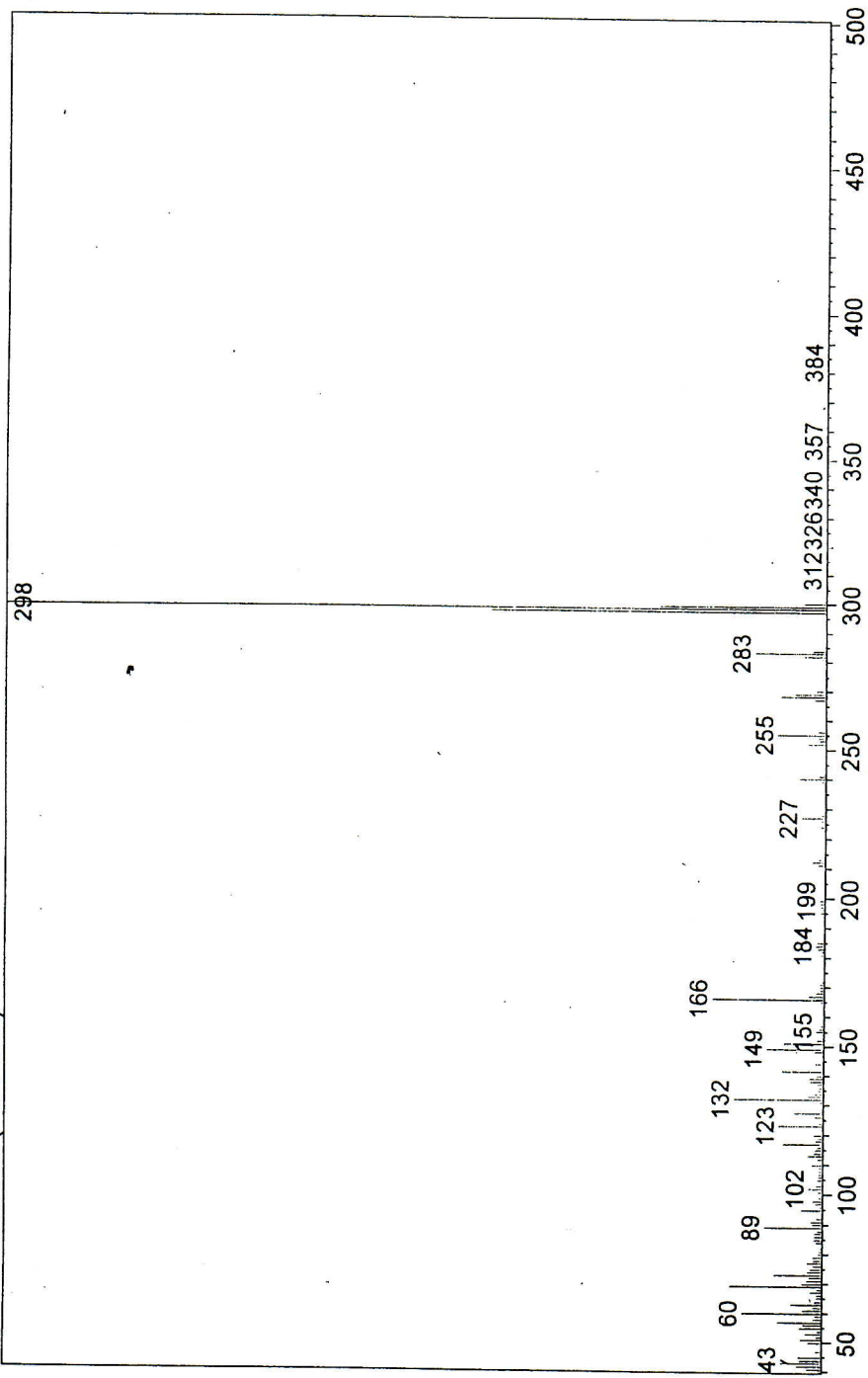


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Scan # : 2393 B.G. Scan # : (1191 - 1246)
Mass Peak # : 221 Ret. Time : 20.133
Base Peak : 298.20 (3858615)





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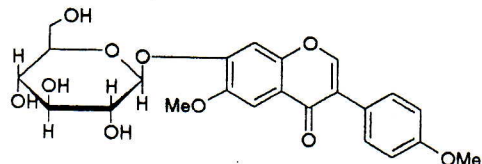
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Model P-1020 (A040560638)

Sample BRC04092003
Comment 1.43% in Acetic Acid (040903B)

Mode Specific O.R.
Light Na
Wavelength 589nm
Cell path 100.00 mm
Concentration 1.4320 w/v %
Factor 1.0000
Blank 0.0036 deg
Interval 5 sec
Integration 5 sec

Average -54.9302
S.D. 0.1872
C.V. -0.3408 %

No.	Sample No	Data	Temp.
No. 1	2(1/ 5)	-54.707	20.4
No. 2	2(2/ 5)	-54.979	20.6
No. 3	2(3/ 5)	-54.763	20.7
No. 4	2(4/ 5)	-55.077	20.9
No. 5	2(5/ 5)	-55.126	21.1