

Attachment 1

FEED SAMPLES FOR CONTAMINANT ANALYSIS AND VERIFICATION OF DIETARY CONCENTRATIONS OF TEST SUBSTANCE FORM

21077-03

Project No.: 42191 Work Plan/Protocol No. 01A2-17 Test Description: Study of Test Substance: Estradiol Sponsor: EPA

17B

Sample No.	Date Sampled	Mill Date	Sample Type	Feed Type ²	No. of Sacks In lot	Sampled	Storage Location ³ Building Room Freez	Laboratory/Date/ SCR no ⁴	Technician
AD5-01	10-03-03	08/16/02	C-R	Purina Gamebird Purina Gamebird	8	8	DSL 510 -5	Western Diagnostic Lab UTPM October 6, 2002	Daniel Wilhelm
AD5-02	10-03-03	08/16/02	C-R	Purina Gamebird Purina Gamebird	8	8	DSL 510 -5	Archive - Backup	Daniel Wilhelm

1 Sample for contaminant analysis such as phytoestrogens (C); Contaminant sample retained as backup (C-R); sample for verifying dieter / concentration in feeders (D) plus the Test Group (e.g. the nominal diet concentration); Dietary sample retained as backup (D-R) plus the Test Group (e.g. the nominal diet concentration).

2 Brand and type (for example, Purina Gamebird Chow/Startena)

3 Building/Room No./Freezer (if stored in freezer)

4 The laboratory to which the samples were sent for analysis and the date sent. The date sent should also appear on the Sample Custody Form (SCR). Enter the page number of the SCR on which the sample.

5 Stored at Ambient room temperature

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 21077-03
 ANALYSIS ESTROGEN ACTIVITY
 CHEMIST Dr George Rottinghaus

SAMPLE	wt	Volume	weight flask sample	Volume	FINAL Volume
Feed	5.0g	100ul	208.8g	1ml	1ml
CONTROL	5.0g	100ul	199.9g	1ml	1ml

COMMENTS: See _____ for Standards, Spike and Graph.

Atomic Absorption ___
 Spec. Ion Electrode ___
 Gas Liquid Chrom ___
 Thin Layer Chrom ___
 HPLC ___
 Other RIDASSAY ___

EXAMINED BY George E. Rottinghaus
 DATE 11-21-03

21077-03

D-7000 HSM: Estrogens

Series: 0833

Report: modified

System: Sys 1

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 11:42 AM

Reported: 11/17/03 02:59 PM

Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\

Processing Method: Soy phytoestrogens*YC

System(acquisition): Sys 1

Series:0833

Application: Estrogens

Vial Number: 1

Sample Name: Gen100/Dad100/Gly20

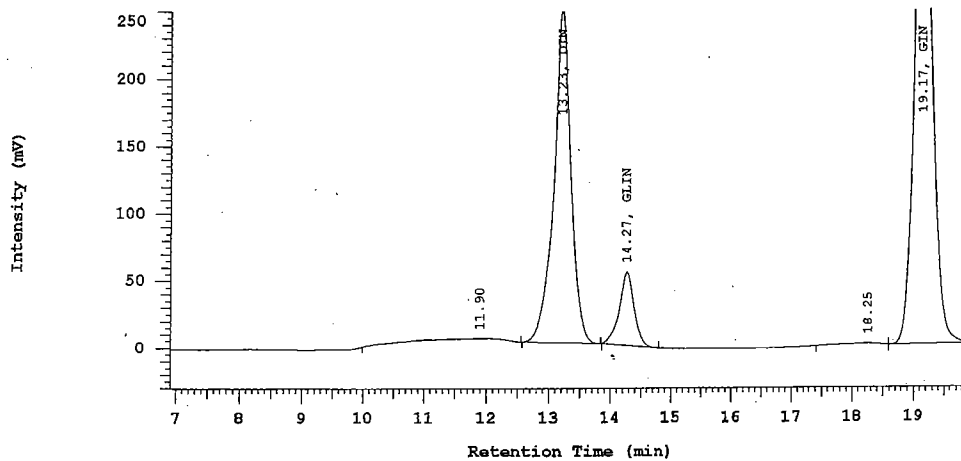
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	13.23	4755096	DIN	100.000	2000.00
3	14.27	914741	GLIN	20.0000	400.000
5	19.17	8788403	GIN	100.000	2000.00
		14458240		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 12:23 PM

Reported: 11/17/03 02:59 PM

Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0833

Application: Estrogens

Vial Number: 2

Sample Name: Gen10/Dad10/Gly2

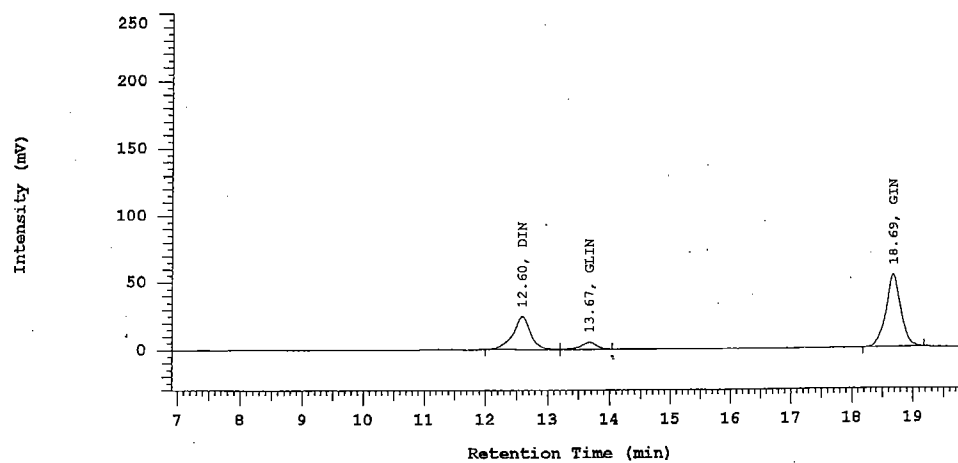
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	12.60	486710	DIN	10.0000	200.000
2	13.67	92050	GLIN	2.00000	40.0000
3	18.69	908831	GIN	10.0000	200.000
		1487591		22.0000	440.000

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 07:12 PM

Reported: 11/17/03 02:59 PM

Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0833

Application: Estrogens

Vial Number: 1

Sample Name: Gen100/Dad100/Gly20

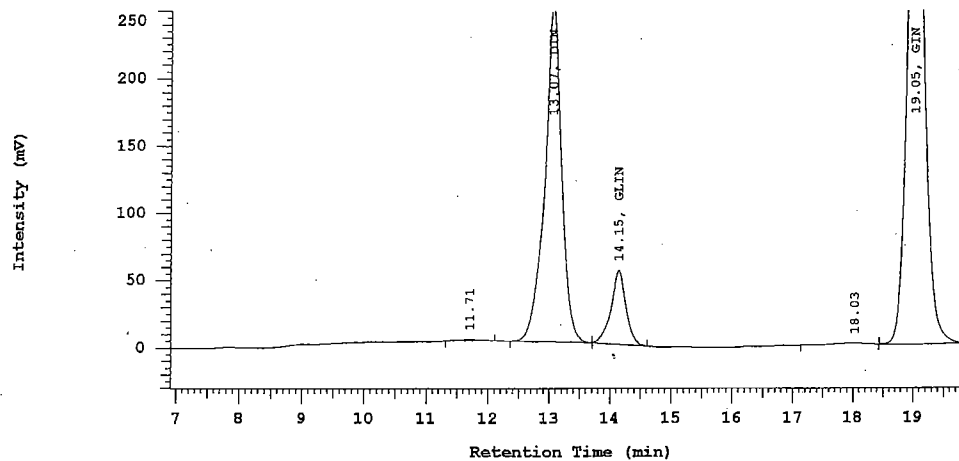
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	13.07	4820296	DIN	100.000	2000.00
3	14.15	934367	GLIN	20.0000	400.000
5	19.05	9005086	GIN	100.000	2000.00
		14759749		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 07:53 PM

Reported: 11/17/03 02:59 PM

Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0833

Application: Estrogens

Vial Number: 2

Sample Name: Gen10/Dad10/Gly2

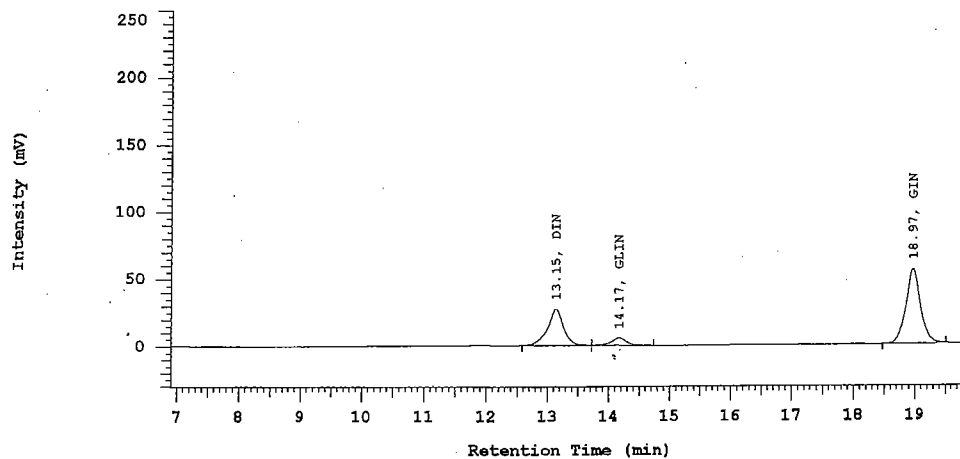
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

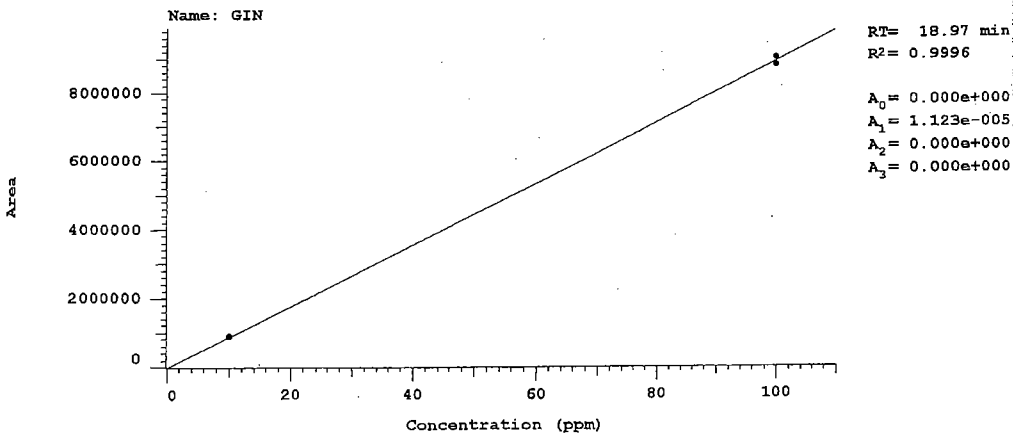
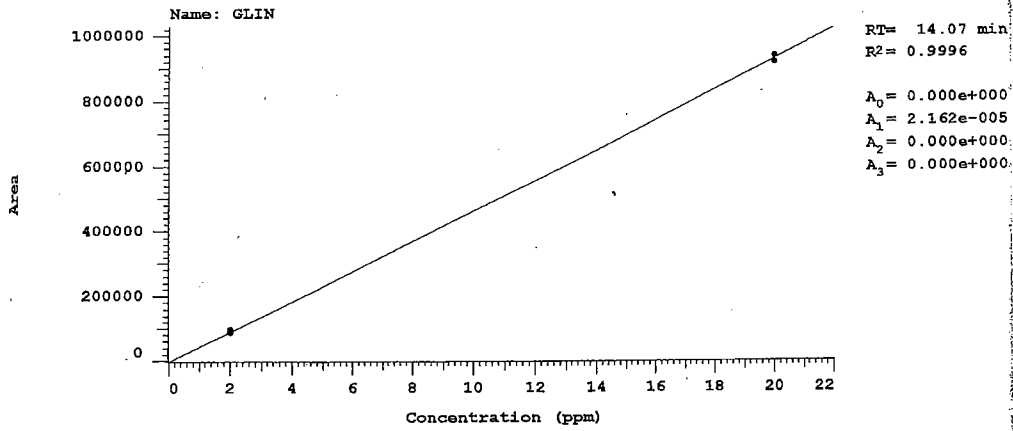
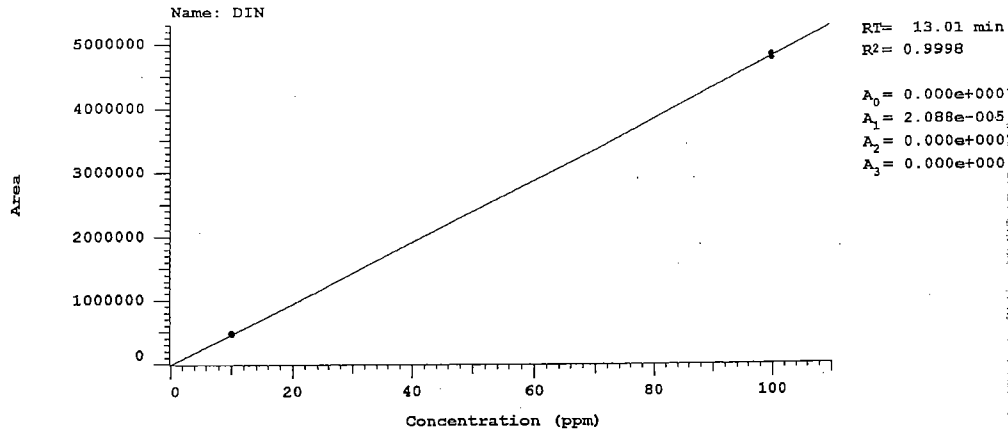
Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	13.15	505891	DIN	10.0000	200.000
2	14.17	101166	GLIN	2.00000	40.0000
3	18.97	926477	GIN	10.0000	200.000
		1533534		22.0000	440.000

Peak rejection level: 0

Channel 1 Calibration Curves and Results



D-7000 HPLC System Manager Report

Analyzed: 10/24/03 01:04 PM

Reported: 11/17/03 02:59 PM

Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0833

Application: Estrogens

Vial Number: 3

Sample Name: Control 1

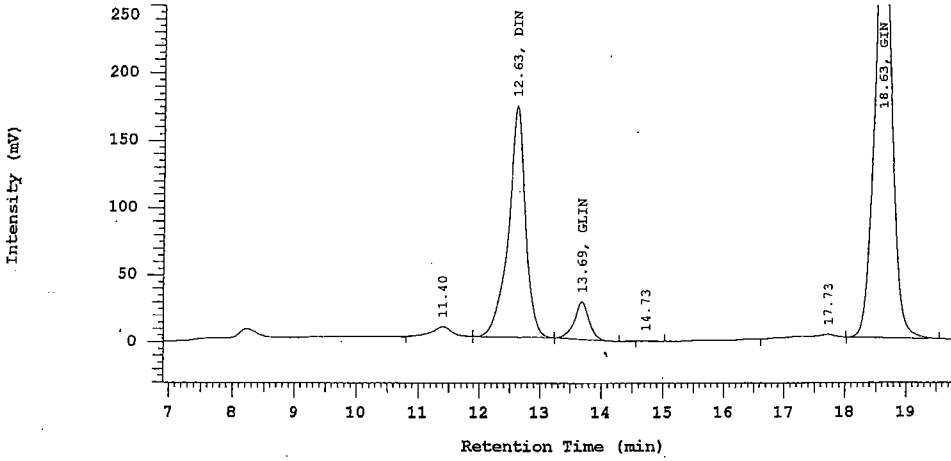
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	12.63	3392762	DIN	70.8341	1416.68 × 0.611 = 865 μM
3	13.69	459360	GLIN	9.93095	198.619 × 0.637 = 125 μM
6	18.63	6905972	GIN	77.5872	1551.74 × 0.625 = 970 μM
		10758094		158.352	3167.04

Peak rejection level: 0

DAIDZEIN 885 μM
 GLYCITRIN 135 μM
 GENISTEIN 990 μM

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 01:45 PM

Reported: 11/17/03 02:59 PM

Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0833

Application: Estrogens

Vial Number: 4

Sample Name: Control 2

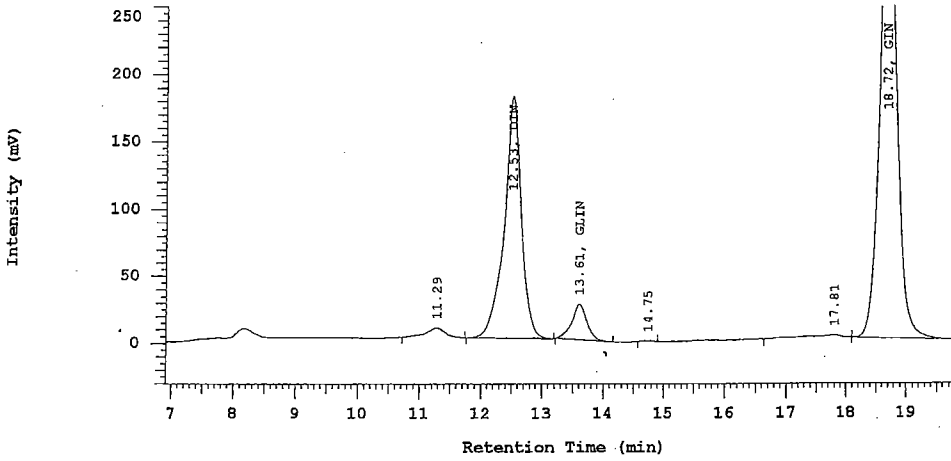
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	12.53	3515605	DIN	73.3988	$1467.98 \times 0.611 = 895$
3	13.61	455581	GLIN	9.84925	$196.985 \times 0.637 = 125$
6	18.72	7168488	GIN	80.5365	$1610.73 \times 0.625 = 1005$
		11139674		163.785	3275.69

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 02:26 PM

Reported: 11/17/03 02:59 PM

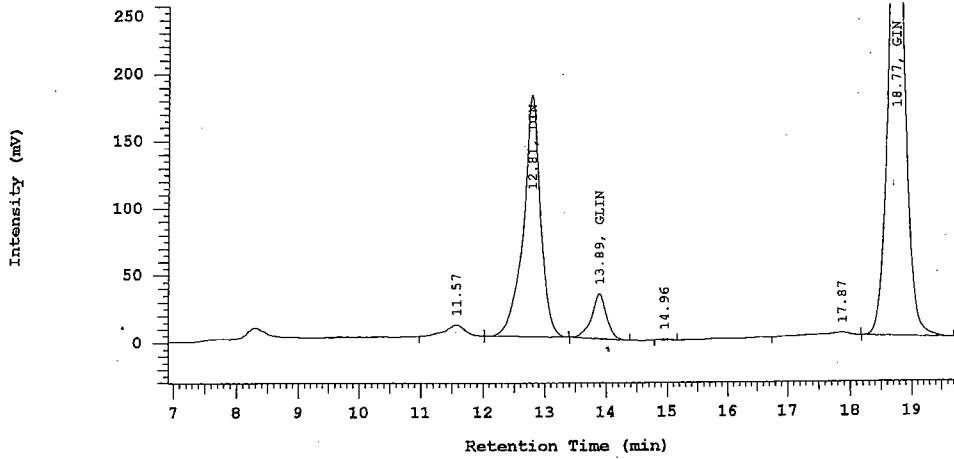
Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1
Application: Estrogens
Sample Name: Control 3
Injection from this vial: 1 of 1
Sample Description:

Series:0833
Vial Number: 5
Vial Type: UNK
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	12.81	3534494	DIN	73.7931	1475.86 X 0.611 = 900.11
3	13.89	558971	GLIN	12.0845	241.689 X 0.637 = 154.15
6	18.77	7124291	GIN	80.0400	1600.80 X 0.625 = 1000.5
		11217756		165.918	3318.35

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 03:07 PM

Reported: 11/17/03 02:59 PM

Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0833

Application: Estrogens

Vial Number: 6

Sample Name: Spike 1 (regular bird chow)

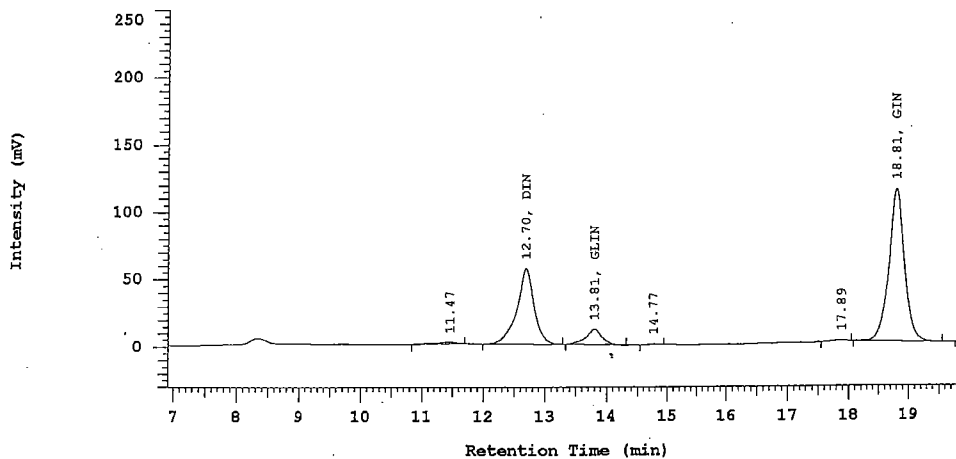
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	12.70	1103904	DIN	23.0473	460.946
3	13.81	207729	GLIN	4.49091	89.8182
6	18.81	2034495	GIN	22.8571	457.143
		3346128		50.3954	1007.91

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 03:47 PM

Reported: 11/17/03 02:59 PM

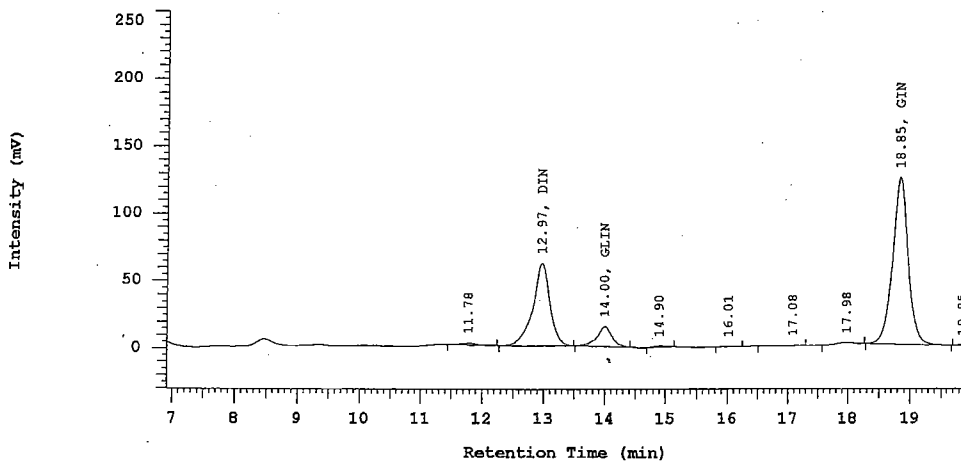
Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\
 Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1
 Application: Estrogens
 Sample Name: Spike 2 (regular bird chow)
 Injection from this vial: 1 of 1
 Sample Description:

Series:0833
 Vial Number: 7
 Vial Type: UNK
 Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	12.97	1180919	DIN	24.6552	493.105
3	14.00	254294	GLIN	5.49762	109.952
8	18.85	2139397	GIN	24.0357	480.714
		3574610		54.1885	1083.77

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 04:28 PM

Reported: 11/17/03 02:59 PM

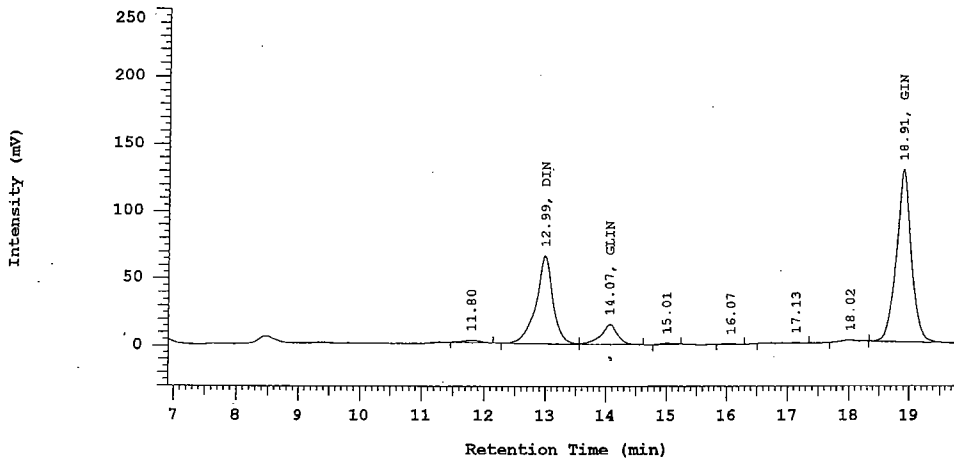
Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1
Application: Estrogens
Sample Name: Spike 3 (regular bird chow)
Injection from this vial: 1 of 1
Sample Description:

Series:0833
Vial Number: 8
Vial Type: UNK
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	12.99	1275188	DIN	26.6234	532.467 $\times 0.611 = 325$
3	14.07	277262	GLIN	5.99415	119.883 $\times 0.637 = 76$ pp
8	18.91	2227161	GIN	25.0217	500.434 $\times 0.625 = 312$ pp
		3779611		57.6392	1152.78

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 05:09 PM

Reported: 11/17/03 02:59 PM

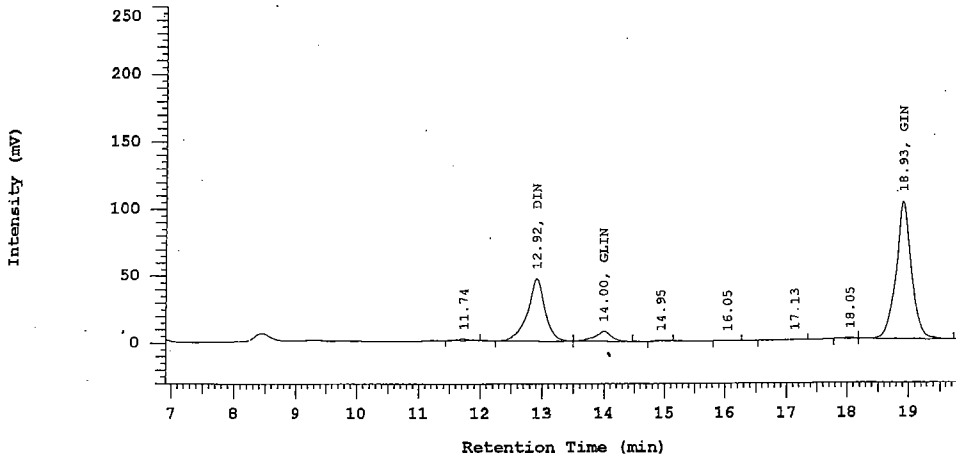
Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1
Application: Estrogens
Sample Name: Sample 1 (21077-03)
Injection from this vial: 1 of 1
Sample Description:

Series:0833
Vial Number: 9
Vial Type: UNK
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	12.92	920748	DIN	19.2234	$384.468 \times 0.611 = 235$
3	14.00	146777	GLIN	3.17319	$63.4637 \times 0.637 = 40$
8	18.93	1813295	GIN	20.3720	$407.440 \times 0.625 = 255$
		2880820		42.7686	855.372

Peak rejection level: 0

AUC.

DAIDZEIN - 250 ppm
 GLYCITEIN - 45 ppm
 GENISTEIN - 260 ppm

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 05:50 PM

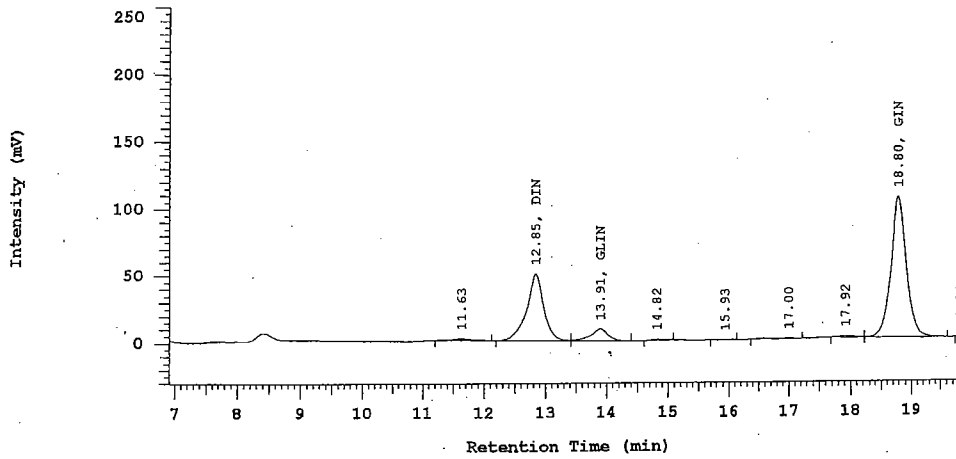
Reported: 11/17/03 02:59 PM
 Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\
 Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1
 Application: Estrogens
 Sample Name: Sample 2 (21077-03)
 Injection from this vial: 1 of 1
 Sample Description:

Series:0833
 Vial Number: 10
 Vial Type: UNK
 Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	12.85	973842	DIN	20.3319	$406.637 \times 0.611 = 250.1$
3	13.91	172650	GLIN	3.73254	$74.6507 \times 0.637 = 48.11$
8	18.80	1846583	GIN	20.7460	$414.920 \times 0.625 = 260.1$
		2993075		44.8104	896.208

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 10/24/03 06:31 PM

Reported: 11/17/03 02:59 PM

Processed: 11/17/03 02:59 PM

Data Path: F:\HSM\Estrogens\DATA\0833\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0833

Application: Estrogens

Vial Number: 11

Sample Name: Sample 3 (21077-03)

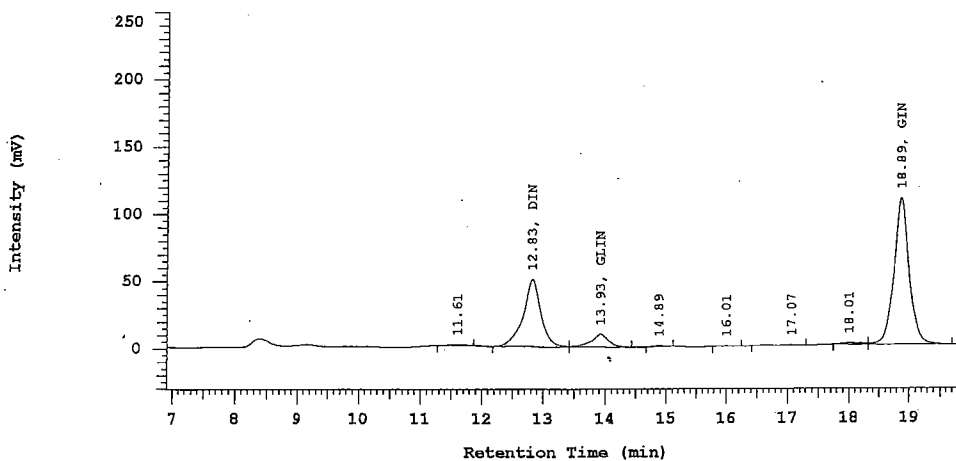
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	12.83	1012813	DIN	21.1455	422.910 $\times 0.61 = 258M$
3	13.93	183041	GLIN	3.95719	79.1437 $\times 0.637 = 50M$
8	18.89	1911555	GIN	21.4759	429.519 $\times 0.625 = 270M$
		3107409		46.5786	931.573

Peak rejection level: 0

BENCH SHEET
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 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 21077-03

ANALYSIS Mycotoxin Screen

CHEMIST Dr George Rottinghaus

SAMPLE	Amt	mls used	ul spotted	afatoxin	vomitoxin	zearalenone	ochratoxin
C18 SE FOOD	50.00g	5/100	10/100	N/D	—	N/D	N/D
	—	10/100	10/100	—	N/D	—	—
Standards	—	—	10	.45	.40	.24	.34

COMMENTS: See 24199-03 for TLC Standards and Spike

- Spiked with 100 ul each: 25 ppm zearalenone, 2.5 ppm ochratoxin A, 0.5 ppm aflatoxin B₁
- Spiked with 100 ul 25 ppm vomitoxin

DL

Afl - 0.02 ppm
 Ochr - 0.05 ppm
 Zear - 0.5 ppm
 Vom - 0.5 ppm

EXAMINED BY Charles Coatsney
 DATE 11/24/03

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 21077-03
 ANALYSIS ESTROGENS
 CHEMIST Dr George Rottinghaus

SAMPLE	Amt.	Volume	wt. flask + sample	Volume	Final Volume
gamebird FEED	2.0g	100ml	206.4g	1ml	1ml
SOY	2.0g	100ml	207.7g	1ml	1ml

COMMENTS: See _____ for Standards, Spike and Graph.

Atomic Absorption ___
 Spec. Ion Electrode ___
 Gas Liquid Chrom ___
 Thin Layer Chrom ___
 HPLC ___
 Other bioassay MCF-7 cells

EXAMINED BY George E. Rottinghaus
 DATE _____

CFExtr Rprt 11-30-03 031703JT01 [Curve Fit]

CURVE FITTING WORKSHEET, DOSE-RESPONSE

DNA = Ctrl + ((Emax-Ctrl)*Conc)/(EC50+Conc)

Exp Date: 11-21-2003
 ID#: 031117JT01
 Sample: 21077-03

Axis Label: Concentration
 X-Axis: DNA
 Y-Axis: DNA

Axis Units: mg eq/ml
 do not change

Reference Standard: Zearalenone

Ctrl	0.489725	± 0.013519
AE	0.4691	± 0.016463
E-11	0.873875	± 0.025949
E-10	0.961975	± 0.062817
blank	0.0465125	± 0.00364
Ctrl	0.568075	± 0.028372
PlateCtrl:	0.489725	0.53263333
E2Max:	0.873875	0.932975
AE:	0.4691	

Emax=0.933
 Ctrl=0.48973

Concentration (mg eq/ml)

Concentration (mg eq/ml)	DNA (µg/well)	Frac Resp	Use for Hill plot? (y/n)	Use for Hill plot? (y/n)
0.00047403	0.64455	0.34929498	n	n
0.00143763	0.53263333	0.09680391	y	y
0.00465689	0.60983333	0.27097199	y	y
0.01558707	0.72446667	0.52959203	y	y
0.06578155	0.822075	0.74980259	y	y
0.2	0.932975	1	y	n

Data pairs 6
 Curve Fit pairs 5

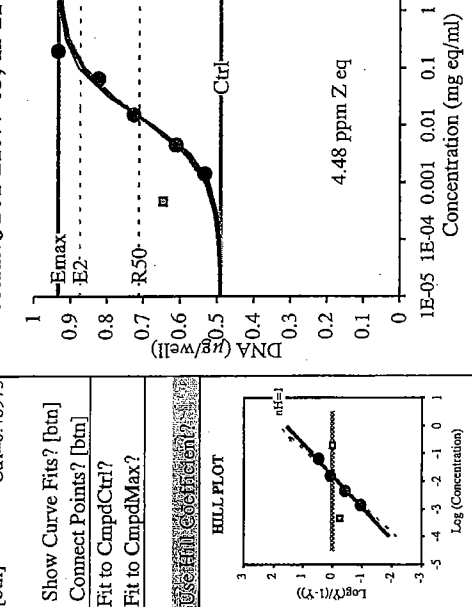
Std Cmpd Eq = Std Cmpd EC50 ÷ Smp1 EC50

Use as Std:	Std Cmpd	Abbr	MTW	Std Cmpd EC50	M
<input checked="" type="radio"/>	Zearalenone	Z	318.4	6.37E-11	2.00E-10
<input type="radio"/>	Genistein	Gen	270.24	3.89E-08	1.44E-07
<input type="radio"/>	Bisphenol A	BPA	228.3	5.84E-08	2.56E-07
<input type="radio"/>	Zearalenol	Ra/Gro	322.4	1.13E-12	3.50E-12
<input type="radio"/>	Estradiol	E2	272.4	3.84E-13	1.43E-12
<input type="radio"/>	Diethylstilbestrol	DES	268.4	6.98E-14	2.60E-13

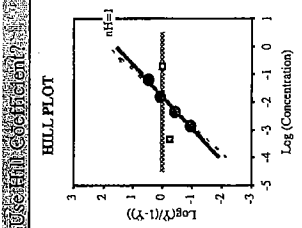
Enter data ONLY in the shaded cells. To change the # of points, insert or delete complete rows from the middle of the data range. Use "Paste Values", not "Paste", to enter data from other wks. Concentrations: ASCENDING ORDER; use SORT button

Curve Fit EC50: 0.01422665 mg eq/ml
 R=99.011%
 CF EC50 with nH: 0.01422665 mg eq/ml ± 0.002194
 R=98.981%
 P=0.175377
 nH = 0.87129325 ± 0.0624314
 Line Est EC50: 0.0135747 mg eq/ml
 EC50: 0.0142 mg eq/ml
 Std Eq: 4.48 ppm Z eq

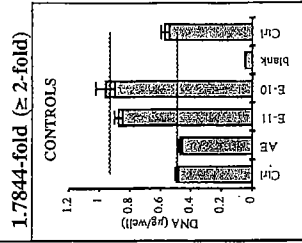
031117JT01-21077-03; 11-21-03



(-5) (1) (IE-05) (IE+01)



Specifications:
 (Bold-face if outside)
 Confluent above:
 2.5 µg/well
 %Confluent:
 35% (± 100%)
 AE/Ctrl:
 96% (± 90%)
 Emax/Ctrl:
 1.7844-fold (± 2-fold)



LoD = "Limit of Detection"
 Z eq ranges:
 0.006 ppm: LoD
 < 0.064 ppm: V Low
 0.064 to < 1 ppm: Low
 ≥ 1 and < 10 ppm: Moderate
 ≥ 10 ppm: High

CFExtr Rprt 11-30-03 031103JT02 [Curve Fit]

CURVE FITTING WORKSHEET, DOSE-RESPONSE

DNA = Ctrl + ((Emax-Ctrl)*Conc)/(EC50+Conc)

Exp Date: 11-7-2003

ID#: 031103JT02

Sample: Control

Axis Label: Concentration

X-Axis: Concentration

Y-Axis: DNA

Enter data ONLY in the shaded cells. To change the # of points, insert or delete complete rows from the middle of the data range. Use "Paste Values", not "Paste", to enter data from other wks. Concentrations: ASCENDING ORDER; use SORT button.

Curve Fit EC50: 0.0104271 mg eq/ml ±0.0039035 R=95.300%
 nH = 1.86695424 (NA, df<1) (NA, df<1)

Line Est EC50: 0.0119467 mg eq/ml
 EC50: 0.011 mg eq/ml
 Std Eq: 3540 ppm Gen eq

Emax=1.329
 Ctrl=0.53305

Show Curve Fits? [btn] y

Connect Points? [btn] n

Fit to CmpdCtrl? y

Fit to CmpdMax? y

Use for Hill plot? [y/n] y

Use for D-R fit? [y/n] y

Frac Resp plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Use for Hill plot? [y/n] y

Exp Date: 11-7-2003

ppth - mg/ml

ppm - µg/ml

ppb - ng/ml

ppi - pg/ml

ppq - fg/ml

for nH ≠ 1

Specifications:

(Bold-face if outside)

Confluent above: 2.5 µg/well

%Confluent: 51% (≤ 100%)

AE/Ctrl: 99% (≥ 90%)

Emax/Ctrl: 2.388-fold (≥ 2-fold)

2.388-fold (≥ 2-fold)

CONTROLS

DNA (µg/well)

Ctrl

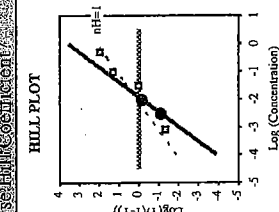
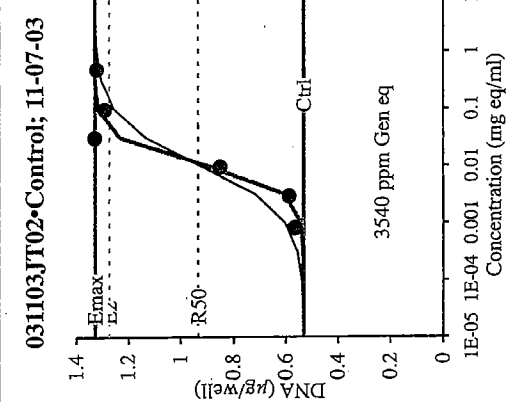
Blank

E-10

E-11

AE

Ctrl



(-5) (1) (IE-05) (1E+01)

Std Cmpd Eq = Std Cmpd EC50 ÷ Smp1 EC50

Use as Std:	Std Cmpd	Abbr	MW	Std Cmpd EC50:	Str. Line	Curve Fit	Hill Fit	Eq. Unit	LoD = "Limit of Detection"
	Zearalenone	Z	318.4	6.37E-11	5.3303595	6.09803532	7.91722	ppm	0.006 ppm: LoD
	Genistein	Gen	270.24	3.8915E-08	3257.3586	3726.4818	5557.0186	ppm	< 0.064 ppm: V. Low
	Bisphenol A	BPA	228.3	5.84E-08	4892.145	5596.7094	2113.21076	ppm	0.064 to < 1 ppm: Low
	Zearalanol	RafGro	322.4	1.13E-12	0.0944532	0.10805627	0.1025873	ppm	≥ 1 and < 10 ppm: Moderate
	Estradiol	E2	272.4	3.84E-13	32.149902	36.7801162	1.010364	ppb	≥ 10 ppm: High
	Diethylstilbestrol	DES	268.4	6.98E-14	5.8412972	6.68255805	6.3405623	ppb	

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 21077-03

ANALYSIS Ergot Screen

CHEMIST Dr George Rottinghaus

SAMPLE	amt	vol	Final	ergosine	ergotamine	ergocornine	ergocryptine	ergocristine
		used	Vol					
fecal	10g	10/100	2ml	-	-	-	-	-
ERGOT	0.5g	1/100	10ml	+	+	+	+	+

COMMENTS: See 22265-03 for Standards, Spike and Graph.

<u>Alkaloid</u>	<u>Conc</u>	<u>RT</u>	<u>Pk Ht</u>	<u>RsF</u>	<u>Sample RT</u>	<u>Pk Ht</u>	<u>Conc</u>
Ergosine							
Ergotamine							
Ergocornine							
Ergocryptine							
Ergocristine							

M224 method

EXAMINED BY George E. Rottinghaus

Ergosil method

DATE 10/30/03

D-7000 HPLC System Manager Report

Analyzed: 10/30/03 11:50 AM

Reported: 10/31/03 01:37 PM

Processed: 10/31/03 01:37 PM

Data Path: C:\Win32App\HSM\samples\DATA\0692\

Processing Method: ergot screen

System(acquisition): Sys 1

Series:0692

Application: Samples

Vial Number: 1

Sample Name: 100 ppb ergot mix

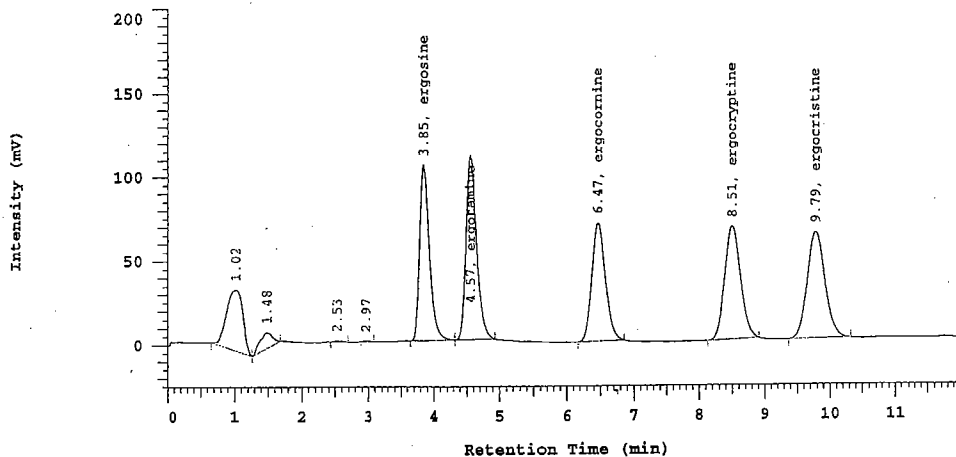
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergosine	3.85	1077651	100.000	200.000
ergotamine	4.57	1233276	100.000	200.000
ergocornine	6.47	985731	100.000	200.000
ergocryptine	8.51	1134491	100.000	200.000
ergocristine	9.79	1193459	100.000	200.000
		5624608	500.000	1000.00

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 10/30/03 02:13 PM

Reported: 10/31/03 01:37 PM

Processed: 10/31/03 01:37 PM

Data Path: C:\Win32App\HSM\samples\DATA\0692\

Processing Method: ergot screen

System(acquisition): Sys 1

Series: 0692

Application: Samples

Vial Number: 1

Sample Name: 100 ppb ergot mix

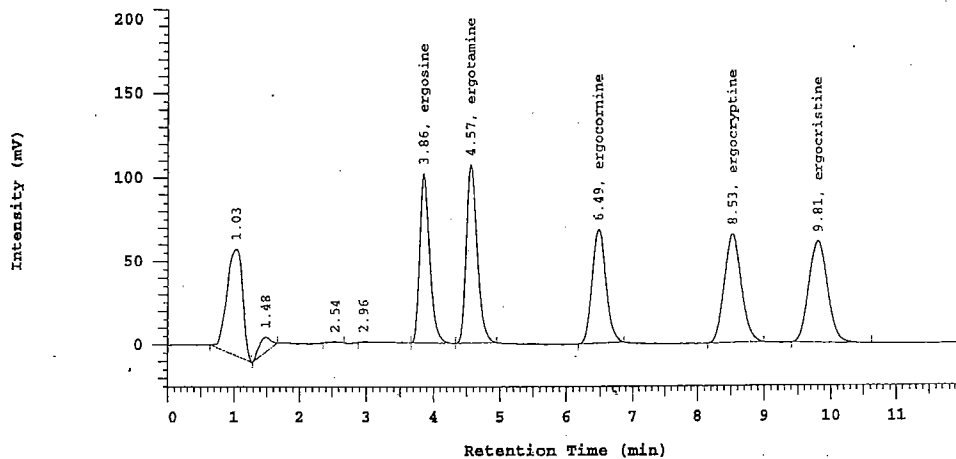
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

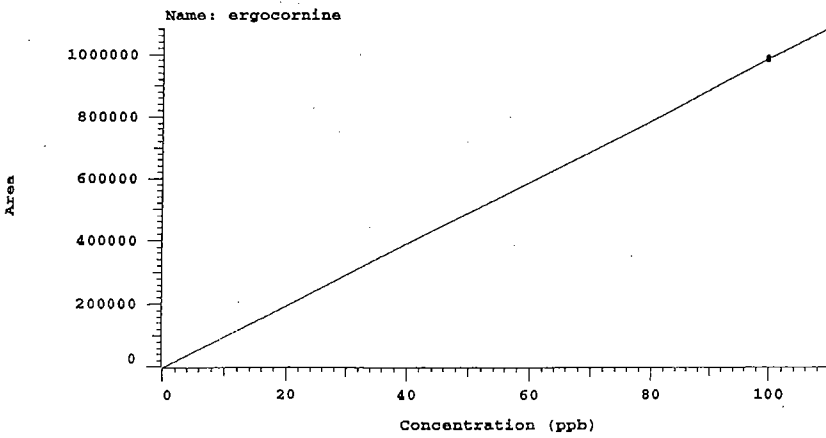
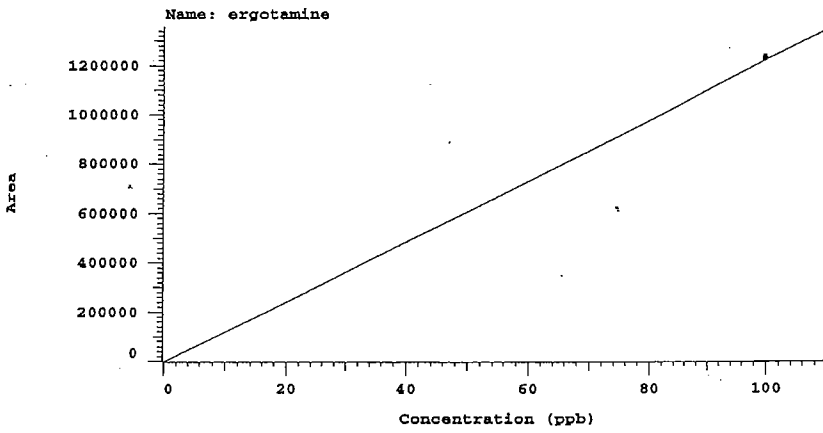
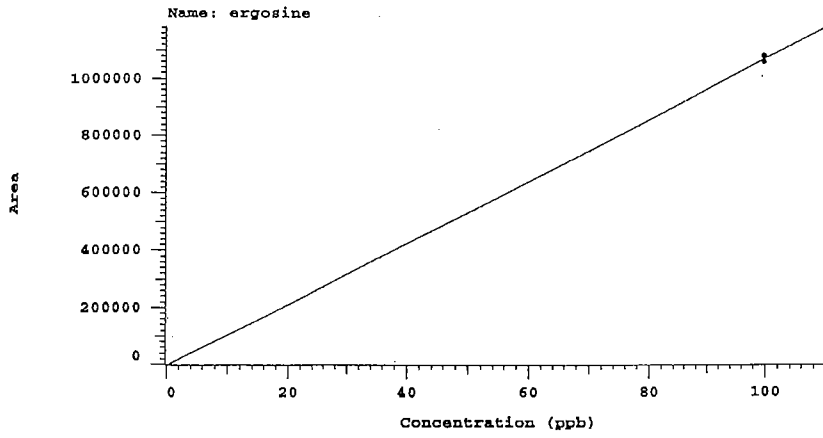
Chrom Type: HPLC Channel : 2

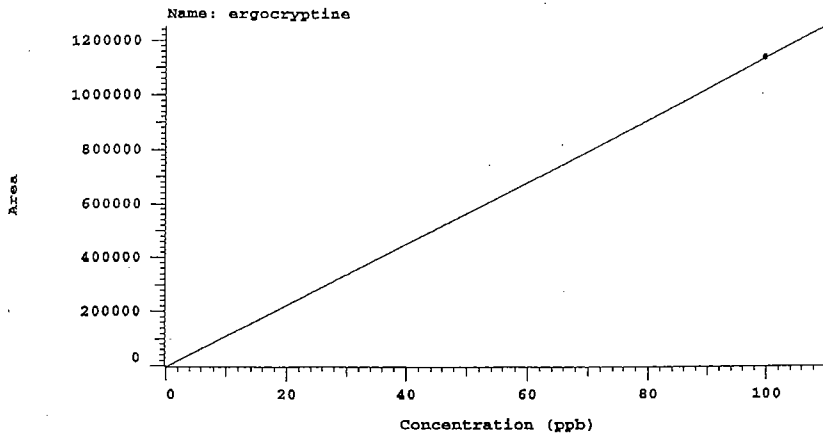


Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergosine	3.86	1056145	100.000	200.000
ergotamine	4.57	1227806	100.000	200.000
ergocornine	6.49	978967	100.000	200.000
ergocryptine	8.53	1140524	100.000	200.000
ergocristine	9.81	1194799	100.000	200.000
		5598241	500.000	1000.00

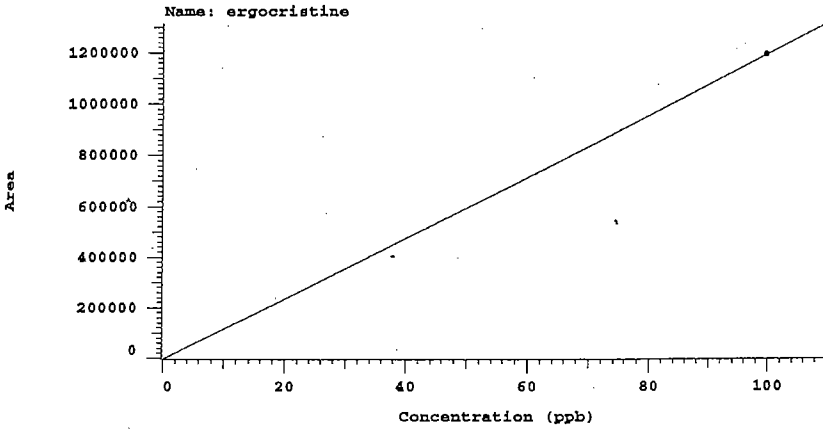
Peak rejection level: 10

Channel 2 Calibration Curves and Results





RT= 8.52 min
 2xSD = 8.531e+003
 A₀ = 0.000e+000
 A₁ = 8.791e-005
 A₂ = 0.000e+000
 A₃ = 0.000e+000



RT= 9.80 min
 2xSD = 1.895e+003
 A₀ = 0.000e+000
 A₁ = 8.374e-005
 A₂ = 0.000e+000
 A₃ = 0.000e+000

Name	Pts	A0	A1	A2	A3	2 x SD	Units
ergosine	2	0.000E+00	9.372E-05	0.000E+00	0.000E+00	3.041E+04	ppb
ergotamine	2	0.000E+00	8.126E-05	0.000E+00	0.000E+00	7.736E+03	ppb
ergocornine	2	0.000E+00	1.018E-04	0.000E+00	0.000E+00	9.565E+03	ppb
ergocryptine	2	0.000E+00	8.791E-05	0.000E+00	0.000E+00	8.531E+03	ppb
ergocristine	2	0.000E+00	8.374E-05	0.000E+00	0.000E+00	1.895E+03	ppb

Least Squares Analysis
 Order: Linear - f(Response)
 Through zero: YES
 Weight factor: 1.0

D-7000 HPLC System Manager Report

Analyzed: 10/30/03 01:47 PM

Reported: 10/31/03 01:37 PM

Processed: 10/31/03 01:37 PM

Data Path: C:\Win32App\HSM\samples\DATA\0692\

Processing Method: ergot screen

System(acquisition): Sys 1

Series:0692

Application: Samples

Vial Number: 10

Sample Name: 21077-03

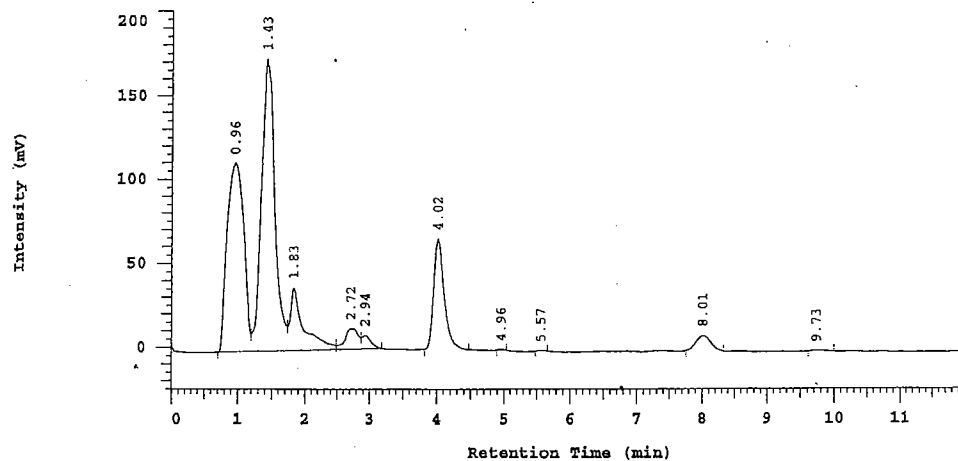
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
		0	0.000000	0.000000

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 10/30/03 02:00 PM

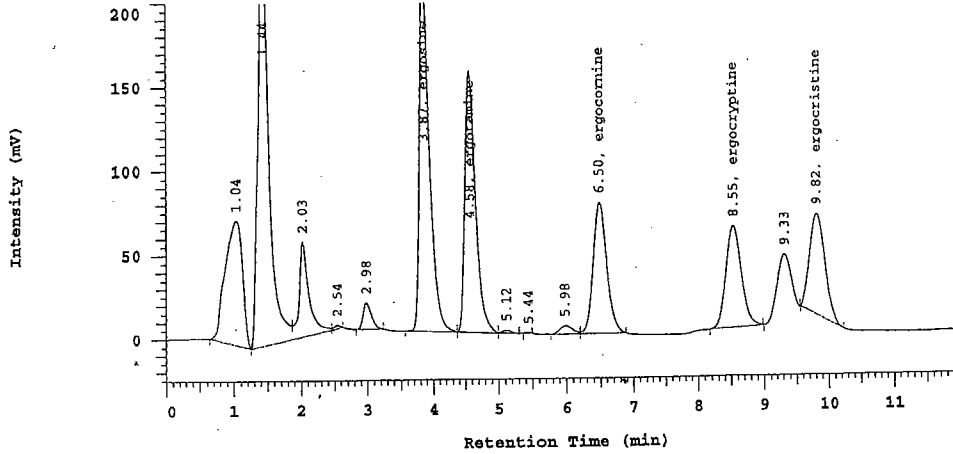
Reported: 10/31/03 01:37 PM
Processed: 10/31/03 01:37 PM

Data Path: C:\Win32App\HSM\samples\DATA\0692\
Processing Method: ergot screen

System(acquisition): Sys 1
Application: Samples
Sample Name: ergot
Injection from this vial: 1 of 1
Sample Description:

Series: 0692
Vial Number: 11
Vial Type: UNK
Volume: 20.0 ul

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergosine	3.87	2377055	222.778	445.556
ergotamine	4.58	1758455	142.900	285.800
ergocornine	6.50	1099584	111.933	223.866
ergocryptine	8.55	991421	87.1567	174.313
ergocristine	9.82	1000485	83.7837	167.567
		7227000	648.551	1297.10

Peak rejection level: 10

TJE

CHAIN OF CUSTODY RECORD FOR HISTOLOGICAL, CHEMICAL AND BIOCHEMICAL SAMPLES

OK

1379-04

SAMPLE CUSTODY RECORD Date 1/22/04 Page 1 of 1

Battelle Marine Sciences Laboratory 1529 West Sequim Bay Road Sequim, Washington 98362

Project No.: 44626
 Project Name: Avian Dosing Study
 Project Manager: Crystal Driver
 Phone: 509-375-2721

To: Vet Med Diagnostic Laboratory
 Address: College of Veterinary Medicine-University of Missouri
 Columbia, MO 65211
 Attn: Dr. George Rottinghaus

Lab No.	Sample No.	Collection Date	Matrix	Parameters							Number of Containers	Mill Date/Lot Number
				Total Estrogens	Genistein, daidzein	Mycotoxin Screen	Egrets					
PNNL	ADS-03	October 2003	Layena Game bird Chow	X	X	X	X				2	03OCT09. Feed store at ambient Room temperature.
total # of containers 2												

Relinquished by: Danielle Wharton / 1/22/04 1300
 Signature Date Time
 Printed Name Company
 Relinquished by: _____
 Signature Date Time
 Printed Name Company

Received by: George E. Rottinghaus / 1/23/04 10:00 AM
 Signature Date Time
 Printed Name Company
 Received by: _____
 Signature Date Time
 Printed Name Company

Shipment Method:
 Special Requirements or Conditions:
 Sample Disposition:
 Distribution:
 1. 2 copies to the Laboratory
 2. 1 copy project manager
 3. Return completed original to Battelle Marine Sciences Laboratory

Please fax form to 509-375-6666 upon receipt with receipt signature. Please enclose the original form with test results

Bag 1 2 fed
Bag 2

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 1379-04
 ANALYSIS ESTROGEN ACTIVITY
 CHEMIST Dr George Rottinghaus

SAMPLE	Ant volume	wt	Blow DOWN	FINAL volume		
#1	2g. 100ml	204.0g	1/100	1ml		
#2	2g.0 100ml	206.3g	1/100	1ml		
CONTROL	2g 100ml	207.3g	1/100	1ml		

COMMENTS: See _____ for Standards, Spike and Graph.

Atomic Absorption ___
 Spec. Ion Electrode ___
 Gas Liquid Chrom ___
 Thin Layer Chrom ___
 HPLC ___
 Other BIDASYH MCF-7 cell line.

EXAMINED BY George E. Rottinghaus
 DATE _____

CFExtr Rprt 2-13-04 040209JT01 [Curve Fit]

CURVE FITTING WORKSHEET, DOSE-RESPONSE

Exp Date: 2-13-2004

DNA = Ctrl + ((Emax-Ctrl)*Conc)/(EC50+Conc)

Exp Date: 2-13-2004
 ID#: 040209JT01
 Sample: 1379-04 #1

Axis Label: Concentration
 Axis Units: mg eq/ml
 X-Axis: Concentration
 Y-Axis: DNA

Reference Standard:
 Zearalenone
 (Z)

Ctrl	0.43798079	± 0.011425
AE	0.3910611	± 0.008888
E-11	1.07414666	± 0.028712
E-10	0.91098733	± 0.005436
blank	0.05727464	± 0.002184
Ctrl	0.52712998	± 0.021499
PlateCtrl:	0.43798079	0.56346257
E2Max:	1.07414666	1.31378728
AE:	0.3910611	

Concentration (mg eq/ml)	DNA (ug/well)	Frac Resp	Use for Hill fit? (y/n)	Use for Hill plot? (y/n)
7.1274E-05	0.56346257	0.14327568	n	n
0.00121732	0.61708291	0.20449964	y	y
0.00492552	0.80088005	0.4143601	y	y
0.01910582	1.21018151	0.88170243	y	y
0.07632329	1.31378728	1	y	n
0.2	1.23936708	0.91502666	n	n

Data pairs: 6
 Curve Fit pairs: 4

Std Cmpd Eq = Std Cmpd EC50 ÷ Smpl EC50

Use as Std:	Std Cmpd	Abbr	MW	Std Cmpd	M
●	Zearalenone	Z	318.4	2.00E-10	
○	Genistein	Gen	270.24	9.65E-09	
○	Bisphenol A	BPA	228.3	2.56E-07	
○	Zearalanol	RalGro	322.4	3.50E-12	
○	Estradiol	E2	272.4	1.41E-12	
○	Diethylstilbestrol	DES	268.4	2.60E-13	

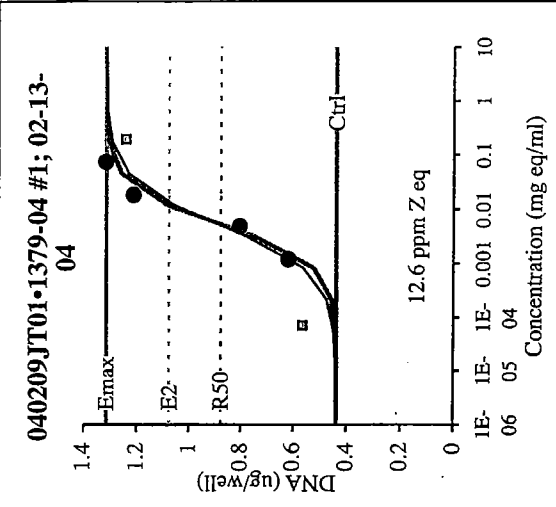
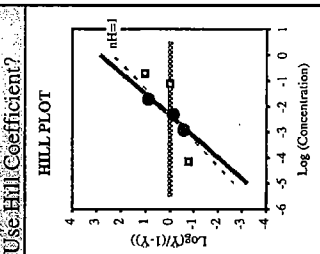
Enter data ONLY in the shaded cells. To change the # of points, insert or delete complete rows from the middle of the data range. Use "Paste Values", not "Paste", to enter data from other wks. Concentrations: ASCENDING-ORDER; use SORT button

Curve Fit EC50: 0.00505513 mg eq/ml
 CF EC50 with nH: 0.00525973 mg eq/ml
 Line Ext EC50: 0.0063144 mg eq/ml
 nH = 1.22031162 ± 0.2922464

Emax=1.314
 Ctrl=0.43798

Show Curve Fits? [btn]
 Connect Points? [btn]
 Fit to CmpdCtrl?
 Fit to CmpdMax?

Use Hill Coefficient?

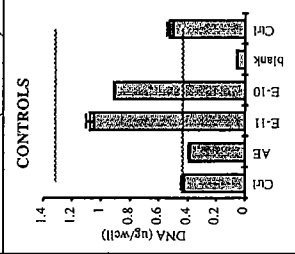


040209JT01*1379-04 #1; 02-13-04

Exp Date: 2-13-2004
 ppth - mg/ml
 ppm - µg/ml
 ppb - ng/ml
 ppt - pg/ml
 ppq - fg/ml

for nH ≠ 1
 P = 0.588766

Specifications:
 (Bold-face if outside)
 Confluent above: 2.5 ug/well
 %Confluent: 43% (≤ 100%)
 AE/Ctrl: 89% (≥ 90%)
 Emax/Ctrl: 2.4525-fold (≥ 2-fold)



Standard Compound	Equivalent	Hill Fit	Eq Unit
6.37E-11	10.084858	12.6471381	ppm
2.61E-09	412.99392	517.921356	ppm
5.84E-08	9.2557708	11.6074095	ppbf
1.13E-12	0.1787022	0.22210538	ppm
3.84E-13	60.826514	76.2869819	ppb
6.98E-14	11.051534	13.8594203	ppb

LoD = "Limit of Detection"
 Z eq ranges:
 0.006 ppm: LoD
 < 0.064 ppm: V. Low
 0.064 to < 1 ppm: Low
 ≥ 1 and < 10 ppm: Moderate
 ≥ 10 ppm: High

CFExtr Rprt 2-13-04 040209JT02 [Curve Fit]

CURVE FITTING WORKSHEET, DOSE-RESPONSE

Exp Date: 2-13-2004

DNA = Ctrl + ((Emax-Ctrl)*Conc)/(EC50+Conc)

Exp Date: 2-13-2004

ID#: 040209JT02

Sample: 1379-04 #2

Axis Label: Axis Units:

X-Axis: Concentration mg eq/ml < do not change

Y-Axis: DNA ug/well

Reference Standard: Zearalenone

Ctrl 0.43798079 ± 0.011425

AE 0.3910611 ± 0.008888

E-11 1.07414666 ± 0.028712

E-10 0.91098733 ± 0.005436

blank 0.05727464 ± 0.002184

Ctrl 0.52712998 ± 0.021499

PlateCtrl: 0.43798079 0.47791235 CmpdCtrl

E2Max: 1.07414666 1.12567301 CmpdMax

AE: 0.3910611

[Done]

Concentrator DNA Use for D-R Frac Resp Use for Hill

(mg eq/ml) (ug/well) fit? (y/n) Y plot? (y/n)

7.1274E-05 0.47791235 y 0.05806603 y

0.00121732 0.54394235 y 0.15408281 y

0.00492552 0.75652688 y 0.46321025 y

0.01910582 1.04593095 y 0.88404396 y

0.07632329 1.12567301 y 1 n

0.2 1.08172861 n 0.93609874 n

Data pairs 6 Bold indicates

Curve Fit pairs 5 0.05<Y<0.95

Std Cmpd Eq = Std Cmpd EC50 ÷ Smpl EC50

Use as Std:	Std Cmpd	Abbr	MW	Std Cmpd EC50:	Std Cmpd	M
<input checked="" type="radio"/>	Zearalenone	Z	318.4	6.37E-11	2.00E-10	
<input type="radio"/>	Genistein	Gen	270.24	2.61E-09	9.65E-09	
<input type="radio"/>	Bisphenol A	BPA	228.3	5.84E-08	2.56E-07	
<input type="radio"/>	Zearalanol	RalGro	322.4	1.13E-12	3.50E-12	
<input type="radio"/>	Estradiol	E2	272.4	3.84E-13	1.41E-12	
<input type="radio"/>	Diethylstilbestrol	DES	268.4	6.98E-14	2.60E-13	

Enter data ONLY in the shaded cells. To change the # of points, insert or delete complete rows from the middle of the data range. Use "Paste Values", not "Paste", to enter data from other wks. Concentrations: ASCENDING-ORDER-use SORT button

Curve Fit EC50: 0.00283833 mg eq/ml ±0.0009135 R=98.817%

CF EC50 with nH: 0.00463381 mg eq/ml ±0.0014173 R=97.510%

nH = 0.82470421 ±0.2052414 P = 0.483028 for nH ≠ 1

Line Est EC50: 0.0055452 mg eq/ml

EC50: 4.84 µg eq/ml

Std Eq: 13.2 ppm Z eq

Emax=1.126

Ctrl=0.43798

040209JT02•1379-04 #2; 02-13-04

DNA (ug/well)

Concentration (mg eq/ml)

1E- 1E- 1E- 0.001 0.01 0.1 1 10

06 05 04

13.2 ppm Z eq

Emax

R50

Ctrl

CONTROLS

DNA (ug/well)

1.2 1 0.8 0.6 0.4 0.2 0

Blank

E-10

E-11

Ctrl

2.4525-fold (≥ 2-fold)

AE/Ctrl: 89% (≥ 90%)

Emax/Ctrl: 2.4525-fold (≥ 2-fold)

2.5 µg/well

43% (≤ 100%)

89% (≥ 90%)

2.4525-fold (≥ 2-fold)

0.006 ppm: LoD

< 0.064 ppm: V Low

0.064 to < 1 ppm: Low

≥ 1 and < 10 ppm: Moderate

≥ 10 ppm: High

Eq Unit

ppm

ppm

ppm

ppm

ppm

ppm

ppm

ppm

CFExtr Rprt 2-13-04 040209JT03 [Curve Fit]

CURVE FITTING WORKSHEET, DOSE-RESPONSE

DNA = Ctrl + ((Emax-Ctrl)*Conc)/(EC50+Conc)

Exp Date: 2-13-2004
 ID#: 040209JT03
 Sample: Control

Feed Extract (mg eq/ml)
 Axis Label: Axis Units:
 X-Axis: Concentration mg eq/ml < do not change
 Y-Axis: DNA ug/well

Reference Standard:
 Genistein (Gen)
 Ctrl 0.43798079 ± 0.011425
 AE 0.3910611 ± 0.008888
 E-11 1.07414666 ± 0.028712
 E-10 0.91098733 ± 0.005436
 blank 0.05727464 ± 0.002184
 Ctrl 0.52712998 ± 0.021499

PlateCtrl: 0.43798079 0.68753963 CmpdCtrl
 E2Max: 1.07414666 1.40820374 CmpdMax
 AE: 0.3910611

Concentration (mg eq/ml)	DNA (ug/well)	Frac Resp	Use for Hill fit? (y/n)	Use for Hill plot? (y/n)
7.1274E-05	0.68753963	n	0.25721803	n
0.00121732	0.8951709	y	0.4712217	y
0.00492552	1.24592408	y	0.83273983	y
0.01910582	1.40820374	y	1	n
0.07632329	1.22648039	n	0.81269939	n
0.2	1.05930933	n	0.64039769	n

Data pairs 6 Bold indicates
 Curve Fit pairs 3 0.05 < Y < 0.95

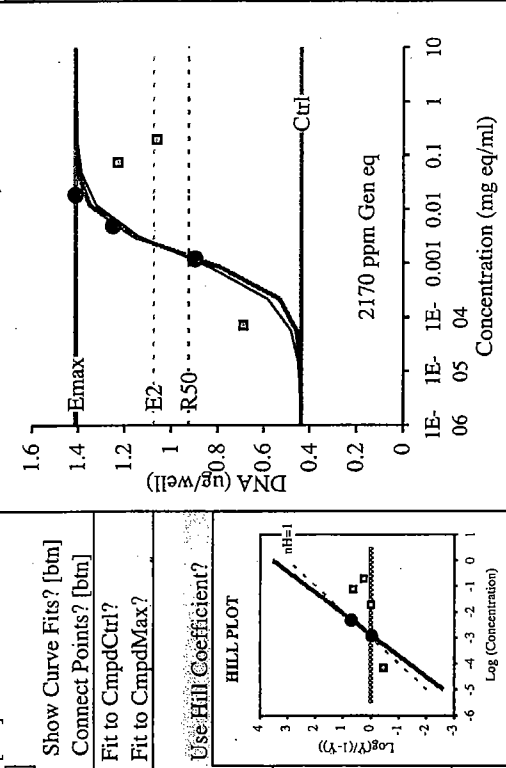
Std Cmpd Eq = Std Cmpd EC50 ÷ Smp1 EC50

Use as Std:	Std Cmpd	Abbr	MW	Std Cmpd EC50: g/ml	Std Cmpd EC50: M
<input type="radio"/>	Zearalenone	Z	318.4	6.37E-11	2.00E-10
<input checked="" type="radio"/>	Genistein	Gen	270.24	2.61E-09	9.65E-09
<input type="radio"/>	Bisphenol A	BPA	228.3	5.84E-08	2.56E-07
<input type="radio"/>	Zearalanol	RaGro	322.4	1.13E-12	3.50E-12
<input type="radio"/>	Estradiol	E2	272.4	3.84E-13	1.41E-12
<input type="radio"/>	Diethylstilbestrol	DES	268.4	6.98E-14	2.60E-13

Enter data ONLY in the shaded cells. To change the # of points, insert or delete complete rows from the middle of the data range. Use "Paste Values", not "Paste", to enter data from other wks. Concentrations: ASCENDING ORDER, use SORT button

Curve Fit EC50: 0.00120365 mg eq/ml ± 0.0002071 R=98.149%
 CF EC50 with nH: 0.00132025 mg eq/ml ± 9.57E-05 R=99.550% (NA, df<1)
 nH = 1.23081886 (NA, df<1)
 Line Est EC50: 0.0013606 mg eq/ml
 EC50: 1.2 µg eq/ml
 Std Eq: 2170 ppm Gen eq

Specifications:
 (Bold-face if outside)
 Confluent above: 2.5 ug/well
 %Confluent: 43% (≤ 100%)
 AE/Ctrl: 89% (≥ 90%)
 Emax/Ctrl: 2.4525-fold (≥ 2-fold)



(-6) (1) (1E-06) (1E+01)

Std Compound	Str. Line	Curve Fit	Hill Fit	Eq Unit	LoD = "Limit of Detection"
Zearalenone	46.803095	52.9055443	48.2331463	ppm	0.006 ppm: LoD
Genistein	1916.6749	2166.58173	1975.23823	ppm	< 0.064 ppm: V Low
Bisphenol A	42.955363	48.5861237	44.2678484	ppb	0.064 to < 1 ppm: Low
Zearalanol	0.8293438	0.95747827	0.85468408	ppm	≥ 1 and < 10 ppm: Moderate
Estradiol	0.2822915	0.5190982	0.29091677	ppm	≥ 10 ppm: High
Diethylstilbestrol	51.289371	57.9767667	52.8564994	ppb	

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 1379-04
 ANALYSIS Mycotoxin Screen
 CHEMIST Dr George Rottinghaus

	SAMPLE	Amt	mls used	ul spotted	aflatoxin	vomitoxin	zearalenone	ochratoxin
C18	Feed-1	50.0g	5 / 100	10 / 100	N/D	—	N/D	N/D
SL		—	10/100	10/100	—	N/D	—	—
C18	Feed-2	50.0g	5 / 100	10 / 100	N/D	—	N/D	N/D
SL		—	10/100	10/100	—	N/D	—	—
C18	Spt-Corn	50.0g	0.5 / 100	10 / 100	.45	—	.24	.34
SL	Spt/C	—	2 / 100	10/100	—	.40	—	—
	Standards	—	—	10	.45	.40	.24	.34

COMMENTS: See _____ for TLC Standards and Spike

1. Spiked with 100 ul each: 25 ppm zearalenone, 2.5 ppm ochratoxin A, 0.5 ppm aflatoxin B₁
2. Spiked with 100 ul 25 ppm vomitoxin

EXAMINED BY Charles Costner
 DATE 1/29/04

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 1379-04
 ANALYSIS Ergot Screen
 CHEMIST Dr George Rottinghaus

SAMPLE	amt	vol used	Final Vol	ergosine	ergotamine	ergocornine	ergocryptine	ergocristine
#1	10g	10/100	2ml	-	-	-	-	-
#2	10g	10/100	2ml	-	-	-	-	-
ergot	0.5g	1/100	10ml	+	+	+	+	+

COMMENTS: See _____ for Standards, Spike and Graph.

<u>Alkaloid</u>	<u>Conc</u>	<u>RT</u>	<u>Pk Ht</u>	<u>RsF</u>	<u>Sample RT</u>	<u>Pk Ht</u>	<u>Conc</u>
Ergosine							
Ergotamine							
Ergocornine							
Ergocryptine							
Ergocristine							

ERGQUALINE

NONE DETECTED

M224 method

Ergosil method

EXAMINED BY George E. Rottinghaus

DATE 2/03/04

D-7000 HPLC System Manager Report

Analyzed: 02/02/04 12:53 PM

Reported: 04/18/05 10:25 AM

Processed: 04/18/05 10:23 AM

Data Path: C:\Win32App\HSM\samples\DATA\0846\

Processing Method: ergot screen

System(acquisition): Sys 2

Series:0846

Application: Samples

Vial Number: 1

Sample Name: 100 ppb ergot mix

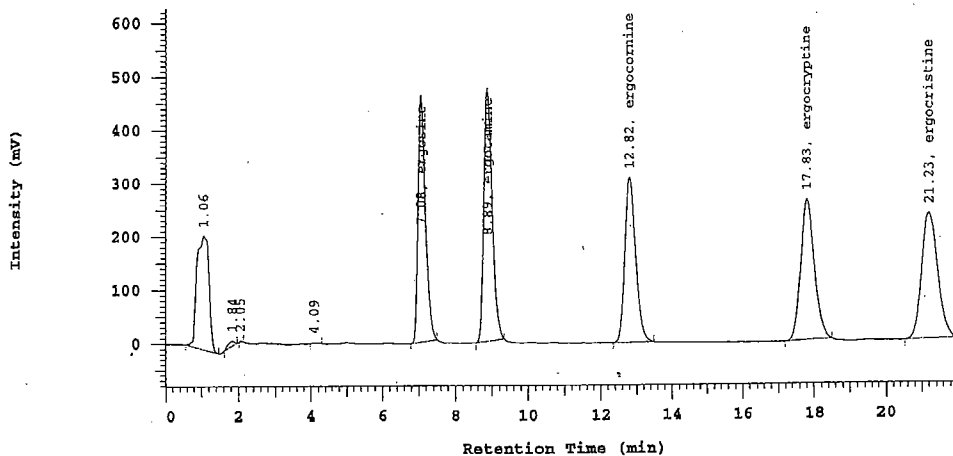
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergosine	7.08	6317754	100.000	200.000
ergotamine	8.89	7485490	100.000	200.000
ergocornine	12.82	6444302	100.000	200.000
ergocryptine	17.83	6985624	100.000	200.000
ergocristine	21.23	7310727	100.000	200.000
		34543897	500.000	1000.00

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 02/02/04 05:29 PM

Reported: 04/18/05 10:25 AM

Processed: 04/18/05 10:24 AM

Data Path: C:\Win32App\HSM\samples\DATA\0846\

Processing Method: ergot screen

System(acquisition): Sys 2

Series:0846

Application: Samples

Vial Number: 1

Sample Name: 100 ppb ergot mix

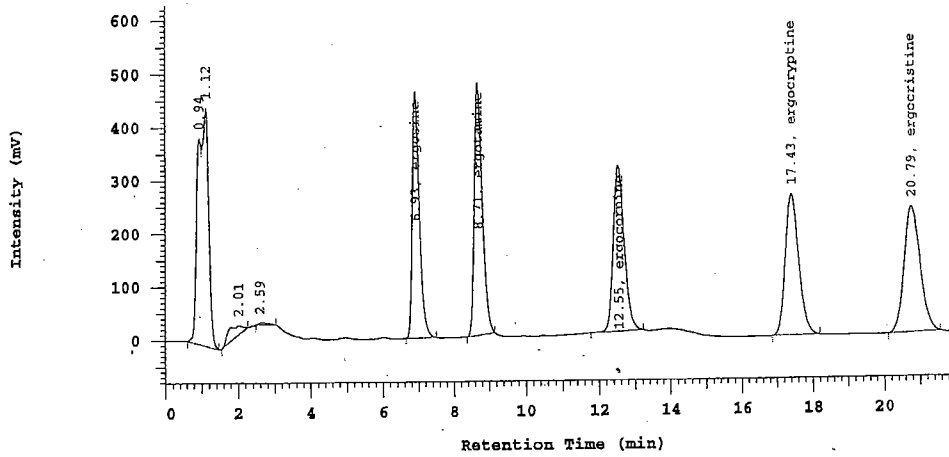
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

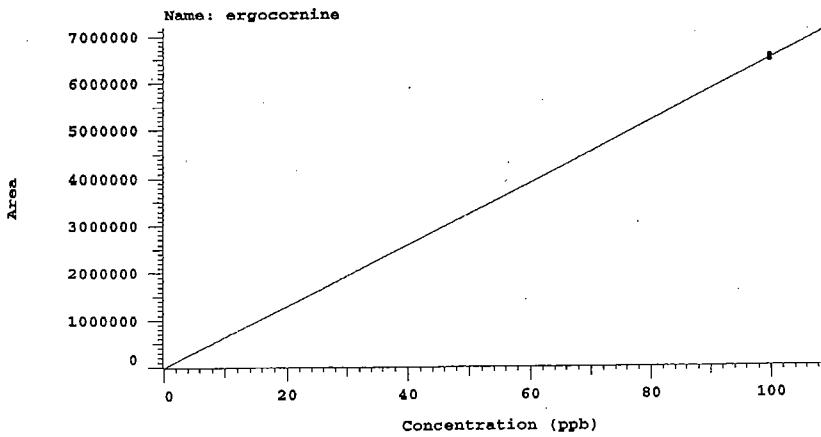
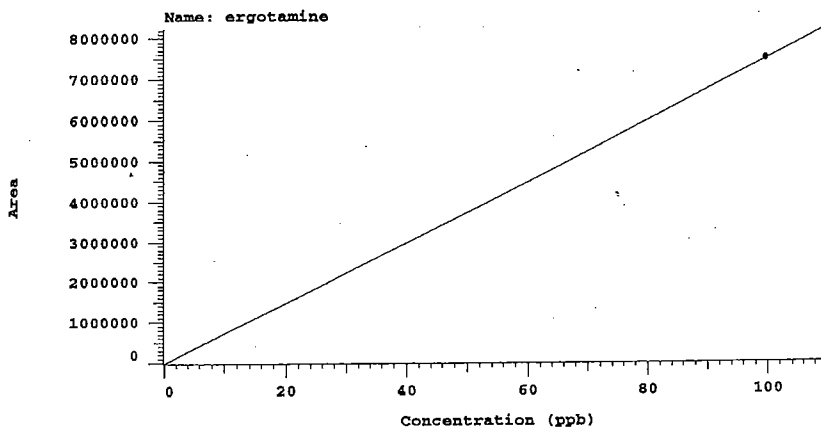
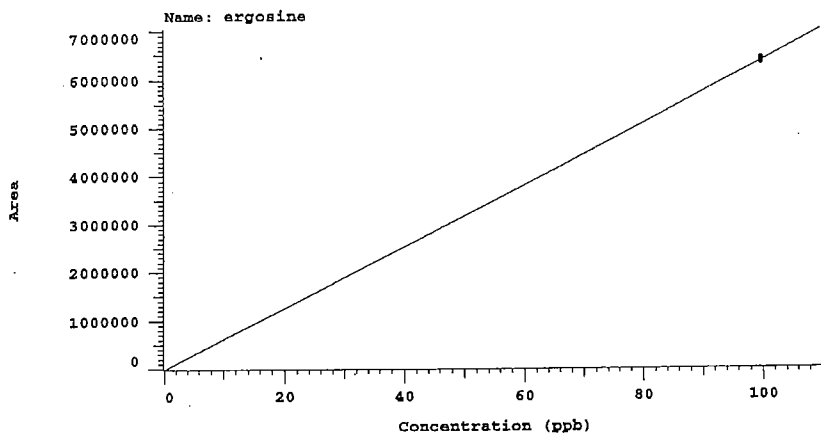
Chrom Type: HPLC Channel : 2

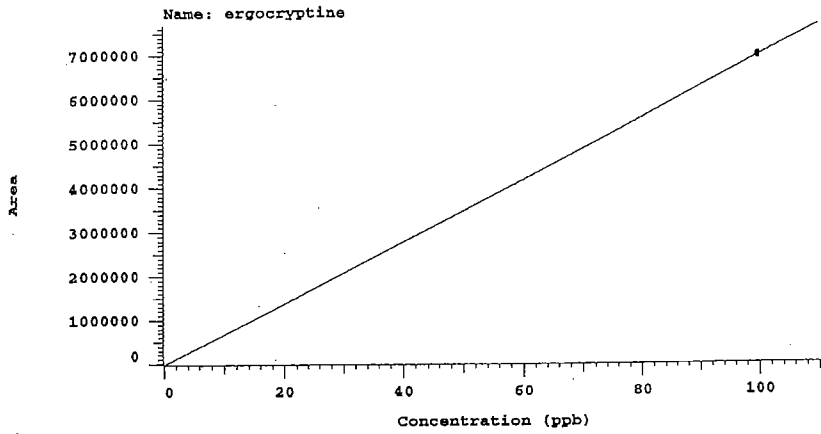


Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergosine	6.93	6401257	100.000	200.000
ergotamine	8.71	7446335	100.000	200.000
ergocornine	12.55	6534062	100.000	200.000
ergocryptine	17.43	6934678	100.000	200.000
ergocristine	20.79	7307495	100.000	200.000
		34623827	500.000	1000.00

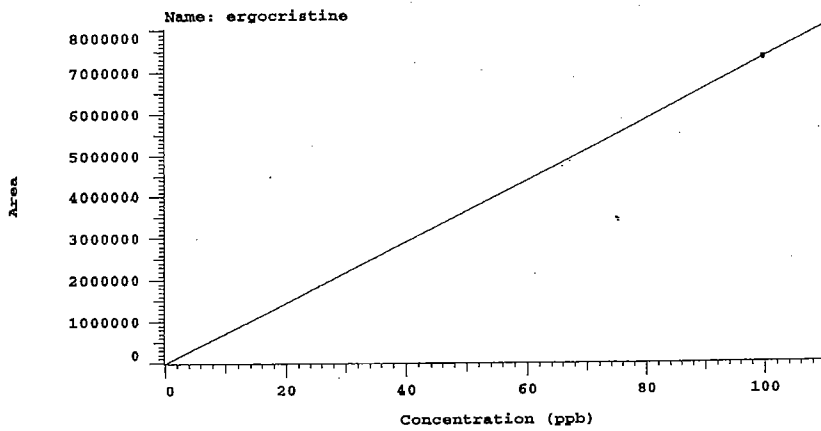
Peak rejection level: 10

Channel 2 Calibration Curves and Results





RT= 17.63 min
 2xSD = 7.205e+004
 A₀ = 0.000e+000
 A₁ = 1.437e-005
 A₂ = 0.000e+000
 A₃ = 0.000e+000



RT= 21.01 min
 2xSD = 4.571e+003
 A₀ = 0.000e+000
 A₁ = 1.368e-005
 A₂ = 0.000e+000
 A₃ = 0.000e+000

Name	Pts	A0	A1	A2	A3	2 x SD	Units
ergosine	2	0.000E+00	1.572E-05	0.000E+00	0.000E+00	1.181E+05	ppb
ergotamine	2	0.000E+00	1.339E-05	0.000E+00	0.000E+00	5.537E+04	ppb
ergocornine	2	0.000E+00	1.541E-05	0.000E+00	0.000E+00	1.269E+05	ppb
ergocryptine	2	0.000E+00	1.437E-05	0.000E+00	0.000E+00	7.205E+04	ppb
ergocristine	2	0.000E+00	1.368E-05	0.000E+00	0.000E+00	4.571E+03	ppb

Least Squares Analysis
 Order: Linear - f(Response)
 Through zero: YES
 Weight factor: 1.0

D-7000 HPLC System Manager Report

Analyzed: 02/02/04 03:57 PM

Reported: 04/18/05 10:25 AM

Processed: 04/18/05 10:24 AM

Data Path: C:\Win32App\HSM\samples\DATA\0846\

Processing Method: ergot screen

System(acquisition): Sys 2

Series:0846

Application: Samples

Vial Number: 9

Sample Name: 1379-04 #1

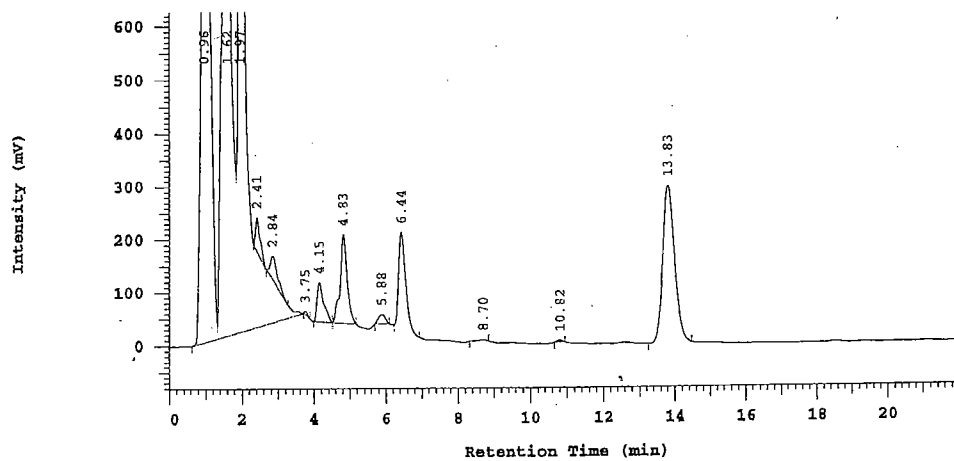
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
		0	0.000000	0.000000

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 02/02/04 04:20 PM

Reported: 04/18/05 10:25 AM
Processed: 04/18/05 10:24 AM

Data Path: C:\Win32App\HSM\samples\DATA\0846\

Processing Method: ergot screen

System(acquisition): Sys 2

Series:0846

Application: Samples

Vial Number: 10

Sample Name: 1379-04 #2

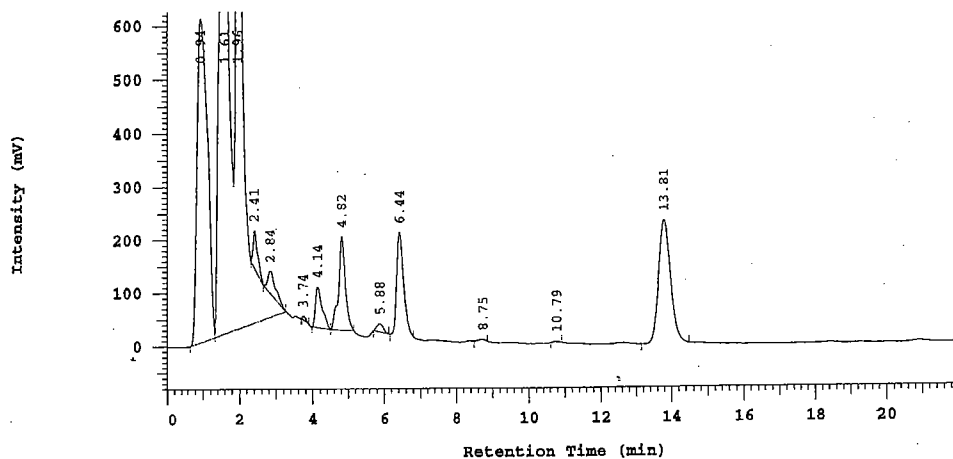
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
		0	0.000000	0.000000

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 02/02/04 05:06 PM

Reported: 04/18/05 10:25 AM

Processed: 04/18/05 10:24 AM

Data Path: C:\Win32App\HSM\samples\DATA\0846\

Processing Method: ergot screen

System(acquisition): Sys 2

Series:0846

Application: Samples

Vial Number: 12

Sample Name: ergot

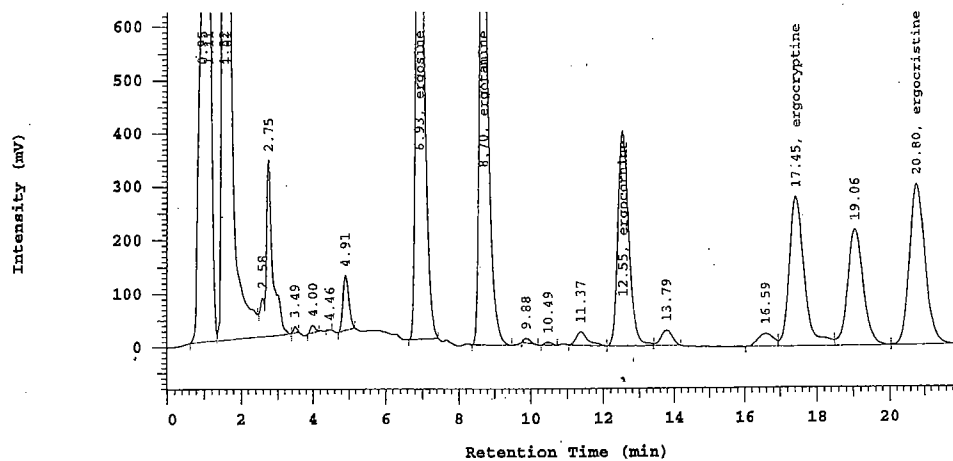
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergosine	6.93	18466561	290.365	580.730
ergotamine	8.70	15128985	202.639	405.279
ergocornine	12.55	8466096	130.459	260.917
ergocryptine	17.45	7986276	114.741	229.483
ergocristine	20.80	9416032	128.826	257.652
		59463950	867.030	1734.06

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 02/09/04 11:14 AM

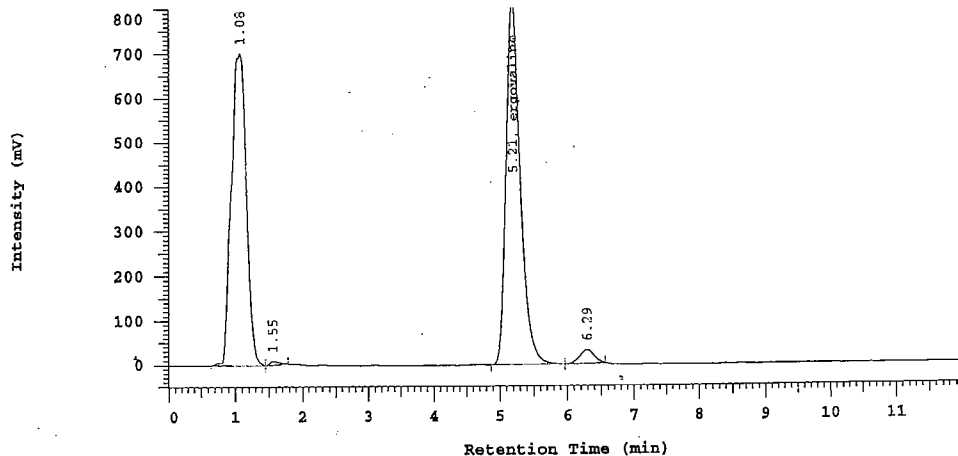
Reported: 02/09/04 01:48 PM
Processed: 02/09/04 01:28 PM

Data Path: C:\Win32App\HSM\samples\DATA\0856\
Processing Method: Ergovaline

System(acquisition): Sys 2
Application: Samples
Sample Name: 100 ppb ergovaline
Injection from this vial: 1 of 1
Sample Description:

Series:0856
Vial Number: 1
Vial Type: STD1
Volume: 20.0 ul

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergovaline	5.21	11934204	100.000	200.000
		11934204	100.000	200.000

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 02/09/04 12:45 PM

Reported: 02/09/04 01:48 PM

Processed: 02/09/04 01:28 PM

Data Path: C:\Win32App\HSM\samples\DATA\0856\

Processing Method: Ergovaline

System(acquisition): Sys 2

Series:0856

Application: Samples

Vial Number: 1

Sample Name: 100 ppb ergovaline

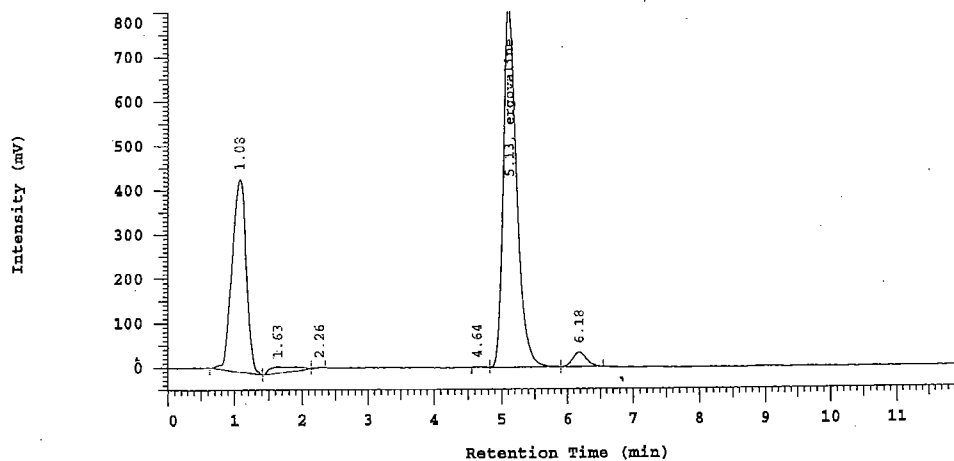
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

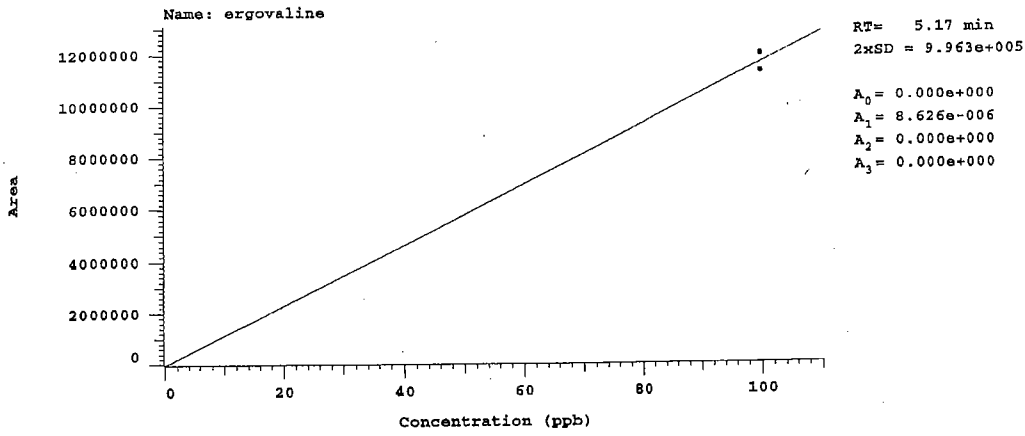
Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergovaline	5.13	11229706	100.000	200.000
		11229706	100.000	200.000

Peak rejection level: 10

Channel 2 Calibration Curves and Results



Chrom Type: HPLC Channel : 2

Name	Pts	A0	A1	A2	A3	2 x SD	Units
ergovaline	2	0.000E+00	8.626E-06	0.000E+00	0.000E+00	9.963E+05	ppb

Least Squares Analysis
 Order: Linear - f(Response)
 Through zero: YES
 Weight factor: 1.0

D-7000 HPLC System Manager Report

Analyzed: 02/09/04 11:27 AM

Reported: 02/09/04 01:48 PM

Processed: 02/09/04 01:28 PM

Data Path: C:\Win32App\HSM\samples\DATA\0856\

Processing Method: Ergovaline

System(acquisition): Sys 2

Series:0856

Application: Samples

Vial Number: 2

Sample Name: 1379-04 #1

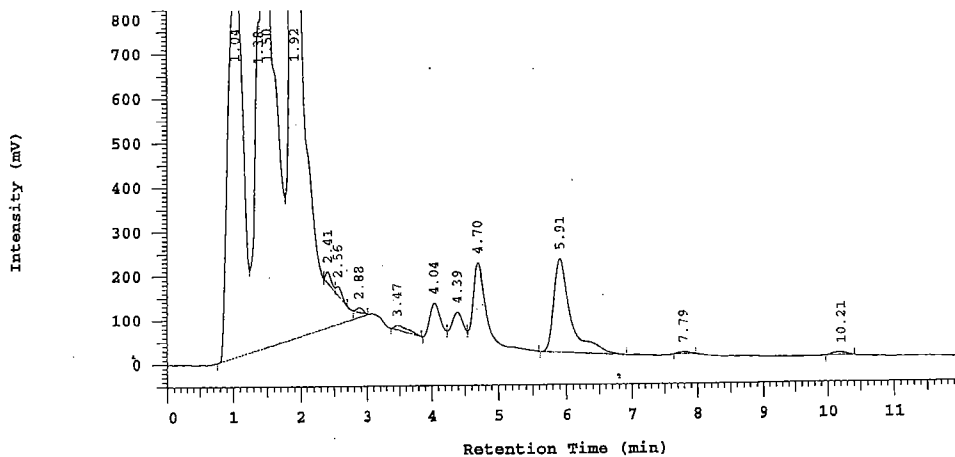
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
		0	0.000000	0.000000

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 02/09/04 11:40 AM

Reported: 02/09/04 01:48 PM

Processed: 02/09/04 01:28 PM

Data Path: C:\Win32App\HSM\samples\DATA\0856\

Processing Method: Ergovaline

System(acquisition): Sys 2

Series:0856

Application: Samples

Vial Number: 3

Sample Name: 1379-04 #2

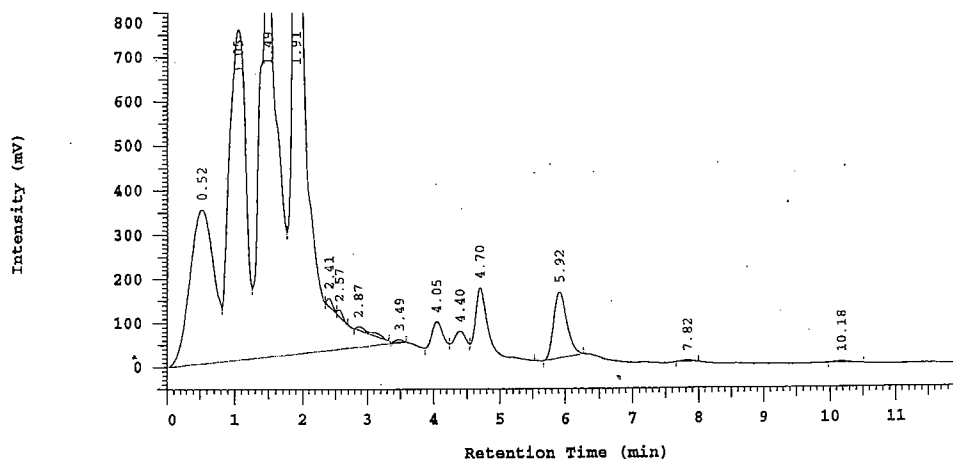
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
		0	0.000000	0.000000

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 02/09/04 12:32 PM

Reported: 02/09/04 01:48 PM

Processed: 02/09/04 01:28 PM

Data Path: C:\Win32App\HSM\samples\DATA\0856\

Processing Method: Ergovaline

System(acquisition): Sys 2

Series:0856

Application: Samples

Vial Number: 7

Sample Name: blank

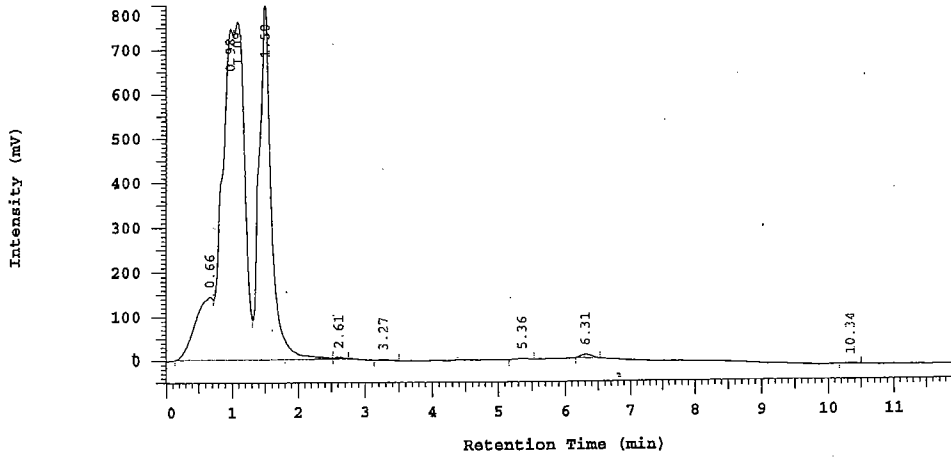
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
		0	0.000000	0.000000

Peak rejection level: 10

1379-04

D-7000 HSM: Estrogens

Series: 0940

Report: modified

System: Sys 2

D-7000 HPLC System Manager Report

Analyzed: 02/20/04 06:34 PM

Reported: 02/21/04 11:26 AM

Processed: 02/21/04 11:25 AM

Data Path: F:\HSM\Estrogens\DATA\0940\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0940

Application: Estrogens

Vial Number: 1

Sample Name: Gen100/Dad100/Gly20

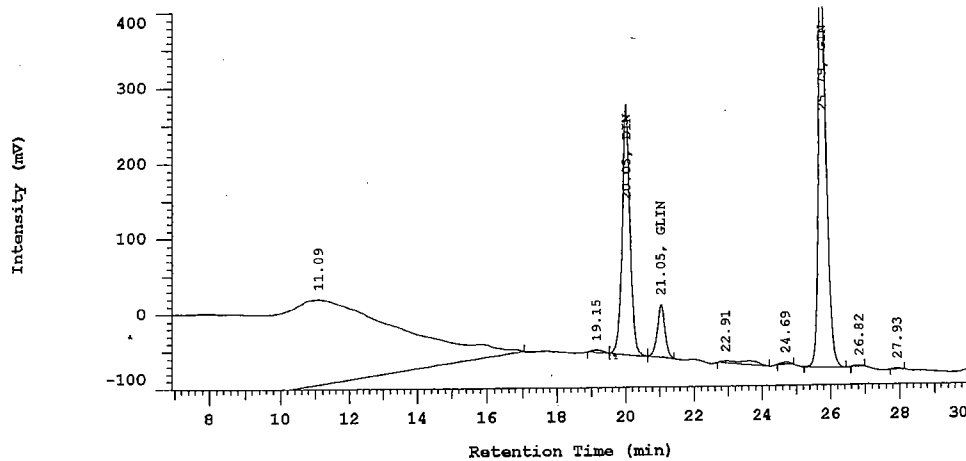
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area'	Name	Conc 1 ppm	Conc 2 ppm
5	20.05	5333765	DIN	100.000	2000.00
6	21.05	1062182	GLIN	20.0000	400.000
9	25.79	8904889	GIN	100.000	2000.00
		15300836		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/20/04 07:15 PM

Reported: 02/21/04 11:18 AM

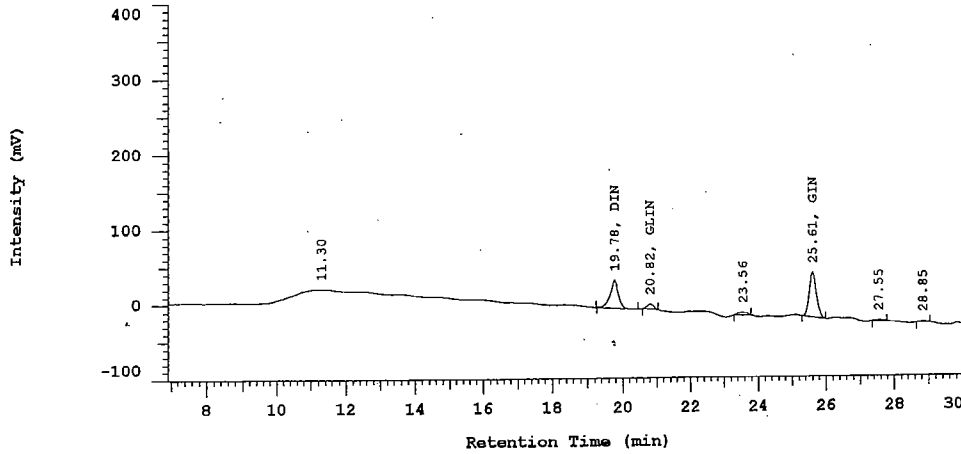
Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\
 Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
 Application: Estrogens
 Sample Name: Gen10/Dad10/Gly2
 Injection from this vial: 1 of 1
 Sample Description:

Series:0940
 Vial Number: 2
 Vial Type: STD2
 Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
4	19.78	608263	DIN	10.0000	200.000
5	20.82	89306	GLIN	2.00000	40.0000
7	25.61	875433	GIN	10.0000	200.000
		1573002		22.0000	440.000

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/21/04 04:07 AM

Reported: 02/21/04 11:18 AM

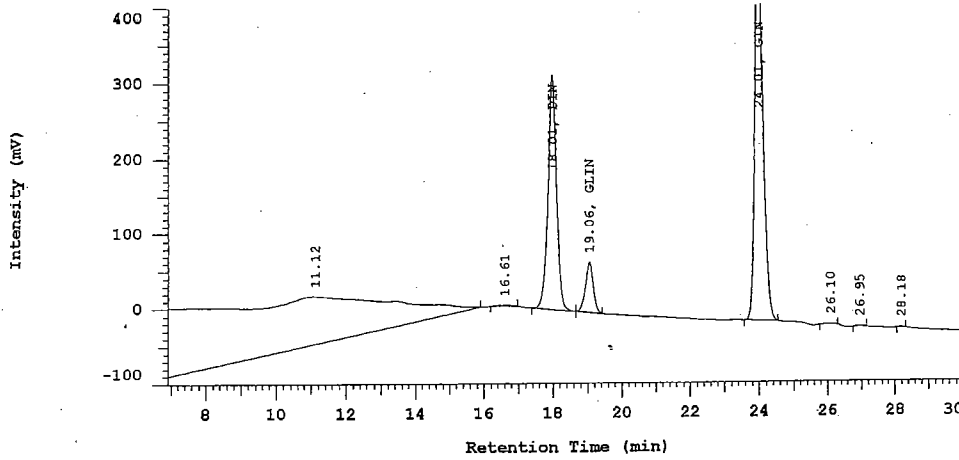
Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
Application: Estrogens
Sample Name: Gen100/Dad100/Gly20
Injection from this vial: 1 of 1
Sample Description:

Series: 0940
Vial Number: 1
Vial Type: STD1
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
5	18.01	5248365	DIN	100.000	2000.00
6	19.06	1033294	GLIN	20.0000	400.000
7	24.01	8654667	GIN	100.000	2000.00
		14936326		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/21/04 04:48 AM

Reported: 02/21/04 11:18 AM

Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0940

Application: Estrogens

Vial Number: 2

Sample Name: Gen10/Dad10/Gly2

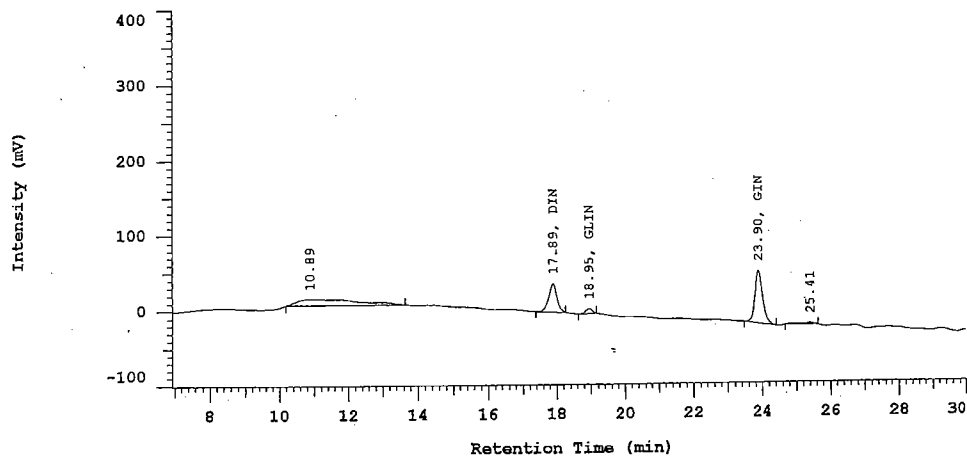
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

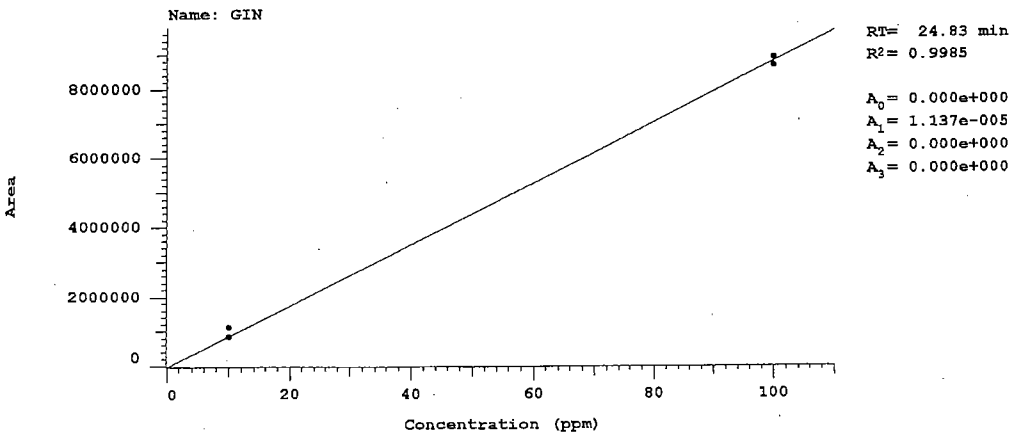
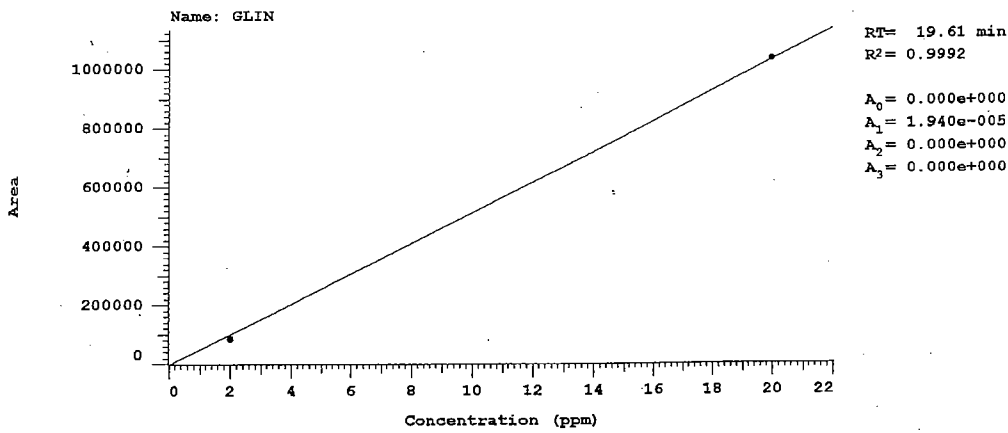
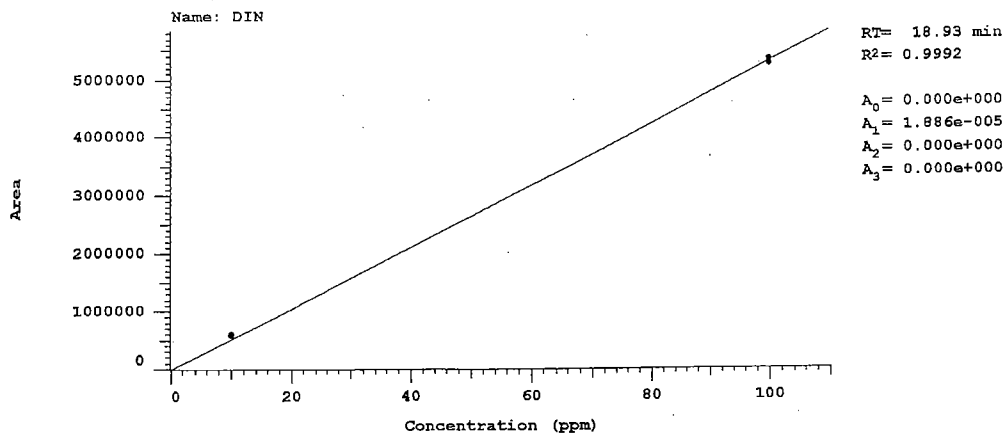
Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
6	17.89	618605	DIN	10.0000	200.000
7	18.95	87047	GLIN	2.00000	40.0000
8	23.90	1125459	GIN	10.0000	200.000
				22.0000	440.000

Peak rejection level: 0

Channel 1 Calibration Curves and Results



D-7000 HPLC System Manager Report

Analyzed: 02/20/04 07:56 PM

Reported: 02/21/04 11:18 AM

Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0940

Application: Estrogens

Vial Number: 3

Sample Name: Control 1

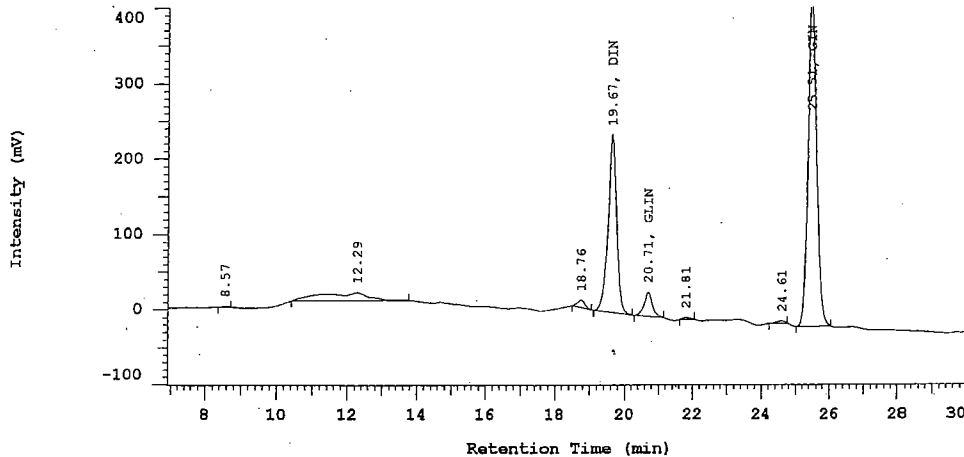
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	19.67	3951383	DIN	74.5393	$1490.79 \times 0.611 = 910$
9	20.71	536016	GLIN	10.4005	$208.009 \times 0.637 = 130$
12	25.51	7433306	GIN	84.4972	$1689.94 \times 0.625 = 1055$
		11920705		169.437	3388.74

Peak rejection level: 0

Daidzein	895 pp-
Glycitein	135 pp-
Genistein	1025 pp-

D-7000 HPLC System Manager Report

Analyzed: 02/20/04 08:37 PM

Reported: 02/21/04 11:18 AM

Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\

Processing Method: Soy phytoestrogens-YC.

System(acquisition): Sys 2

Series:0940

Application: Estrogens

Vial Number: 4

Sample Name: Control 2

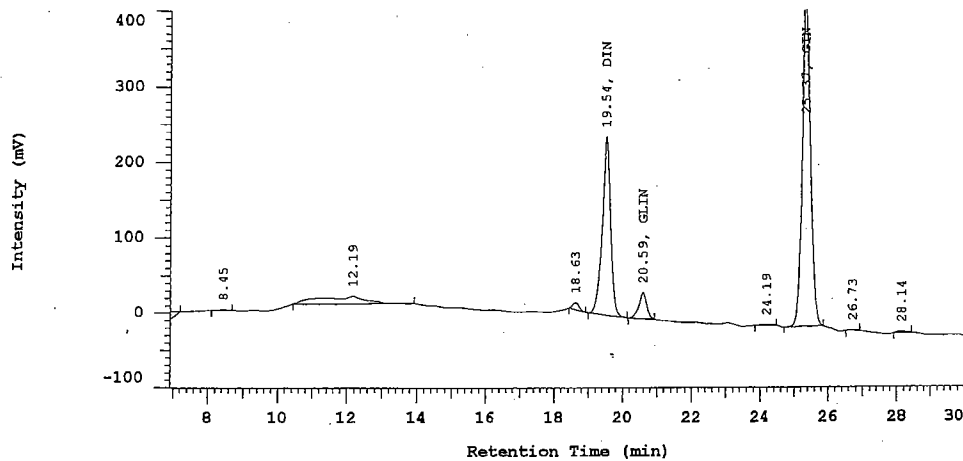
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
7	19.54	3979042	DIN	75.0610	$1501.22 \times 0.611 = 915 \mu\text{M}$
8	20.59	539222	GLIN	10.4627	$209.253 \times 0.637 = 135 \mu\text{M}$
10	25.37	7253460	GIN	82.4529	$1649.06 \times 0.625 = 1030 \mu\text{M}$
		11771724		167.977	3359.53

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/20/04 09:18 PM

Reported: 02/21/04 11:18 AM

Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0940

Application: Estrogens

Vial Number: 5

Sample Name: Control 3

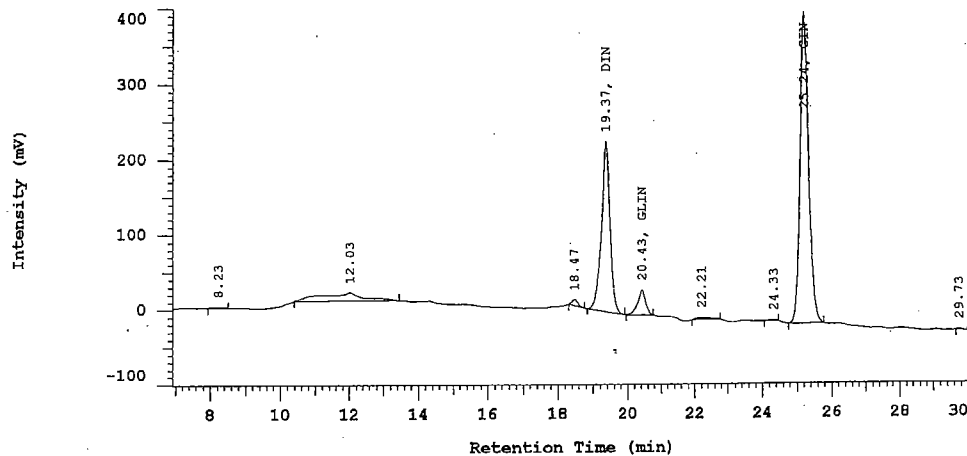
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
7	19.37	3763978	DIN	71.0041	1420.08 X 0.611 = 865
8	20.43	538722	GLIN	10.4530	209.060 X 0.627 = 135
11	25.24	6954887	GIN	79.0589	1581.18 X 0.625 = 988
		11257587		160.516	3210.32

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/20/04 09:59 PM

Reported: 02/21/04 11:18 AM

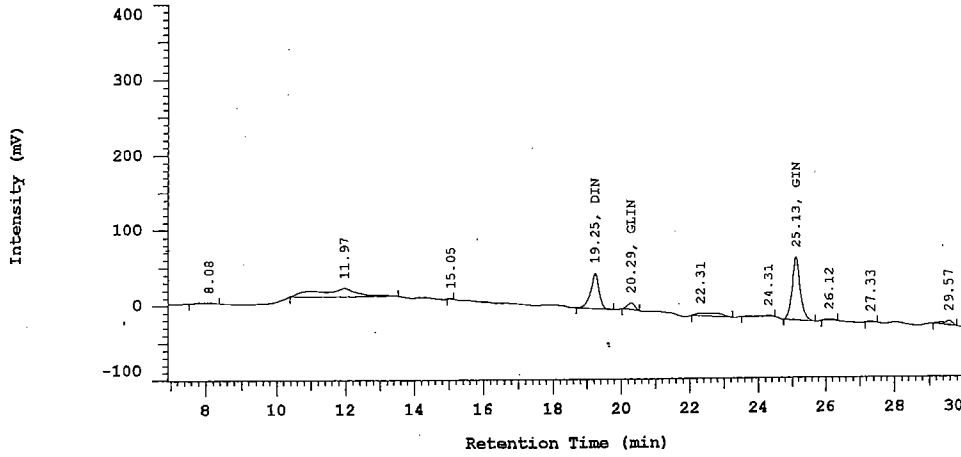
Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
Application: Estrogens
Sample Name: Sample 1-1
Injection from this vial: 1 of 1
Sample Description:

Series:0940
Vial Number: 6
Vial Type: UNK
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
7	19.25	802536	DIN	15.1391	302.783	
8	20.29	131164	GLIN	2.54502	50.9005	
11	25.13	1427060	GIN	16.2219	324.439	
				33.9061	678.122	

Agly cone
184.88
31.14
198.05

Peak rejection level: 0

DAIDZEIN 155 μM
 GLYCITEIN 23 μM
 GENISTEIN 170 μM

D-7000 HPLC System Manager Report

Analyzed: 02/20/04 10:40 PM

Reported: 02/21/04 11:18 AM

Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0940

Application: Estrogens

Vial Number: 7

Sample Name: Sample 1-2

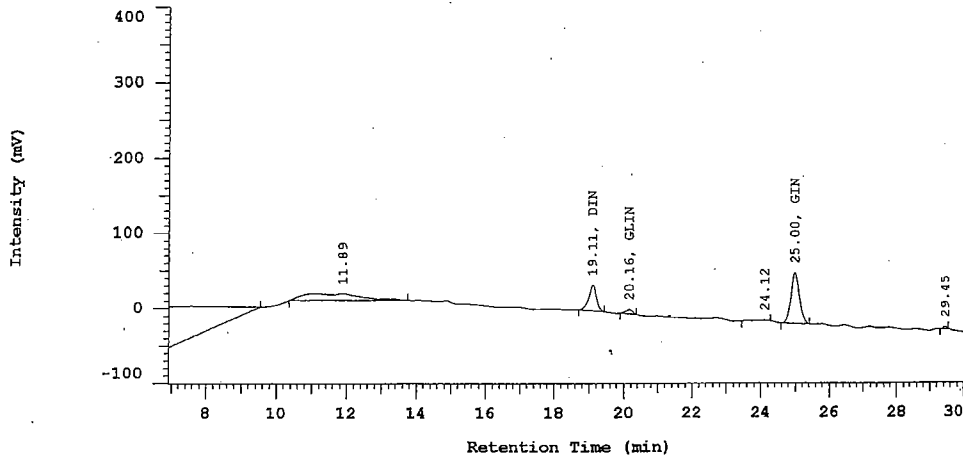
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
6	19.11	535706	DIN	10.1056	202.112
7	20.16	76879	GLIN	1.49172	29.8343
9	25.00	1110235	GIN	12.6205	252.409
		1722820		24.2178	484.356

Handwritten notes on the right side of the table:
 123.46
 18.19
 154.11

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/20/04 11:21 PM

Reported: 02/21/04 11:18 AM

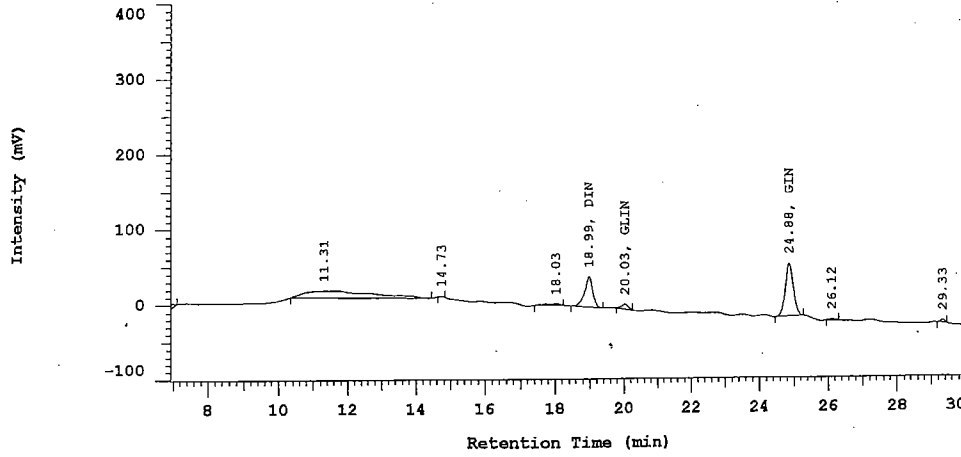
Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
Application: Estrogens
Sample Name: Sample 1-3
Injection from this vial: 1 of 1
Sample Description:

Series:0940
Vial Number: 8
Vial Type: UNK
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
7	18.99	664364	DIN	12.5326	250.653	18.00
8	20.03	82746	GLIN	1.60555	32.1110	19.66
9	24.88	1134722	GIN	12.8988	257.976	157.53
				27.0370	540.740	

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/21/04 12:02 AM

Reported: 02/21/04 11:18 AM

Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0940

Application: Estrogens

Vial Number: 9

Sample Name: Sample 2-1

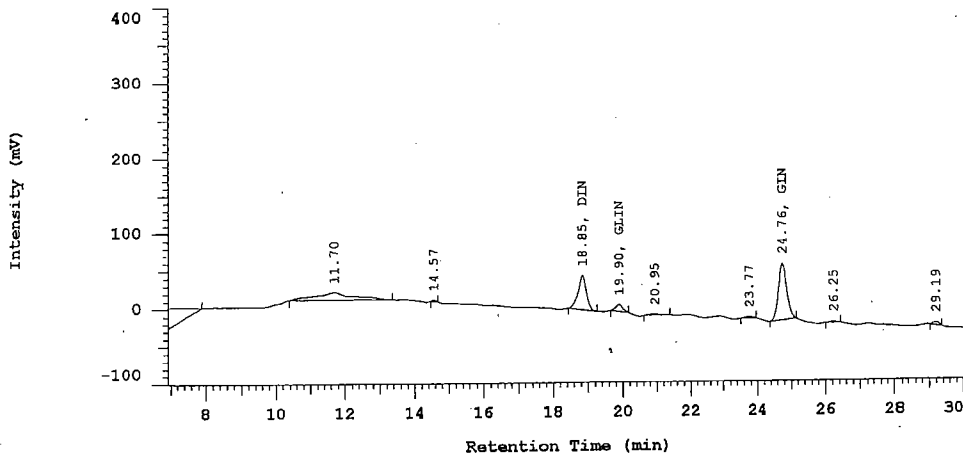
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	<i>Aglycon</i>
7	18.85	738309	DIN	13.9275	278.551	169.98
8	19.90	136330	GLIN	2.64525	52.9049	32.36
11	24.76	1242156	GIN	14.1201	282.401	172.4
				30.6928	613.857	

Peak rejection level: 0

DAIDZEIN - 155 ppb
 GLYCITEIN - 23 ppb
 GENISTEIN - 165 ppb

D-7000 HPLC System Manager Report

Analyzed: 02/21/04 12:43 AM

Reported: 02/21/04 11:18 AM

Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Application: Estrogens

Sample Name: Sample 2-2

Injection from this vial: 1 of 1

Sample Description:

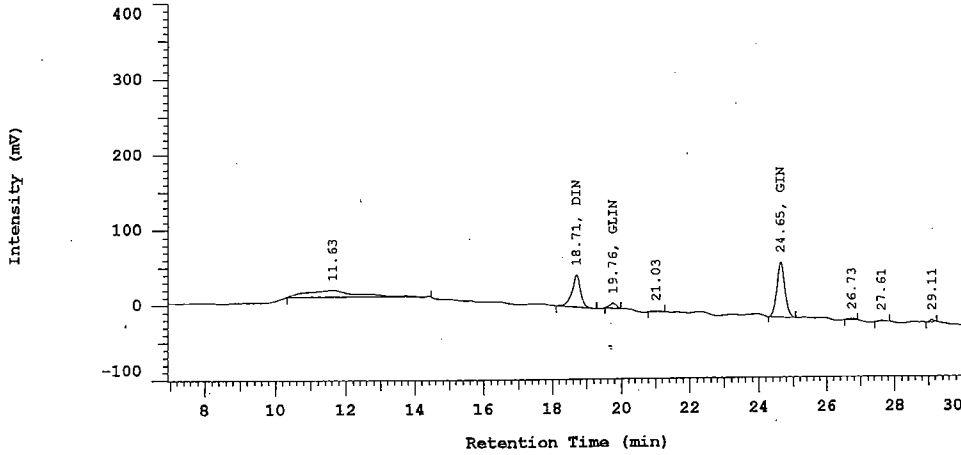
Series:0940

Vial Number: 10

Vial Type: UNK

Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
6	18.71	747794	DIN	14.1065	282.129	172.30
7	19.76	83342	GLIN	1.61712	32.3424	19.71
9	24.65	1187025	GIN	13.4934	269.867	164.7
		2018161		29.2170	584.339	

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/21/04 01:24 AM

Reported: 02/21/04 11:18 AM

Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0940

Application: Estrogens

Vial Number: 11

Sample Name: Sample 2-3

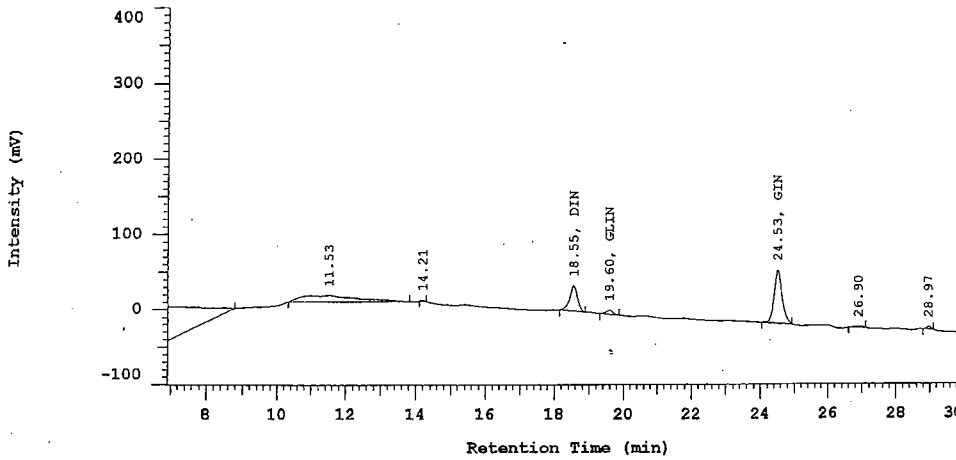
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
7	18.55	519976	DIN	9.80889	196.178	119.79
8	19.60	73214	GLIN	1.42060	28.4120	17.34
9	24.53	1150561	GIN	13.0789	261.578	159.72
		1743751		24.3084	486.167	

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/21/04 02:05 AM

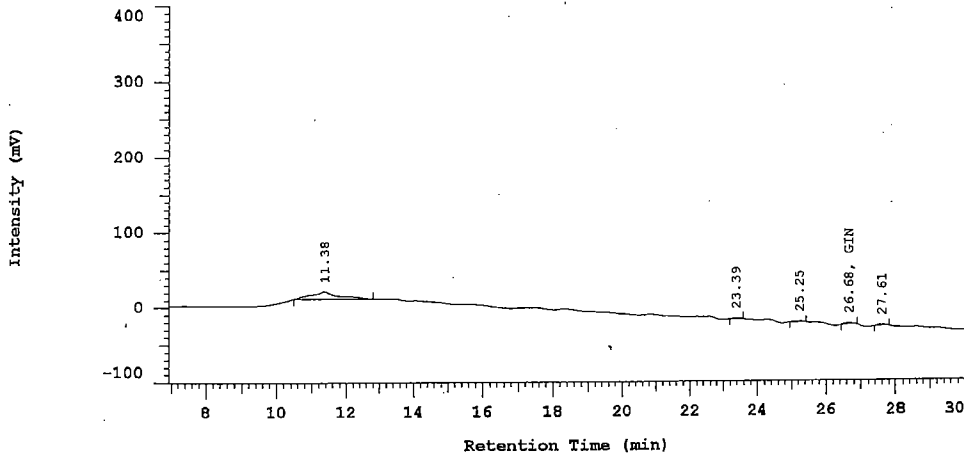
Reported: 02/21/04 11:18 AM
Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
Application: Estrogens
Sample Name: Sample 3-1
Injection from this vial: 1 of 1
Sample Description:

Series:0940
Vial Number: 12
Vial Type: UNK
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
12	26.68	43706	GIN	0.496823	9.93646
		43706		0.496823	9.93646

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/21/04 02:45 AM

Reported: 02/21/04 11:18 AM

Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0940

Application: Estrogens

Vial Number: 13

Sample Name: Sample3-2

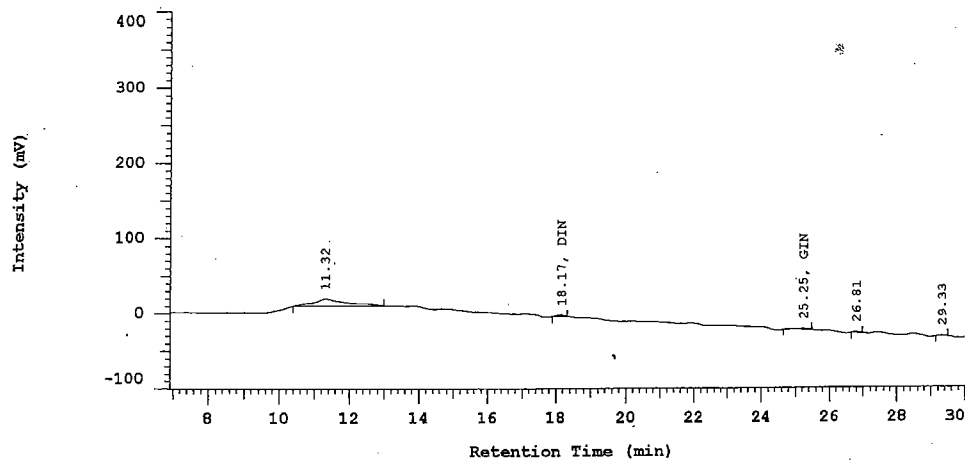
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
10	18.17	23312	DIN	0.439764	8.79527
11	25.25	54310	GIN	0.617365	12.3473
		77622		1.05713	21.1426

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 02/21/04 03:26 AM

Reported: 02/21/04 11:18 AM

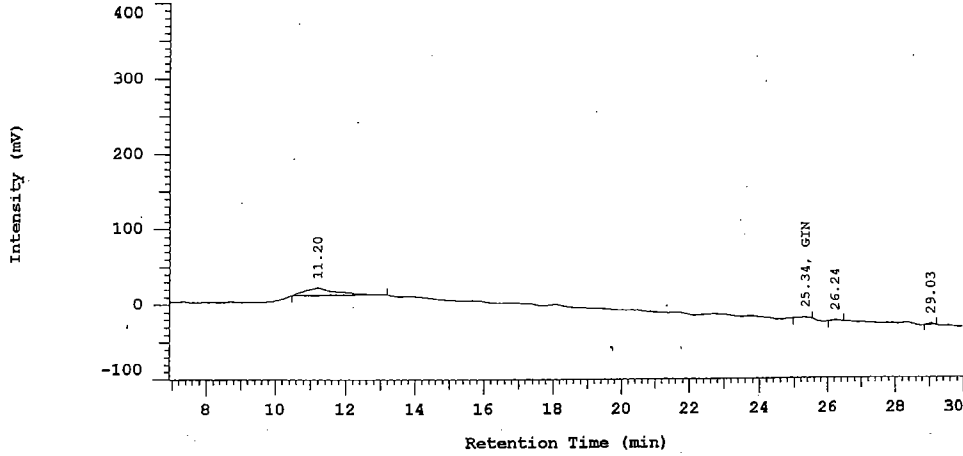
Processed: 02/21/04 11:14 AM

Data Path: F:\HSM\Estrogens\DATA\0940\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
Application: Estrogens
Sample Name: Sample3-3
Injection from this vial: 1 of 1
Sample Description:

Series:0940
Vial Number: 14
Vial Type: UNK
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
11	25.34	35361	GIN	0.401969	8.03938
		35361		0.401969	8.03938

Peak rejection level: 0

13079-04

D-7000 HSM: Soy isoflavone

Series: 0004

Report: modified

System: Sys 2

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 08:27 PM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 1

Sample Name: Gen100/Dad100/Gly20

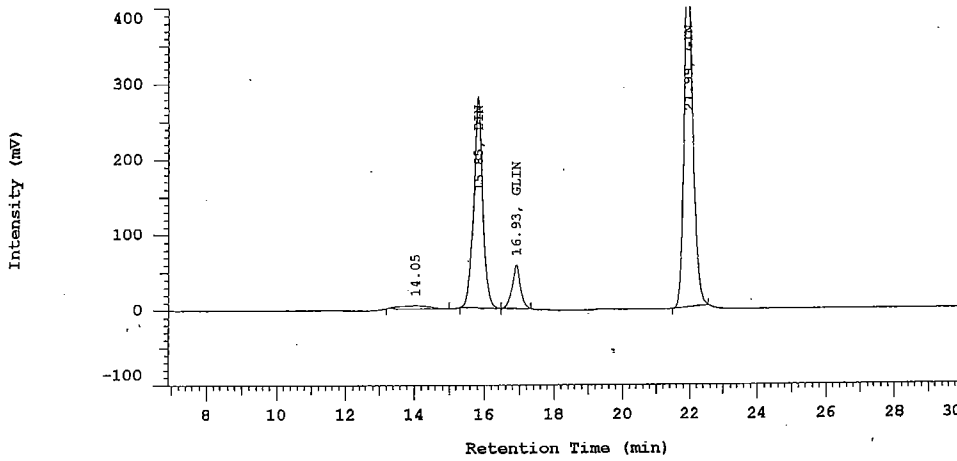
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
3	15.85	4908133	DIN	100.000	2000.00
4	16.93	949733	GLIN	20.0000	400.000
5	21.99	8399128	GIN	100.000	2000.00
		14256994		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 09:03 PM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 2

Sample Name: Gen10/Dad10/Gly2

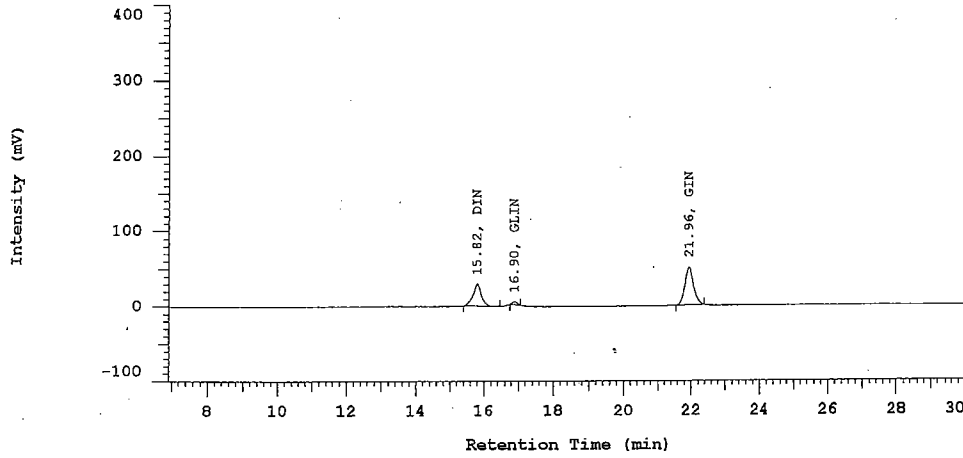
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	15.82	502652	DIN	10.0000	200.000
2	16.90	37878	GLIN	2.00000	40.0000
3	21.96	881335	GIN	10.0000	200.000
		1421865		22.0000	440.000

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 01:10 PM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 1

Sample Name: Gen100/Dad100/Gly20

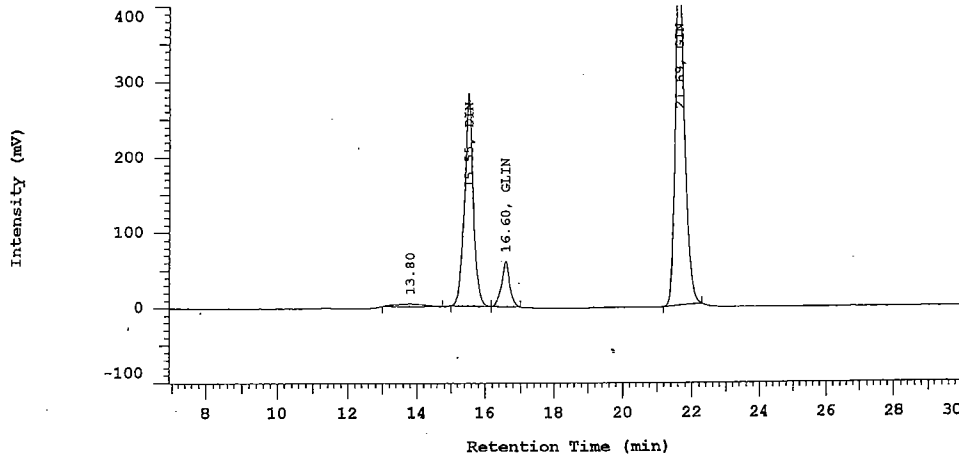
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
3	15.55	4961020	DIN	100.000	2000.00
4	16.60	968508	GLIN	20.0000	400.000
5	21.69	8422651	GIN	100.000	2000.00
		14352179		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 01:46 PM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 2

Sample Name: Gen10/Dad10/Gly2

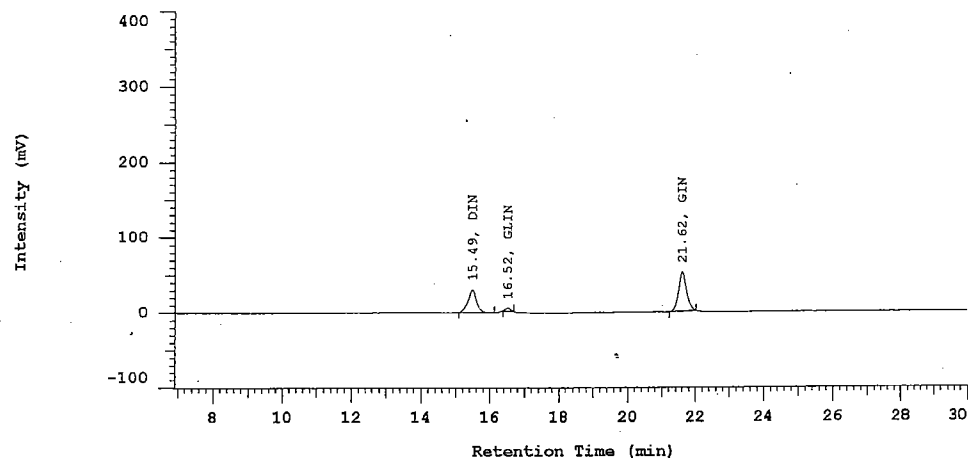
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

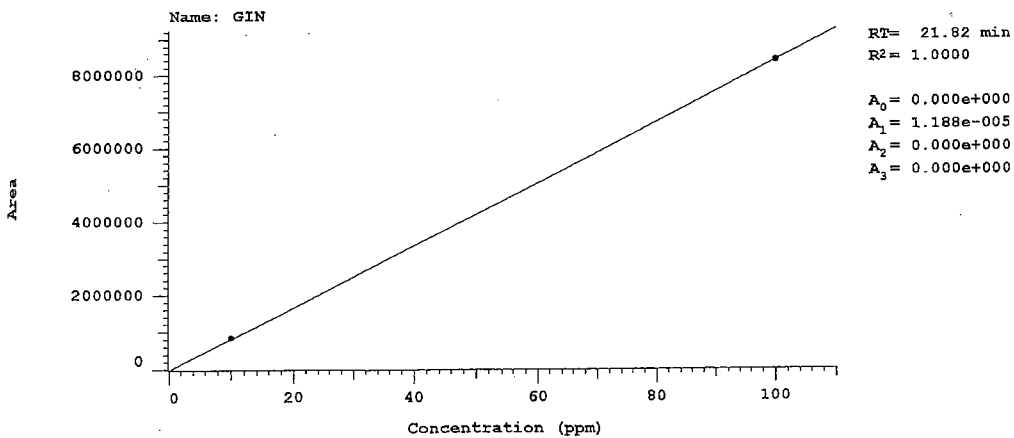
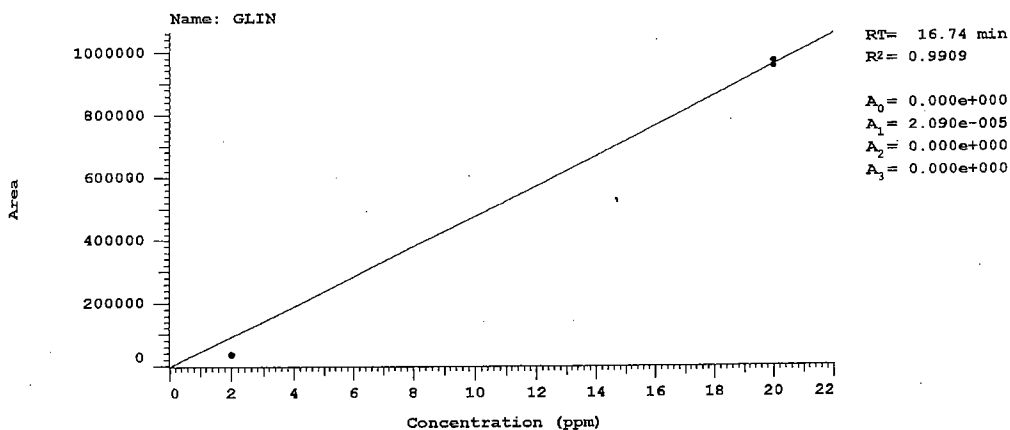
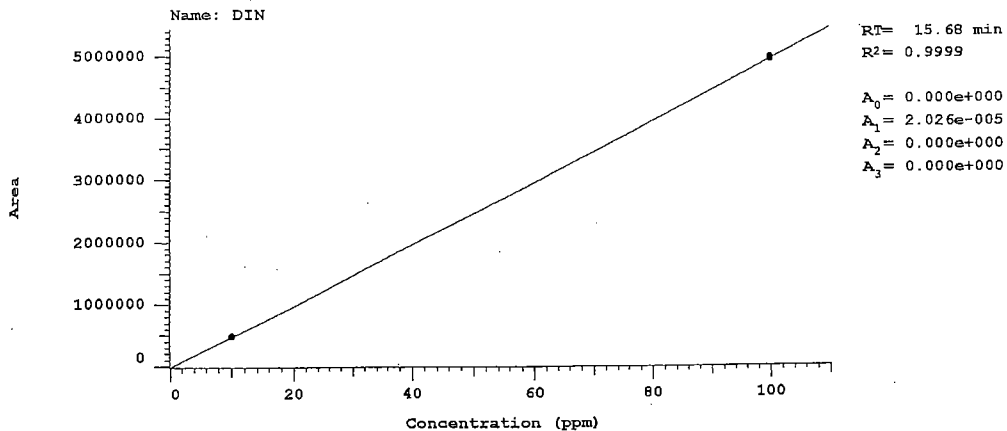
Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	15.49	512631	DIN	10.0000	200.000
2	16.52	38933	GLIN	2.00000	40.0000
3	21.62	868885	GIN	10.0000	200.000
		1420449		22.0000	440.000

Peak rejection level: 0

Channel 1 Calibration Curves and Results



D-7000 HPLC System Manager Report

Analyzed: 04/07/04 07:51 PM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 13

Sample Name: Control 3

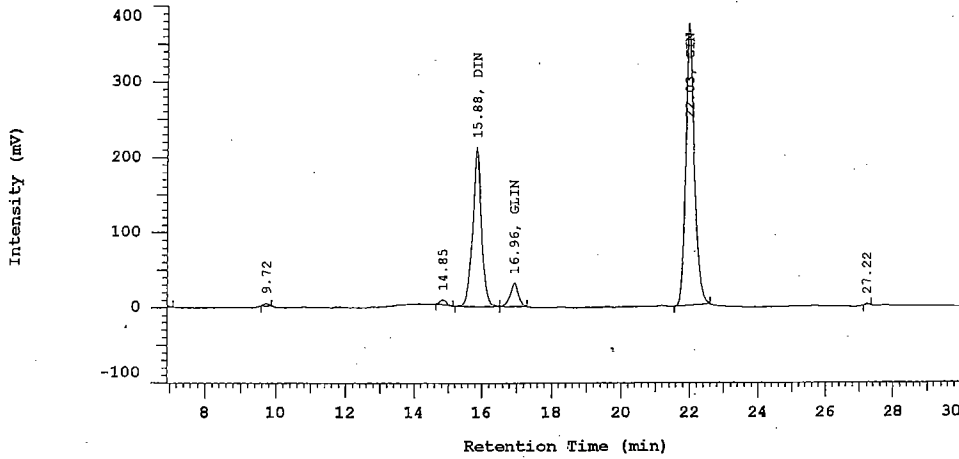
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
9	15.88	3727992	DIN	75.5240	1510.48	<i>Aglycon</i> 922.2 137.6 760.0
10	16.96	498453	GLIN	10.4179	208.358	
11	22.03	6460742	GIN	76.7819	1535.64	
		10687187		162.724	3254.48	

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 09:39 PM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 14

Sample Name: Control 4

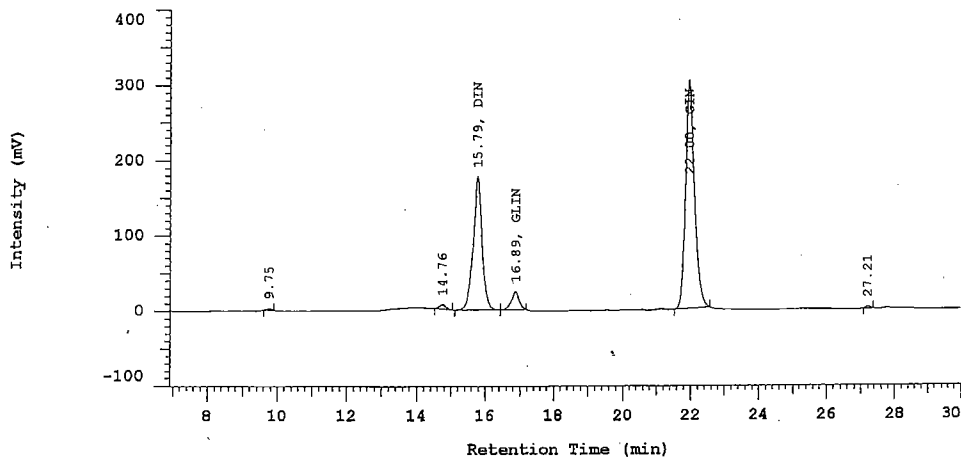
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
8	15.79	3148820	DIN	63.7908	1275.82	Aglycon 778.9 100.13 794.0
9	16.89	376161	GLIN	7.86192	157.238	
10	22.00	5344083	GIN	63.5111	1270.22	
		8869064		135.164	2703.28	

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 10:15 PM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 15

Sample Name: 1379-1

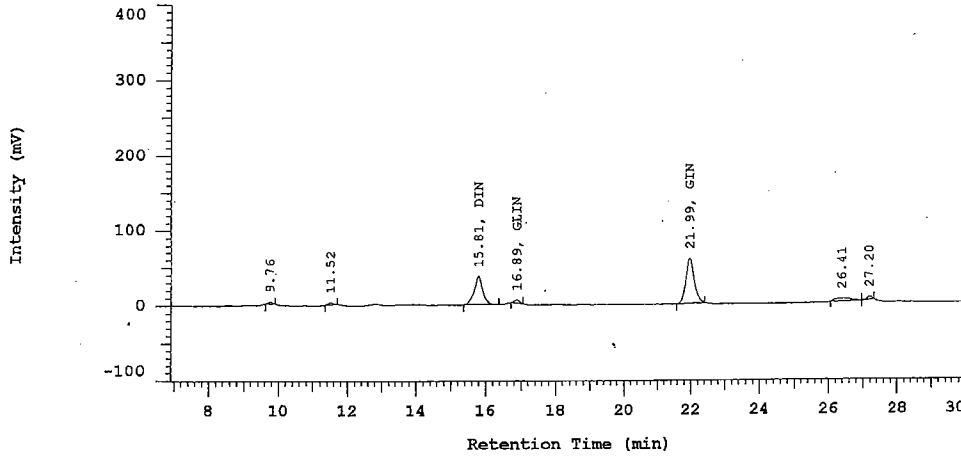
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
8	15.81	656006	DIN	13.2898	265.796	Aglycon 162.26 11.46 151.31
9	16.89	42843	GLIN	0.895449	17.9090	
10	21.99	1018277	GIN	12.1016	242.032	
		1717126		26.2868	525.736	

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 10:51 PM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 16

Sample Name: 1379-2

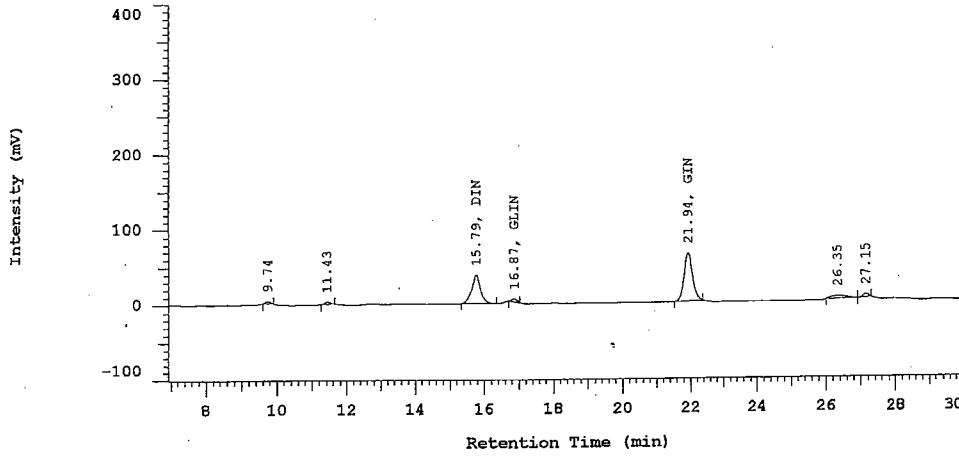
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
8	15.79	664670	DIN	13.4653	269.306	
9	16.87	42932	GLIN	0.897305	17.9461	
10	21.94	1088795	GIN	12.9396	258.793	
		1796397		27.3023	546.045	

Agkron
164.42
11.43
161.7

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 11:27 PM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 17

Sample Name: 21077-1

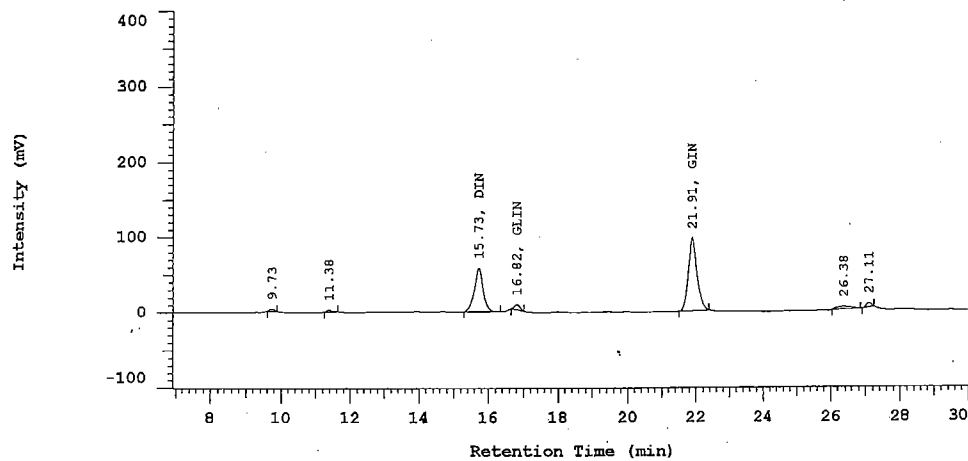
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
8	15.73	1009250	DIN	20.4460	408.921	Aglycon 249.6 20.2 244.11
9	16.82	76151	GLIN	1.59159	31.8318	
10	21.91	1643018	GIN	19.5262	390.525	
		2728419		41.5639	831.277	

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 12:03 AM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 18

Sample Name: 21077-2

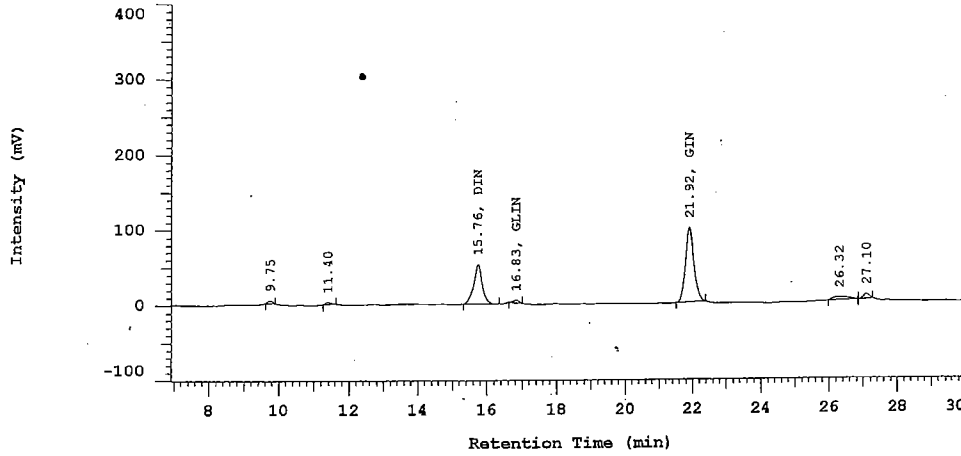
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
8	15.76	916597	DIN	18.5690	371.380	<i>Ag/Con</i> 226.7 10.06 253.0
9	16.83	37712	GLIN	0.788200	15.7640	
10	21.92	1702963	GIN	20.2386	404.773	
				39.5959	791.917	

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 12:39 AM

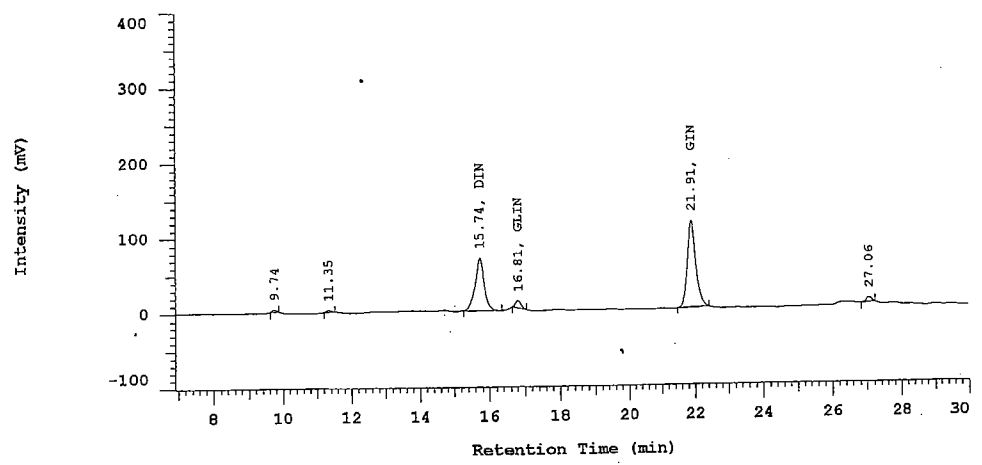
Reported: 04/08/04 03:32 PM
 Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\
 Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
 Application: Soy isoflavone
 Sample Name: 5639-1
 Injection from this vial: 1 of 1
 Sample Description:

Series:0004
 Vial Number: 19
 Vial Type: UNK
 Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
9	15.74	1236982	DIN	25.0596	501.192
10	16.81	106862	GLIN	2.23347	44.6694
11	21.91	2017498	GIN	23.9767	479.534
		3361342		51.2697	1025.39

Aglycone
 306.01
 28.41
 299.72

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 01:14 AM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 20

Sample Name: 5639-2

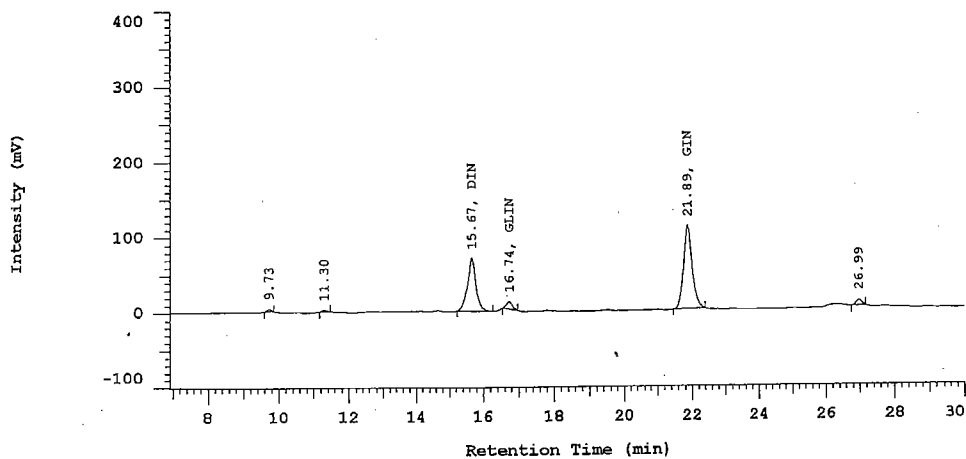
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
9	15.67	1208697	DIN	24.4866	489.731	<i>Aglycon</i> 299.0/ 31.94 286.8
10	16.74	120004	GLIN	2.50814	50.1628	
11	21.89	1930700	GIN	22.9452	458.903	
		3259401		49.9398	998.797	

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 01:50 AM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 21

Sample Name: 7014-1-1

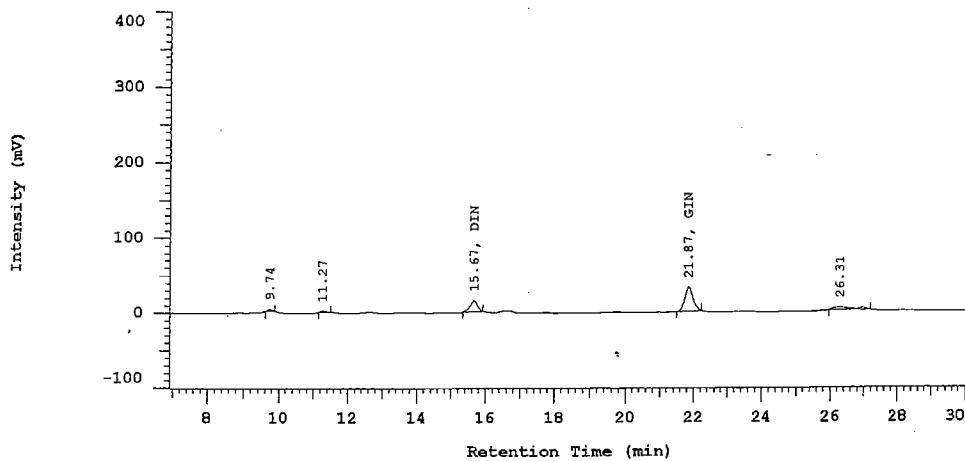
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	15.67	225859	DIN	4.57560	91.5120
9	21.87	534807	GIN	6.35585	127.117
		760666		10.9314	218.629

Ag/10x
55.8
79.4
/

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 02:26 AM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System (acquisition): Sys 2

Application: Soy isoflavone

Sample Name: 7014-1-2

Injection from this vial: 1 of 1

Sample Description:

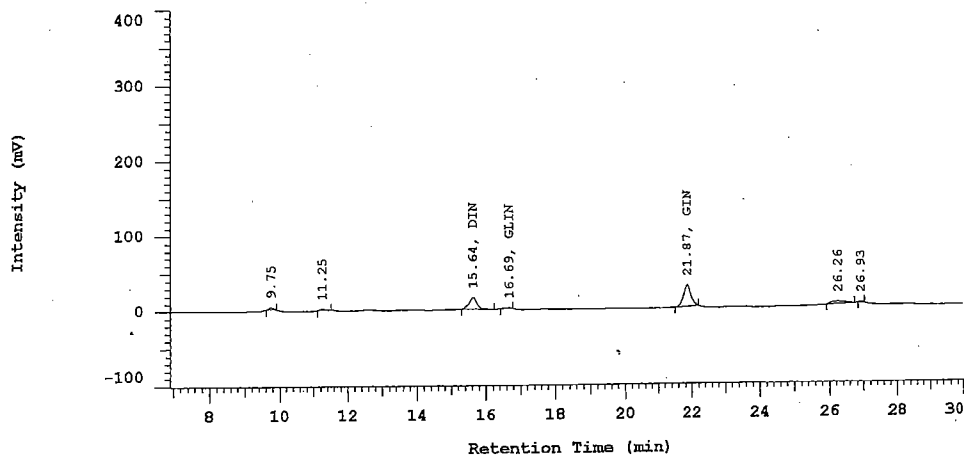
Series: 0004

Vial Number: 22

Vial Type: UNK

Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	15.64	265461	DIN	5.37789	107.558
9	16.69	18636	GLIN	0.389513	7.79025
10	21.87	455127	GIN	5.40891	108.178
		739224		11.1763	223.526

Aglycon
656
491
69.6

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 03:02 AM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 23

Sample Name: 7014-2-1

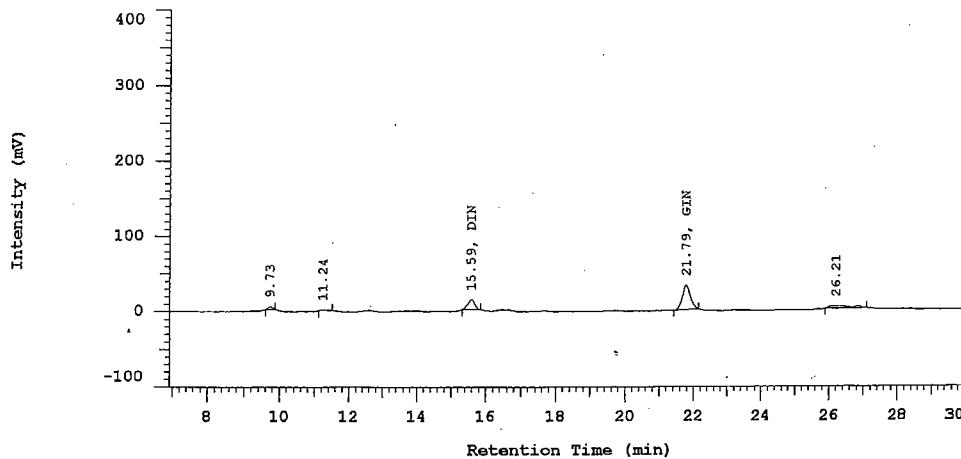
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	15.59	192513	DIN	3.90005	78.0011
9	21.79	533319	GIN	6.33817	126.763
		725832		10.2382	204.764

Handwritten notes:
 47.6
 79.2

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 03:38 AM

Reported: 04/08/04 03:32 PM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Application: Soy isoflavone

Sample Name: 7014-2-2

Injection from this vial: 1 of 1

Sample Description:

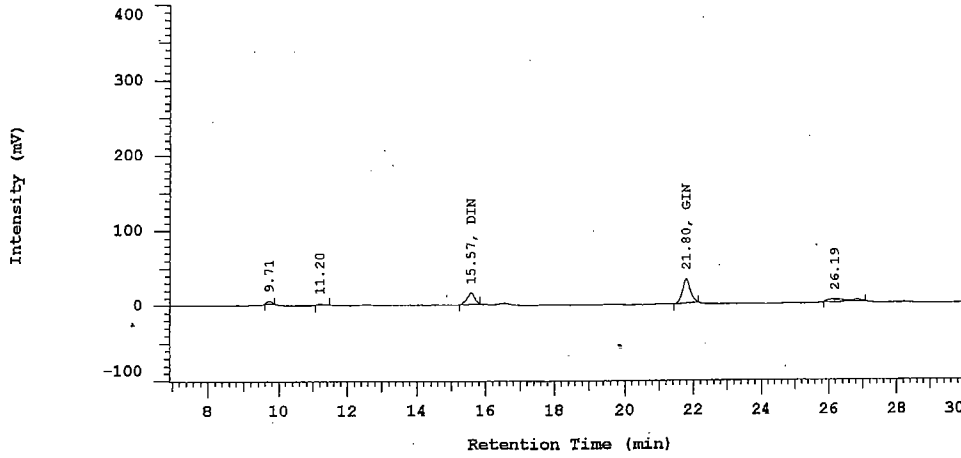
Series:0004

Vial Number: 24

Vial Type: UNK

Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	15.57	226680	DIN	4.59224	91.8449
9	21.80	511531	GIN	6.07923	121.585
		738211		10.6715	213.429

Aglycon
56.08
76.01

Peak rejection level: 0

CHAIN OF CUSTODY RECORD FOR HISTOLOGICAL, CHEMICAL AND BIOCHEMICAL SAMPLES

F

7014-04

TJE

SAMPLE CUSTODY RECORD Date 03/29/04
Page 1 of 1

Battelle
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98362

Project No.: 44626 Project Name: Avian Dosing Study Project Manager: Crystal Driver Phone: 509-375-2721				From: PNNL P.O. Box 999 Richland, WA 99352 Attn: Crystal Driver				To: Vet Med Diagnostic Laboratory Address: College of Veterinary Medicine-University of Missouri Columbia, MO 65211 Attn: Dr. George Rottinghaus		
Parameters										
Lab No.	Sample No.	Collection Date	Matrix	Total Estrogens	Genistein, daidzein, glycitein	Mycobatin Screen	Egrets		Number of Containers	Mill Date/Lot Number
PNNL	ADS-05	01/15/04	Layena Game bird Chow	X	X	X	X		2	03NOV10/ Feed store at ambient room temperature
total # of containers 2										
Relinquished by: <u>Crystal Driver</u> <u>3/29/04 9:50</u> Signature Date Time			Received by: <u>George E. Blaylock</u> <u>3/31/04 10:30 AM</u> Signature Date Time			Shipment Method: Special Requirements or Conditions: Sample Disposition: Distribution: 1. 2 copies to the Laboratory 2. 1 copy project manager 3. Return completed original to Battelle Marine Sciences Laboratory				
Printed Name: <u>Crystal Driver</u> Company: <u>PNNL</u>			Printed Name: _____ Company: _____							
Relinquished by: Signature Date Time			Received by: Signature Date Time							
Printed Name _____ Company _____			Printed Name _____ Company _____							

Please fax form to 509-375-6666 upon receipt with receipt signature.
Please enclose the original form with test results

2 feed
eb

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 7014-04
 ANALYSIS phytoestrogens
 CHEMIST Dr. George Rottinghaus

SAMPLE	Ant.	Volume	Volume used	FINAL VOLUME		
BIRD FEED1	5 gm	100ml	1ml	1ml		
BIRD FEED2	5 gm.	100ml	1ml	1ml		
CONTROL 1,2,3,4	5 gm	100ml	1ml	1ml		

COMMENTS: See _____ for Standards, Spike and Graph.

- Atomic Absorption
- Spec Ion electrode
- Gas Liquid Chrom
- Thin Layer Chrom
- HPLC
- Other

EXAMINED BY *George E. Rottinghaus*
 DATE 4/8/04

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 01:16 PM

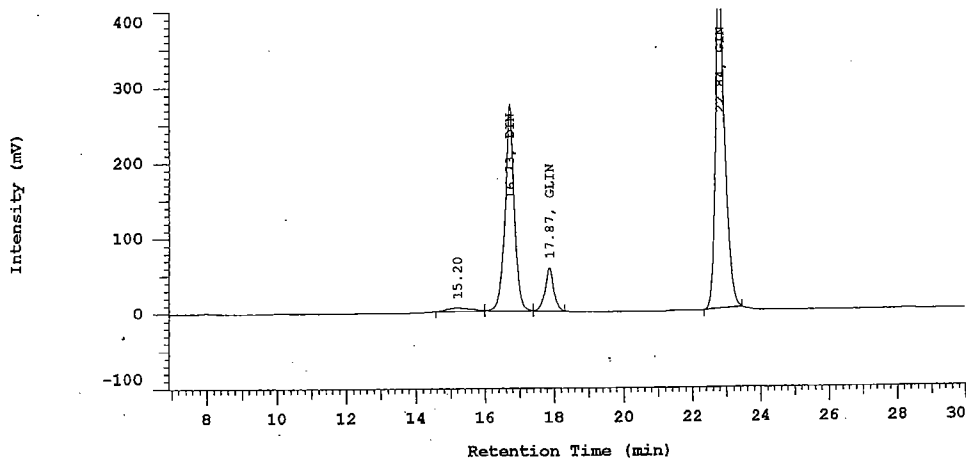
Reported: 04/18/05 11:29 AM
Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
Application: Soy isoflavone
Sample Name: Gen100/Dad100/Gly20
Injection from this vial: 1 of 1
Sample Description:

Series:0004
Vial Number: 1
Vial Type: STD1
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
3	16.73	5076263	DIN	100.000	2000.00
4	17.87	988996	GLIN	20.0000	400.000
5	22.84	8329264	GIN	100.000	2000.00
		14394523		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 01:52 PM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 2

Sample Name: Gen10/Dad10/Gly2

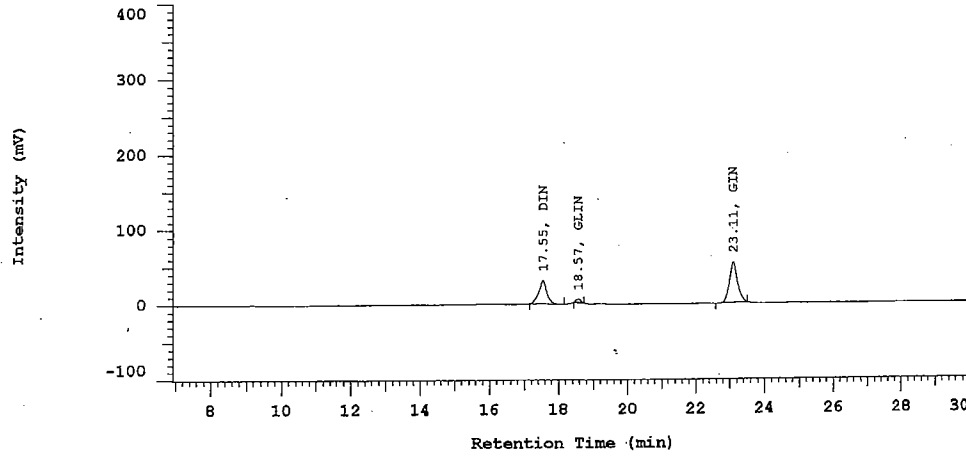
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	17.55	516821	DIN	10.0000	200.000
2	18.57	43514	GLIN	2.00000	40.0000
3	23.11	875656	GIN	10.0000	200.000
		1435991		22.0000	440.000

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 08:27 PM

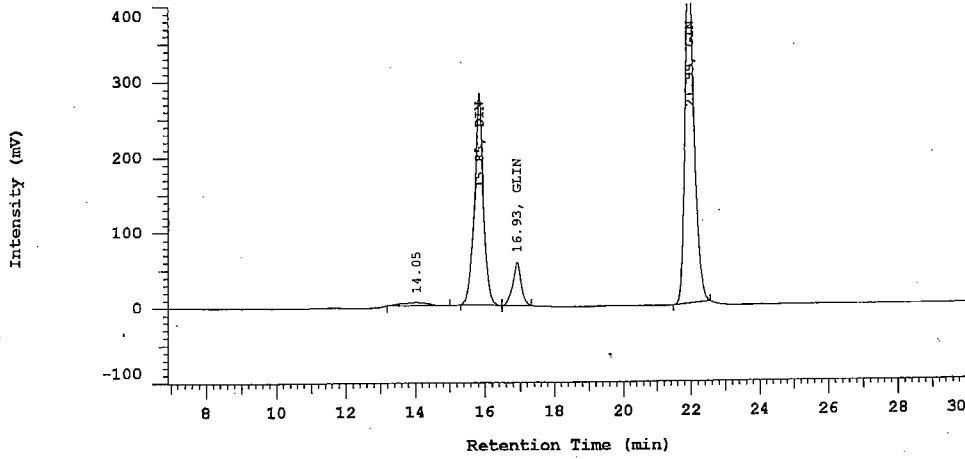
Reported: 04/18/05 11:29 AM
Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\
Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
Application: Soy isoflavone
Sample Name: Gen100/Dad100/Gly20
Injection from this vial: 1 of 1
Sample Description:

Series:0004
Vial Number: 1
Vial Type: STD1
Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
3	15.85	4908133	DIN	100.000	2000.00
4	16.93	949733	GLIN	20.0000	400.000
5	21.99	8399128	GIN	100.000	2000.00
		14256994		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 09:03 PM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 2

Sample Name: Gen10/Dad10/Gly2

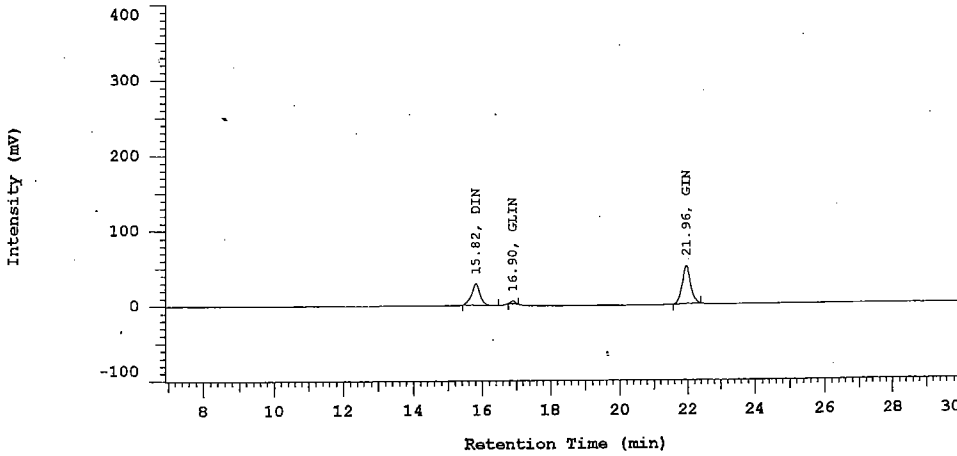
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

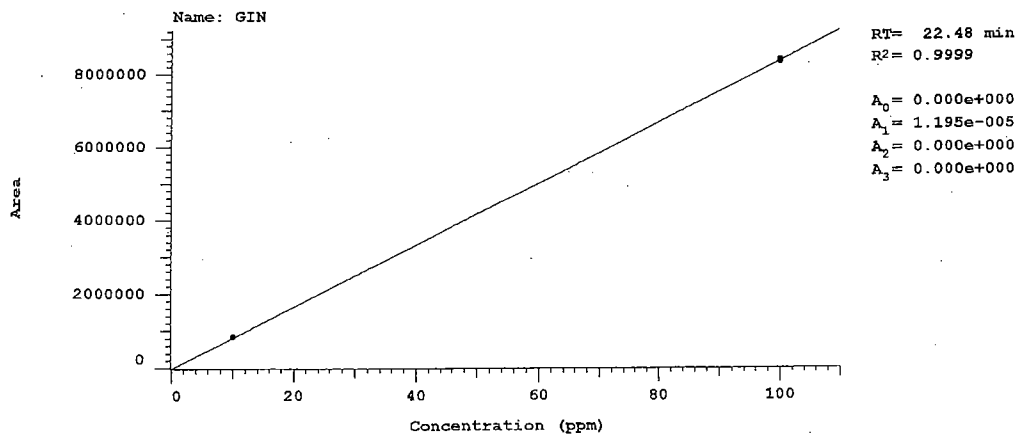
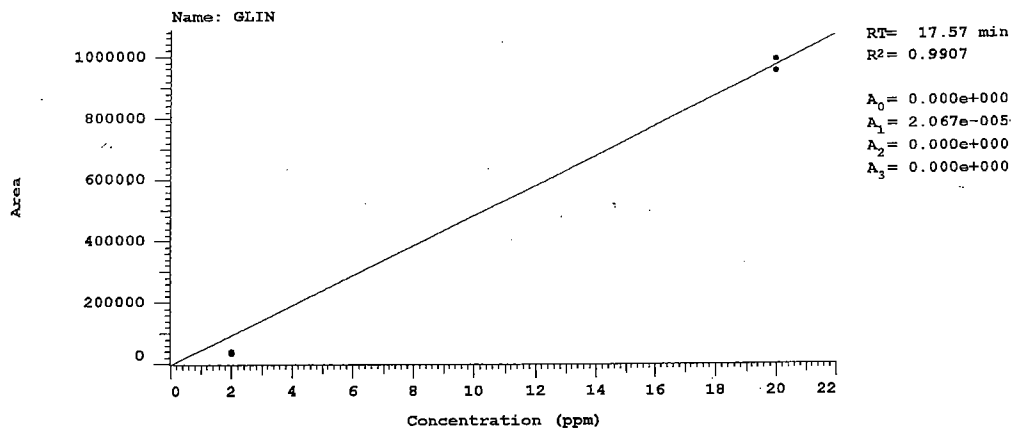
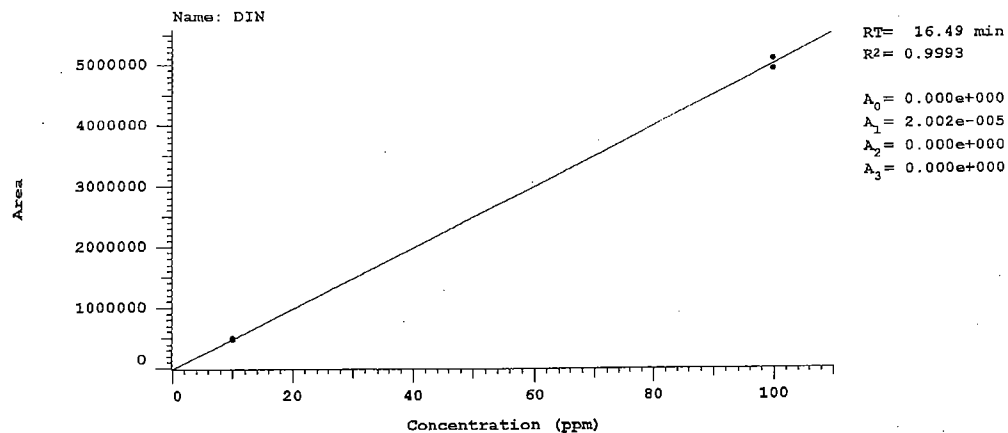
Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	15.82	502652	DIN	10.0000	200.000
2	16.90	37878	GLIN	2.00000	40.0000
3	21.96	881335	GIN	10.0000	200.000
				22.0000	440.000

Peak rejection level: 0

Channel 1 Calibration Curves and Results



D-7000 HPLC System Manager Report

Analyzed: 04/07/04 02:28 PM

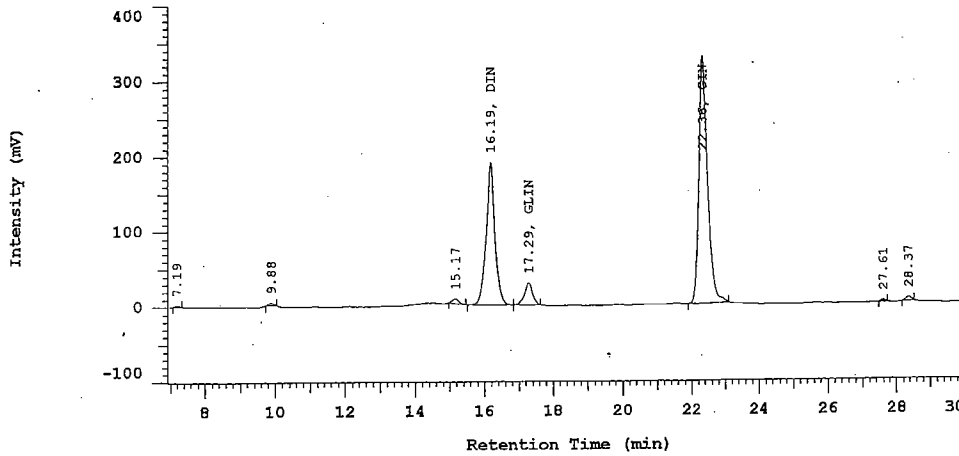
Reported: 04/18/05 11:29 AM
 Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\
 Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2
 Application: Soy isoflavone
 Sample Name: Control 1
 Injection from this vial: 1 of 1
 Sample Description:

Series:0004
 Vial Number: 3
 Vial Type: UNK
 Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
9	16.19	3335981	DIN	66.7908	1335.82 $\times 0.611 = 815$
10	17.29	473582	GLIN	9.79065	195.813 $\times 0.637 = 124$
11	22.36	5712637	GIN	68.2618	1365.24 $\times 0.625 = 853$
		9522200		144.843	2896.87

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 03:04 PM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Application: Soy isoflavone

Sample Name: Control 2

Injection from this vial: 1 of 1

Sample Description:

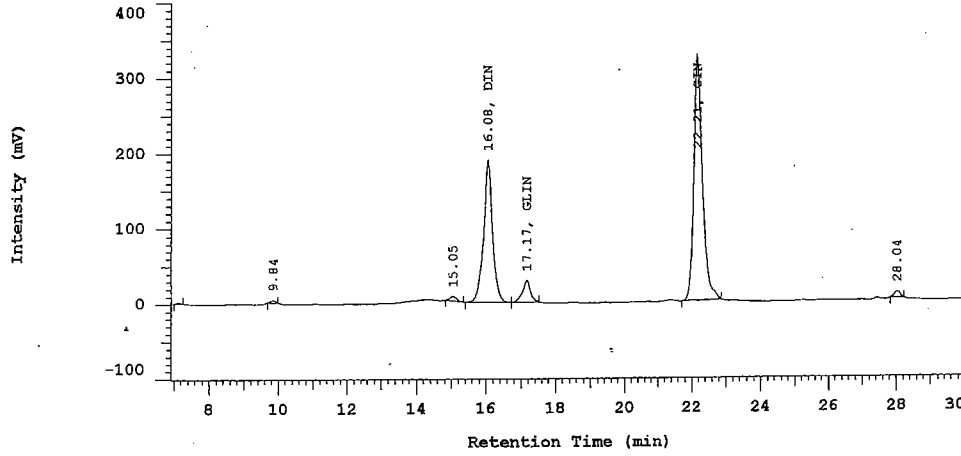
Series:0004

Vial Number: 4

Vial Type: UNK

Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
9	16.08	3337750	DIN	66.8262	1336.52 × 0.611 = 816 μg
10	17.17	473182	GLIN	9.78239	195.648 × 0.637 = 124 μg
11	22.21	5840484	GIN	69.7895	1395.79 × 0.625 = 872 μg
		9651416		146.398	2927.96

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 08:27 PM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Application: Soy isoflavone

Sample Name: Gen100/Dad100/Gly20

Injection from this vial: 1 of 1

Sample Description:

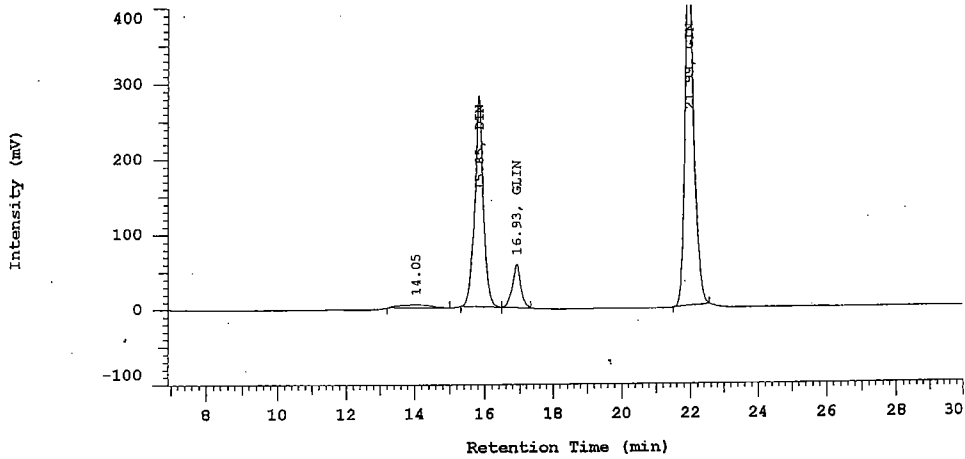
Series:0004

Vial Number: 1

Vial Type: STD1

Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
3	15.85	4908133	DIN	100.000	2000.00
4	16.93	949733	GLIN	20.0000	400.000
5	21.99	8399128	GIN	100.000	2000.00
		14256994		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 09:03 PM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 2

Sample Name: Gen10/Dad10/Gly2

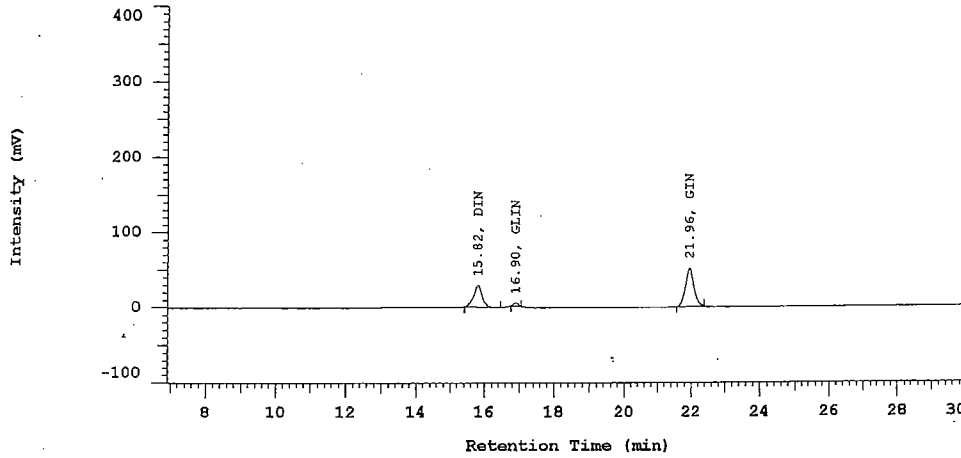
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	15.82	502652	DIN	10.0000	200.000
2	16.90	37878	GLIN	2.00000	40.0000
3	21.96	881335	GIN	10.0000	200.000
		1421865		22.0000	440.000

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 01:10 PM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 1

Sample Name: Gen100/Dad100/Gly20

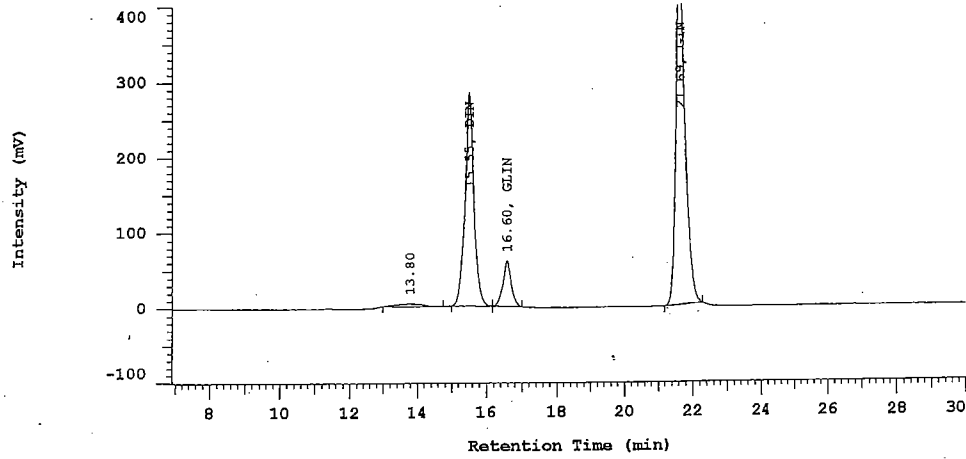
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
3	15.55	4961020	DIN	100.000	2000.00
4	16.60	968508	GLIN	20.0000	400.000
5	21.69	8422651	GIN	100.000	2000.00
		14352179		220.000	4400.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 01:46 PM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 2

Sample Name: Gen10/Dad10/Gly2

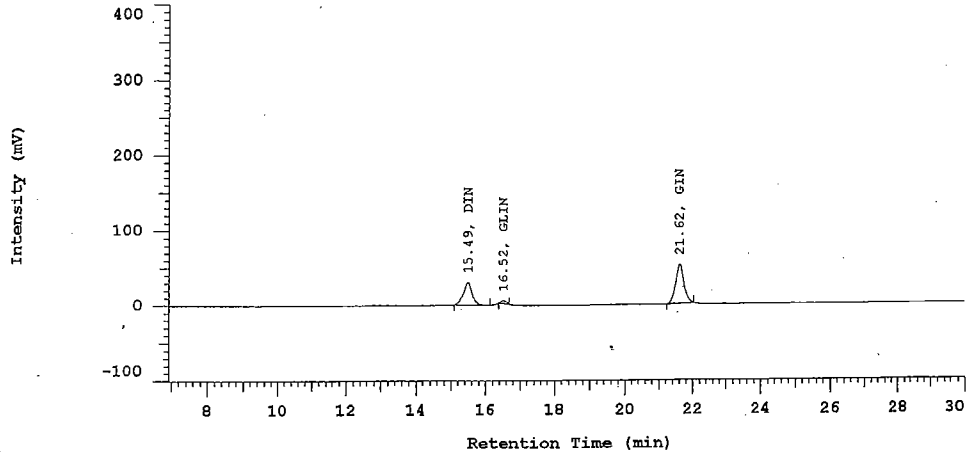
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

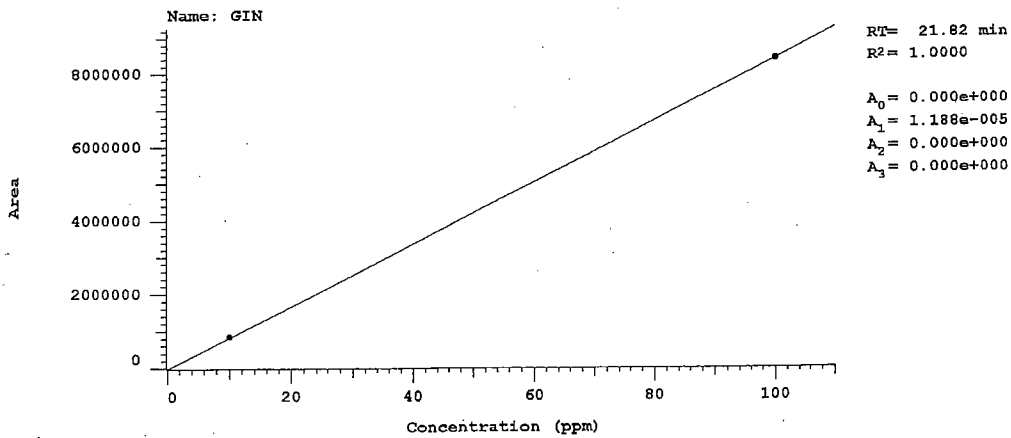
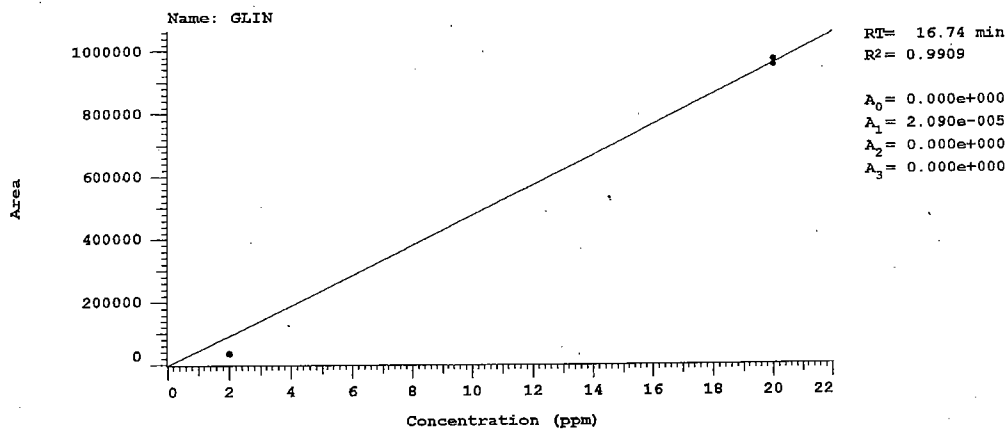
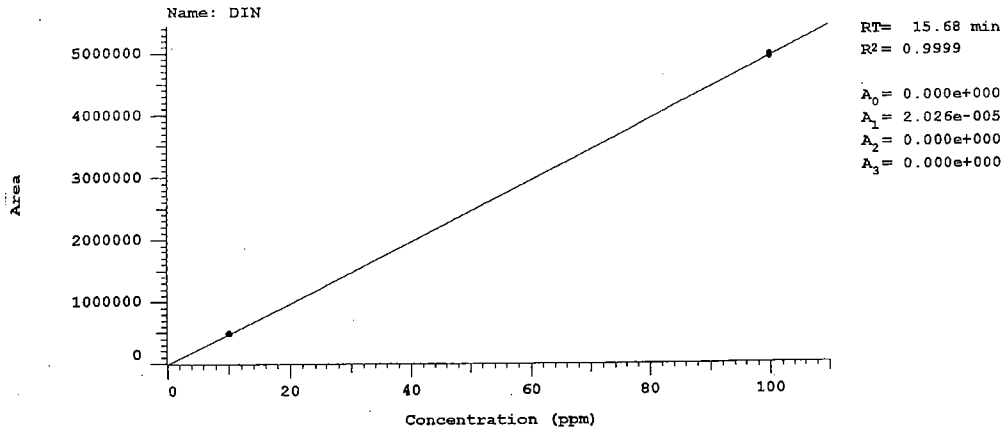
Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	15.49	512631	DIN	10.0000	200.000
2	16.52	38933	GLIN	2.00000	40.0000
3	21.62	868885	GIN	10.0000	200.000
		1420449		22.0000	440.000

Peak rejection level: 0

Channel 1 Calibration Curves and Results



D-7000 HPLC System Manager Report

Analyzed: 04/07/04 07:51 PM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 13

Sample Name: Control 3

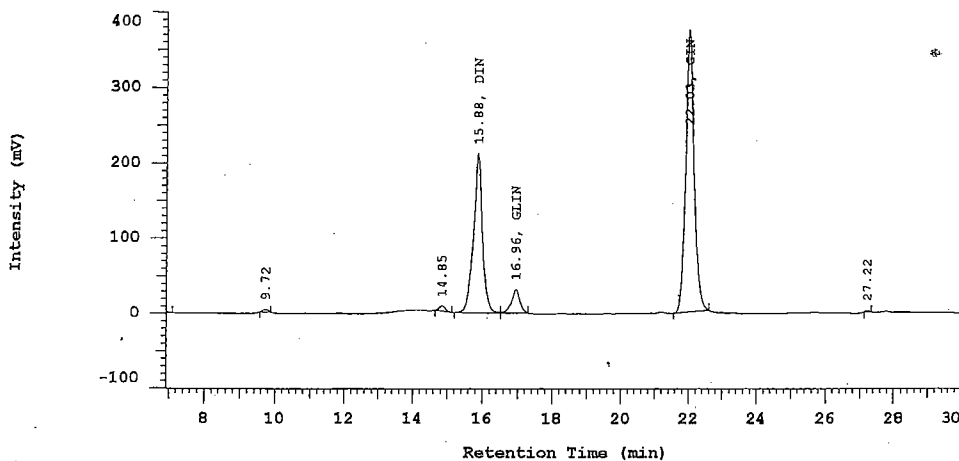
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm	
9	15.88	3727992	DIN	75.5240	1510.48	$1510.48 \times 0.611 = 923 \mu\text{M}$
10	16.96	498453	GLIN	10.4179	208.358	$208.358 \times 0.627 = 132 \mu\text{M}$
11	22.03	6460742	GIN	76.7819	1535.64	$1535.64 \times 0.625 = 959 \mu\text{M}$
		10687187		162.724	3254.48	

Peak rejection level: 0

AJE.
 Daidzein - 833 μM
 Glycitein - 120 μM
 Genistein - 869 μM

D-7000 HPLC System Manager Report

Analyzed: 04/07/04 09:39 PM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Application: Soy isoflavone

Sample Name: Control 4

Injection from this vial: 1 of 1

Sample Description:

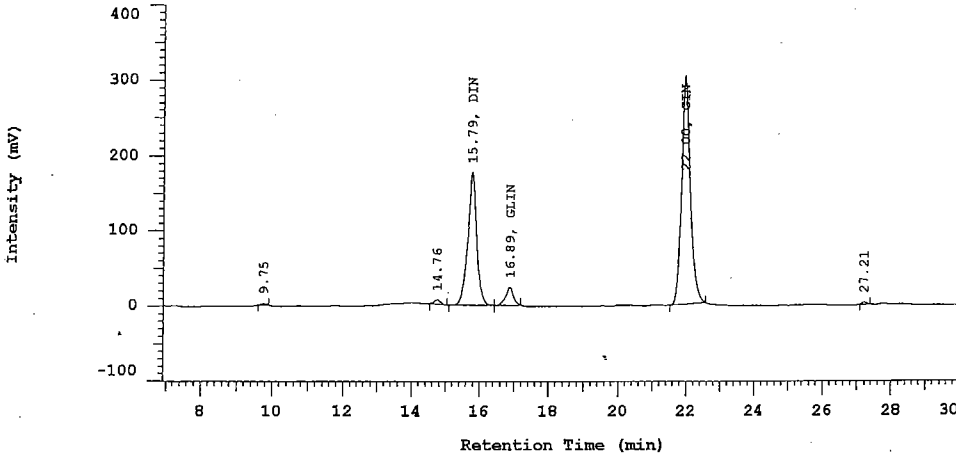
Series:0004

Vial Number: 14

Vial Type: UNK

Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	15.79	3148820	DIN	63.7908	$1275.82 \times 0.611 = 779$
9	16.89	376161	GLIN	7.86192	$157.238 \times 0.637 = 100$
10	22.00	5344083	GIN	63.5111	$1270.22 \times 0.625 = 793$
		8869064		135.164	2703.28

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 01:50 AM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 21

Sample Name: 7014-1-1

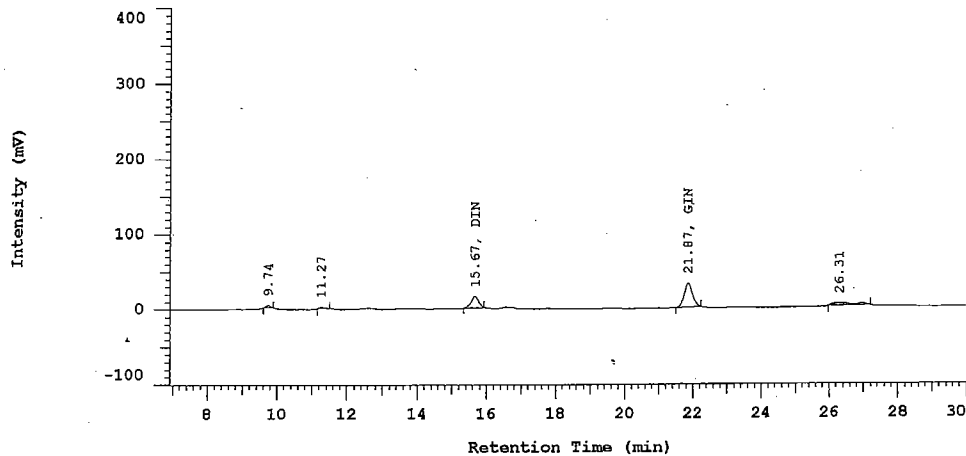
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	15.67	225859	DIN	4.57560	91.5120 × 0.611 = 56M
9	21.87	534807	GIN	6.35585	127.117 × 0.625 = 79M
		760666		10.9314	218.629

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 02:26 AM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 22

Sample Name: 7014-1-2

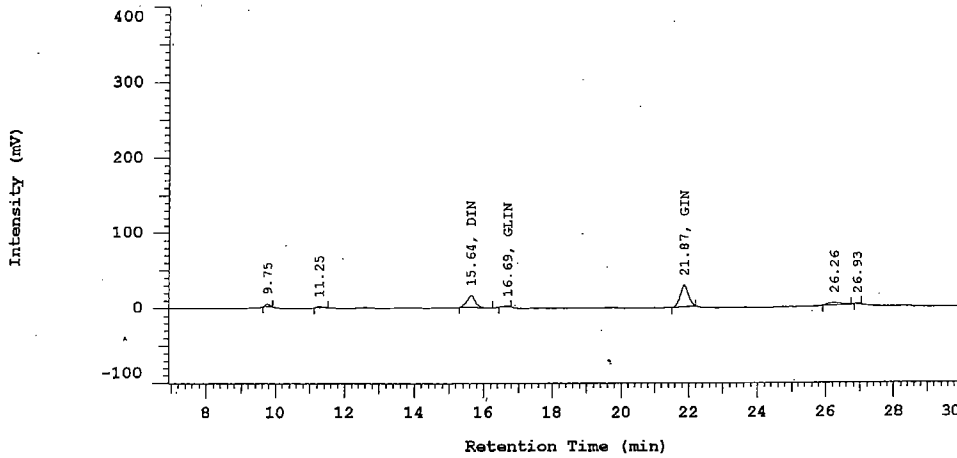
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No:	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	15.64	265461	DIN	5.37789	$107.558 \times 0.611 = 65 \mu\text{M}$
9	16.69	18636	GLIN	0.389513	$7.79025 \times 0.637 = 5 \mu\text{M}$
10	21.87	455127	GIN	5.40891	$108.178 \times 0.625 = 68 \mu\text{M}$
		739224		11.1763	223.526

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 03:02 AM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0004

Application: Soy isoflavone

Vial Number: 23

Sample Name: 7014-2-1

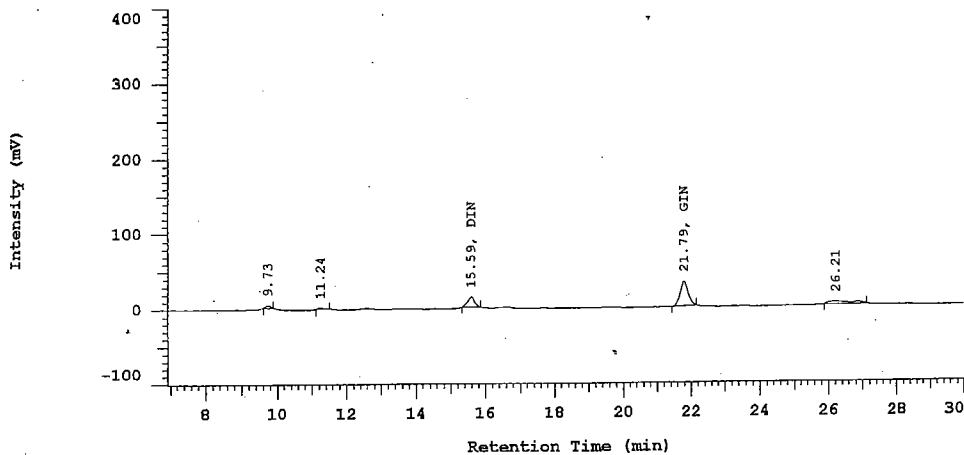
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	15.59	192513	DIN	3.90005	78.0011 × 0.611 = 48 pp
9	21.79	533319	GIN	6.33817	126.763 × 0.625 = 79 pp
		725832		10.2382	204.764

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/08/04 03:38 AM

Reported: 04/18/05 11:29 AM

Processed: 04/08/04 03:25 PM

Data Path: F:\Estrogen_04\Soy\DATA\0004\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Application: Soy isoflavone

Sample Name: 7014-2-2

Injection from this vial: 1 of 1

Sample Description:

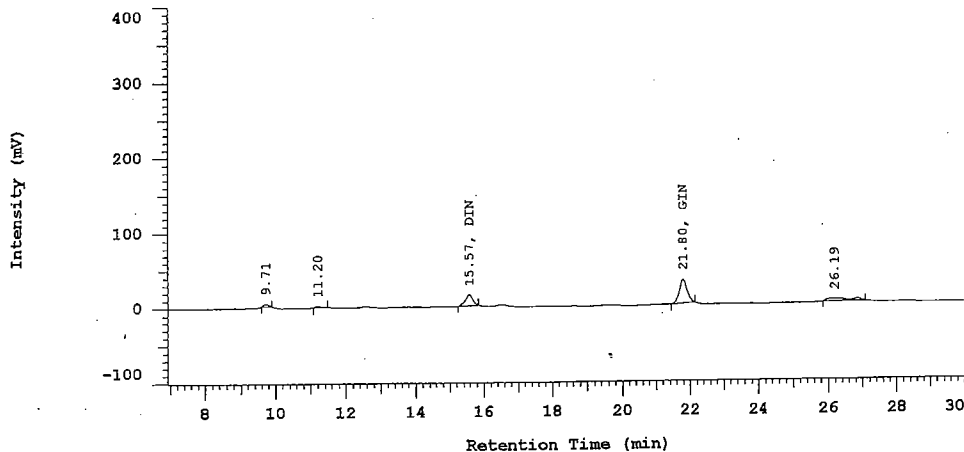
Series:0004

Vial Number: 24

Vial Type: UNK

Volume: 20.0 ul

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	15.57	226680	DIN	4.59224	91.8449 $\times 0.611 = 56 \mu\text{M}$
9	21.80	511531	GIN	6.07923	121.585 $\times 0.625 = 76 \mu\text{M}$
		738211		10.6715	213.429

Peak rejection level: 0

Ave =
 DAIDZEIN 56 μM
 GENISTEIN 76 μM

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 7014-04
 ANALYSIS ESTROGEN
 CHEMIST Dr George Rottinghaus

SAMPLE	Amt	Volume	INITIAL WT			
feed #1	2gm	100ml	192.5g			
feed #1	2gm	100ml	214.4g			
CONTROL	2gm	100ml	204.4			

COMMENTS: See _____ for Standards, Spike and Graph.

- Atomic Absorption _____
- Spec. Ion Electrode _____
- Gas Liquid Chrom _____
- Thin Layer Chrom _____
- HPLC _____
- Other _____

EXAMINED BY George Rottinghaus
 DATE 4/8/04

CFExtr Rprt 4-9-04 040405JT01 [Curve Fit]

CURVE FITTING WORKSHEET, DOSE-RESPONSE

DNA = Ctrl + ((Emax-Ctrl)*Conc)/(EC50+Conc)

Exp Date: 4-9-2004

ID#: 040405JT01

Sample: 7014-04 #1

Axis Label: mg eq/ml

X-Axis: Concentration

Y-Axis: DNA

Feed Extract (mg eq/ml)

Axis Units: ug/well

Reference Standard: Zearalenone

Ctrl 0.47817809 ± 0.014331

AE 0.51802577 ± 0.010954

E-11 1.4361801 ± 0.042364

E-10 1.35916147 ± 0.048464

blank 0.04987478 ± 0.005265

Ctrl 0.61792836 ± 0.010428

PlateCtrl: 0.47817809

E2Max: 1.4361801

AE: 0.51802577

Use for D-R fit? (y/n)

Use for Hill plot? (y/n)

Frac Resp

Use for Hill

Concentration (mg eq/ml)

DNA (ug/well)

0.00049664

0.00167558

0.0059365

0.02131532

0.06617288

0.2

0.22441345

0.19402959

0.14273533

0.14906787

0.32105775

0.7540138

6

3

Data pairs

Curve Fit pairs

6

3

Bold indicates y

0.05 < Y < 0.95

Enter data ONLY in the shaded cells. To change the # of points, insert or delete complete rows from the middle of the data range. Use "Paste Values", not "Paste", to enter data from other wks. Concentrations: ASCENDING ORDER, use SORT button

CF EC50 with nH: 0.09948654 mg eq/ml ± 0.0122427 R=96.269%

nH = 1.27671864 ± 0.2347286 R=98.609%

Line Est EC50: 0.1045226 mg eq/ml P = 0.44785

EC50: 0.102 mg eq/ml

Std Eq: 0.624 ppm Z eq

Emax=1.436

Ctrl=0.47818

Show Curve Fits? [btn]

Connect Points? [btn]

Fit to CmpdCtrl?

Fit to CmpdMax?

Use Hill Coefficient?

HILL PLOT

Log(Y/(Y-1)) vs Log(Concentration)

nH=1

Emax

R50

Ctrl

0.624 ppm Z eq

Concentration (mg eq/ml)

1E-05 1E-04 0.001 0.01 0.1 1 10

1.6 1.4 1.2 1 0.8 0.6 0.4 0.2 0

040405JT01-7014-04 #1; 04-09-04

CONCENTRATIONS

Blank

E-10

E-11

AE

Ctrl

1.6 1.4 1.2 1 0.8 0.6 0.4 0.2 0

2.5 ug/well

%Confluent: 57% (≤ 100%)

AE/Ctrl: 108% (≥ 90%)

Emax/Ctrl: 3.0034-fold (≥ 2-fold)

Specifications:

(Bold-face if outside)

Confluent above: 2.5 ug/well

%Confluent: 57% (≤ 100%)

AE/Ctrl: 108% (≥ 90%)

Emax/Ctrl: 3.0034-fold (≥ 2-fold)

Exp Date: 4-9-2004

ppth - mg/ml

ppm - µg/ml

ppb - ng/ml

ppt - pg/ml

ppq - fg/ml

for nH ≠ 1

Std Cmpd Eq = Std Cmpd EC50 ÷ Smp EC50

Use as Std:	Std Cmpd	Abbr	MW	Std Cmpd EC50	Std Cmpd Eq
<input checked="" type="radio"/>	Zearalenone	Z	318.4	2.00E-10	2.00E-10
<input type="radio"/>	Genistein	Gen	270.24	1.11E-08	1.11E-08
<input type="radio"/>	Bisphenol A	BPA	228.3	2.56E-07	2.56E-07
<input type="radio"/>	Zearalanol	RalGro	322.4	3.50E-12	3.50E-12
<input type="radio"/>	Estradiol	E2	272.4	1.41E-12	1.41E-12
<input type="radio"/>	Diethylstilbestrol	DES	268.4	2.60E-13	2.60E-13

Standard Compound Equivalent

Str. Line	Curve Fit	Hill Fit	Eq Unit
6.37E-11	0.609246	0.64008656	ppm
3.00E-09	28.698703	30.1514543	ppm
5.84E-08	559.15928	587.464369	ppm
1.13E-12	10.795748	11.3422374	ppb
3.84E-13	3.6746491	3.86066279	ppb
6.98E-14	667.64487	701.441591	ppb

LoD = "Limit of Detection"

Z eq ranges:
0.006 ppm: LoD
< 0.064 ppm: V. Low
0.064 to < 1 ppm: Low
≥ 1 and < 10 ppm: Moderate
≥ 10 ppm: High

CFExtr Rprt 4-9-04 040405JT02 [Curve Fit]

CURVE FITTING WORKSHEET, DOSE-RESPONSE

DNA = Ctrl + ((Emax-Ctrl)*Conc)/(EC50+Conc)

Exp Date: 4-9-2004

ID#: 040405JT02

Sample: 7014-04 #2

X-Axis: Concentration

Y-Axis: DNA

Axis Units: mg eq/ml

do not change

Reference Standard: Zearalenone

(Z)

Negative? n

Cutoff: 2

blank 0.04987478 ± 0.005265

Ctrl 0.61792836 ± 0.010428

PlateCtrl: 0.47817809

E2Max: 1.4361801

AE: 0.51802577

[Done]

Concentrator DNA Use for D-R Use for Hill

(mg eq/ml) (ug/well) fit? (y/n) plot? (y/n)

0.00049664 0.52100917 y 0.04470876 n

0.00167558 0.57845118 n 0.10466898 n

0.0059365 0.58769648 y 0.11431959 y

0.02131532 0.70964067 y 0.24160971 y

0.06617288 0.86494523 y 0.40372269 y

0.2 1.37626797 y 0.93746138 y

Data pairs 6 Bold indicates y

Curve Fit pairs 5 0.05 < r < 0.95

HILL PLOT

Use Hill Coefficient?

Y

Log (Concentration)

Str. Line

Curve Fit

HillSlope

HillUnits

Eq Unit

Std Cmpd EC50: g/ml

Std Cmpd MW

Abbbr

Gen

BPA

RalGro

E2

DES

Enter data ONLY in the shaded cells. To change the # of points, insert or delete complete rows from the middle of the data range. Use "Paste Values", not "Paste", to enter data from other wks. Concentrations: ASCENDING ORDER; use SORT button

Curve Fit EC50: 0.06076478 mg eq/ml ± 0.0173994 R=95.452%

GF-EC50 with nH: 0.06275789 mg eq/ml ± 0.0138926 R=96.399%

nH = 1.27212434 ± 0.3558758 P = 0.524376

Line Est EC50: 0.0807843 mg eq/ml

EC50: 0.0628 mg eq/ml

Std Eq: 1.01 ppm Z eq

Emax=1.436

Ctrl=0.47818

040405JT02-7014-04 #2; 04-09-04

1.6

1.4

1.2

1.0

0.8

0.6

0.4

0.2

0

1E-05

1E-04

0.001

0.01

0.1

1

10

Concentration (mg eq/ml)

DNA (ug/well)

Emax

R50

Ctrl

1.01 ppm Z eq

(1E+01)

(1E-05)

CONTROLS

Ctrl

E-10

E-11

A-B

Blank

DNA (ug/well)

LoD = "Limit of Detection"

Z eq ranges:

0.006 ppm: LoD

< 0.064 ppm: Y. Low

0.064 to < 1 ppm: Low

≥ 1 and < 10 ppm: Moderate

≥ 10 ppm: High

Exp Date: 4-9-2004

ppth - mg/ml

ppm - µg/ml

ppb - ng/ml

ppt - pg/ml

ppq - fg/ml

for nH ≠ 1

Specifications:

(Bold-face if outside)

Confluent above:

2.5 µg/well

%Confluent:

57% (≤ 100%)

AE/Ctrl:

108% (≥ 90%)

Emax/Ctrl:

3.0034-fold (≥ 2-fold)

LoD = "Limit of Detection"

Z eq ranges:

0.006 ppm: LoD

< 0.064 ppm: Y. Low

0.064 to < 1 ppm: Low

≥ 1 and < 10 ppm: Moderate

≥ 10 ppm: High

CFExtr Rprt 4-9-04 040405JT04 [Curve Fit]

CURVE FITTING WORKSHEET, DOSE-RESPONSE

DNA = Ctrl + ((Emax-Ctrl)*Conc)/(EC50+Conc)

Exp Date: 4-9-2004

ID#: 040405JT04

Sample: Control

Axis Label: mg eq/ml

X-Axis: Concentration

Y-Axis: DNA

Feed Extract (mg eq/ml)

Axis Units: mg eq/ml

mg eq/ml ug/well

Reference Standard: Genistein

Ctrl 0.55718084 ± 0.013371

AE 0.50902265 ± 0.00897

E-11 1.54265735 ± 0.015555

E-10 1.50744436 ± 0.052021

blank 0.0608823 ± 0.002758

Ctrl 0.70106678 ± 0.013382

PlateCtrl: 0.55718084

E2Max: 1.54265735

AE: 0.50902265

Concentrator DNA Use for D-R Use for Hill

(mg eq/ml) (ug/well) fit? (y/n) plot? (y/n)

0.00049664 0.66395511 n y

0.00167558 0.64549636 n y

0.0059365 0.6670258 y y

0.02131532 1.00056529 y y

0.06617288 1.54988114 y y

0.2 1.45790762 n y

Data pairs 6 Bold indicates y

Curve Fit pairs 3 0.05 < \bar{Y} < 0.95

Enter data ONLY in the shaded cells. To change the # of points, insert or delete complete rows from the middle of the data range. Use "Paste Values", not "Paste", to enter data from other wks. Concentrations: ASCENDING ORDER; use SORT button

Curve Fit EC50: 0.01932288 mg eq/ml ± 0.010598 R=90.337%

Line Est: EC50: 0.0235991 mg eq/ml nH = 1.46668772 (NA, df<1)

EC50: 0.0204 mg eq/ml

Std Eq: 147 ppm Gen eq

Emax=1.543

Ctrl=0.55718

040405JT04 Control; 04-09-04

147 ppm Gen eq

DNA (ug/well)

Concentration (mg eq/ml)

Emax

R50

Ctrl

1E-05

1E-04

0.001

0.01

0.1

1

10

1.8

1.6

1.4

1.2

0.8

0.6

0.4

0.2

0

(1E-05) (1E-05)

(1E+01)

Exp Date: 4-9-2004

ppth - mg/ml

ppm - µg/ml

ppb - ng/ml

ppt - pg/ml

ppq - fg/ml

for nH ≠ 1

Specifications:

(Bold-face if outside)

Confluent above:

2.5 µg/well

%Confluent:

62% (≤ 100%)

AE/Ctrl:

91% (≥ 90%)

Emax/Ctrl:

2.7687-fold (≥ 2-fold)

CONTROLS

Blank

Ctrl

AE

E1

E2

E3

DNA (ug/well)

1.8

1.6

1.4

1.2

0.8

0.6

0.4

0.2

0

Blank

Ctrl

AE

E1

E2

E3

DNA (ug/well)

1.8

1.6

1.4

1.2

0.8

Standard, Compd, Equivalent

Str. Line Curve Fit Hill/Fit Eq Unit

6.37E-11 2.6984107 3.29557514 2.72705388 ppm

3.00E-09 127.10938 155.238978 147.500643 ppm

5.84E-08 2476.5715 3024.64243 2869.97365 ppm

1.13E-12 47.815431 58.3970947 55.4108359 ppm

3.84E-13 16.275383 19.8771621 18.8560791 ppm

6.98E-14 2.9570649 3.6114701 3.42679316 ppm

Std Cmpd EC50: g/ml

2.00E-10

1.11E-08

2.56E-07

3.50E-12

1.41E-12

2.60E-13

Use as Std: Std Cmpd Abbr MW

Zearalenone Z 318.4

Genistein Gen 270.24

Bisphenol A BPA 228.3

Zearalanol Ra(Gro) 322.4

Estradiol E2 272.4

Diethylstilbestrol DES 268.4

Std Cmpd Eq = Std Cmpd EC50 ÷ Smp EC50

LoD = "Limit of Detection"

Z eq ranges:

0.006 ppm: LoD

< 0.064 ppm: Y. Low

0.064 to < 1 ppm: Low

≥ 1 and < 10 ppm: Moderate

≥ 10 ppm: High

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 7014-04

ANALYSIS Mycotoxin Screen

CHEMIST Dr George Rottinghaus

SAMPLE	Amt	mls used	ul spotted	aflatoxin	vomitoxin	zearalenone	ochratoxin
c18 s6 Feed-1	50.0g	5/100	10/100	N/D	—	N/D	N/D
	—	10/100	10/100	—	N/D	—	—
c18 s6 Feed-2	50.0g	5/100	10/100	N/D	—	N/D	N/D
	—	10/100	10/100	—	N/D	—	—
Standards	—	—	10	.45	.40	.24	.34

COMMENTS: See 6830-04 for TLC Standards and Spike

- 1. Spiked with 100 ul each: 25 ppm zearalenone, 2.5 ppm ochratoxin A, 0.5 ppm aflatoxin B₁
- 2. Spiked with 100 ul 25 ppm vomitoxin

EXAMINED BY Charles Costen
 DATE 1/4/04

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 832-6811

CASE NUMBER 7014-04
 ANALYSIS Fumonisin
 CHEMIST Dr George Rottinghaus

SAMPLE	Amount	Vol Ext	ul spk	Result	
Feed-1	50.0g	$\frac{2}{100}$	$\frac{10}{200}$	N/D	Clippor
Feed-2	50.0g	$\frac{2}{100}$	$\frac{10}{200}$	N/D	
Spk-Corn	50.0g	* $\frac{2}{100}$	$\frac{10}{200}$	+	
Fumonisin B1			10	+	

* 100ul 10 ppm Fumonisin B1 = 1mg/100ul = 1ppm
 COMMENTS: See _____ for Standards, Spike and Graph.

- Atomic Absorption
- Spec. Ion Electrode
- Gas Liquid Chrom
- Thin Layer Chrom
- HPLC
- Other

EXAMINED BY Charles Costley
 DATE 4/1/04

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 7014-04
 ANALYSIS Ergot Screen
 CHEMIST Dr George Rottinghaus

SAMPLE	amt used	vol Final Vol	ergosine	ergotamine	ergocornine	ergocryptine	ergocristine
Feed #1	10g	10/100 2ml	-	-	-	-	-
Feed #2	10g	10/100 2ml	-	-	-	-	-
ERGOT	0.5g	100 10ml	+	+	+	+	+

COMMENTS: See _____ for Standards, Spike and Graph.

<u>Alkaloid</u>	<u>Conc</u>	<u>RT</u>	<u>Pk Ht</u>	<u>RsF</u>	<u>Sample RT</u>	<u>Pk Ht</u>	<u>Conc</u>
Ergosine							
Ergotamine							
Ergocornine							
Ergocryptine							
Ergocristine							

M224 method

Ergosil method

EXAMINED BY

George E. Rottinghaus

DATE

4/5/04

7017-1

D-7000 HPLC System Manager Report

Analyzed: 04/05/04 04:29 PM

Reported: 04/06/04 09:05 AM

Processed: 04/06/04 09:05 AM

Data Path: C:\WIN32APP\HSM\George\DATA\0011\

Processing Method: ergot screen

System(acquisition): Sys 1

Series:0011

Application: George

Vial Number: 1

Sample Name: 100 ppb ergot mix

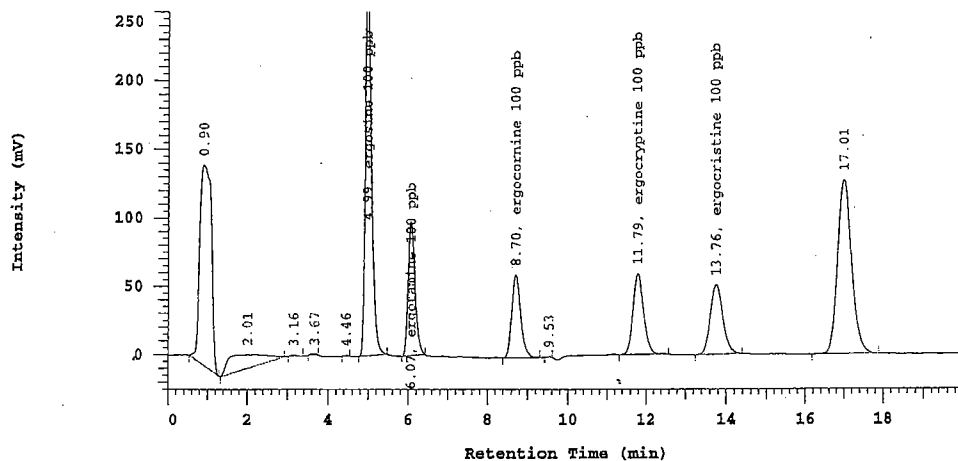
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergosine 100 ppb	4.99	2944064	100.000	200.000
ergotamine 100 ppb	6.07	1142666	100.000	200.000
ergocornine 100 ppb	8.70	920386	100.000	200.000
ergocryptine 100 ppb	11.79	1113040	100.000	200.000
ergocristine 100 ppb	13.76	1084627	100.000	200.000
		7204783	500.000	1000.00

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 04/05/04 05:52 PM

Reported: 04/06/04 09:05 AM

Processed: 04/06/04 09:05 AM

Data Path: C:\WIN32APP\HSM\George\DATA\0011\

Processing Method: ergot screen

System(acquisition): Sys 1

Series:0011

Application: George

Vial Number: 1

Sample Name: 100 ppb ergot mix

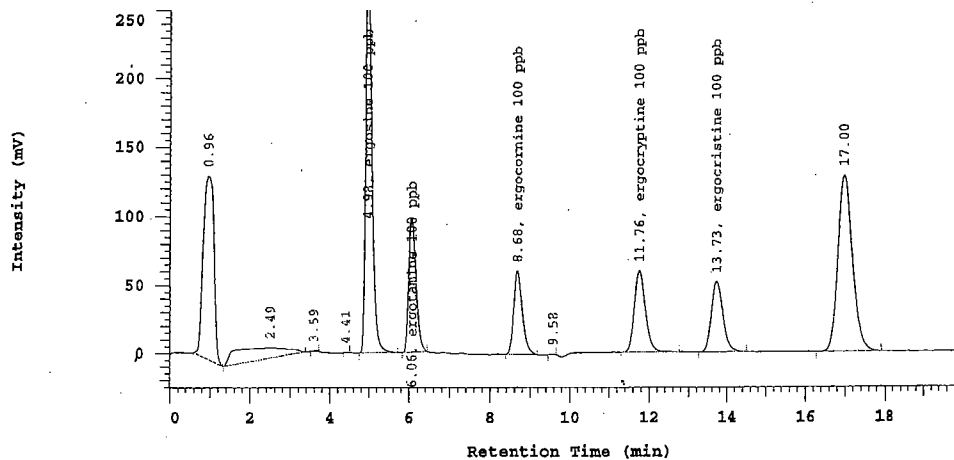
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

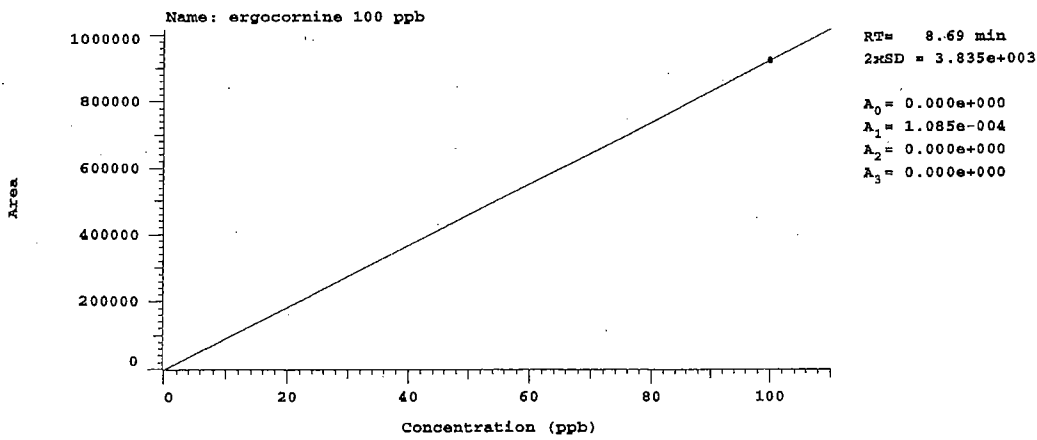
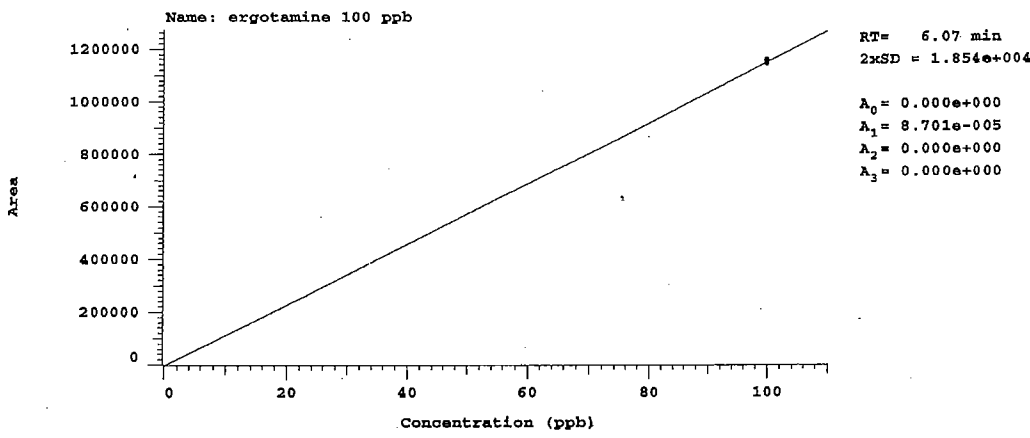
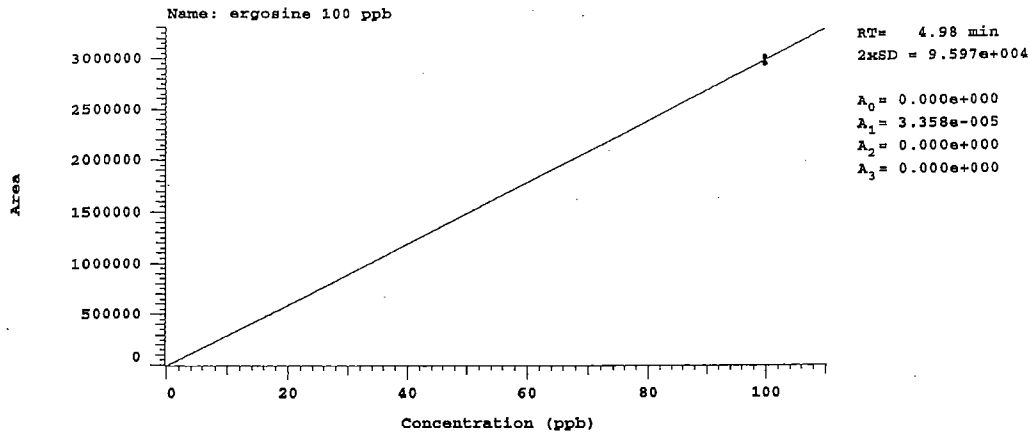
Chrom Type: HPLC Channel : 2

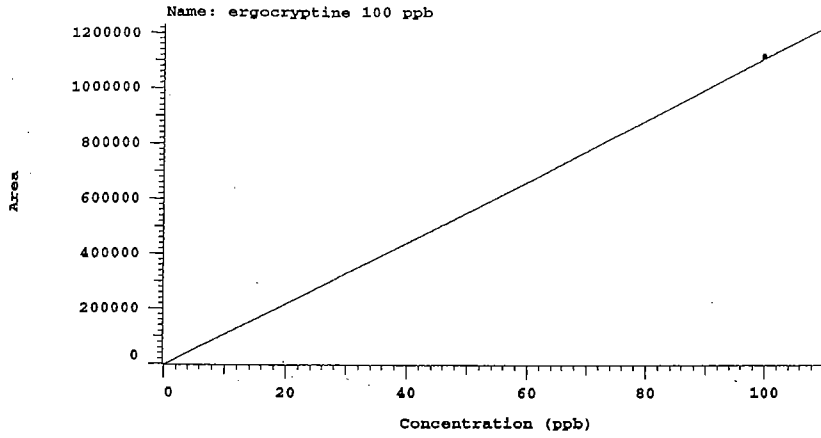


Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergosine 100 ppb	4.98	3011922	100.000	200.000
ergotamine 100 ppb	6.06	1155773	100.000	200.000
ergocornine 100 ppb	8.68	923098	100.000	200.000
ergocryptine 100 ppb	11.76	1117875	100.000	200.000
ergocristine 100 ppb	13.73	1105849	100.000	200.000
		7314517	500.000	1000.00

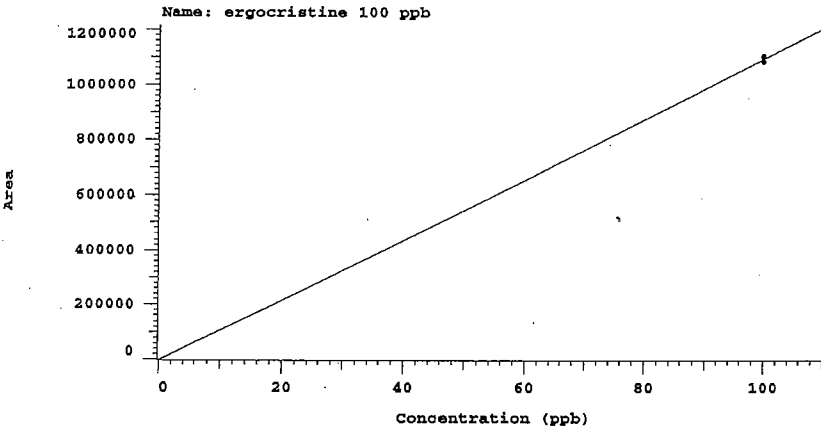
Peak rejection level: 10

Channel 2 Calibration Curves and Results





RT= 11.78 min
 2xSD = 6.838e+003
 A₀ = 0.000e+000
 A₁ = 8.965e-005
 A₂ = 0.000e+000
 A₃ = 0.000e+000



RT= 13.75 min
 2xSD = 3.001e+004
 A₀ = 0.000e+000
 A₁ = 9.130e-005
 A₂ = 0.000e+000
 A₃ = 0.000e+000

Name	Pts	A0	A1	A2	A3	2 x SD	Units
ergosine 100 ppb	2	0.000E+00	3.358E-05	0.000E+00	0.000E+00	9.597E+04	ppb
ergotamine 100 ppb	2	0.000E+00	8.701E-05	0.000E+00	0.000E+00	1.854E+04	ppb
ergocornine 100 ppb	2	0.000E+00	1.085E-04	0.000E+00	0.000E+00	3.835E+03	ppb
ergocryptine 100 ppb	2	0.000E+00	8.965E-05	0.000E+00	0.000E+00	6.838E+03	ppb
ergocristine 100 ppb	2	0.000E+00	9.130E-05	0.000E+00	0.000E+00	3.001E+04	ppb

Least Squares Analysis
 Order: Linear - f(Response)
 Through zero: YES
 Weight factor: 1.0

D-7000 HPLC System Manager Report

Analyzed: 04/05/04 04:50 PM

Reported: 04/06/04 09:05 AM

Processed: 04/06/04 09:05 AM

Data Path: C:\WIN32APP\HSM\George\DATA\0011\

Processing Method: ergot screen

System(acquisition): Sys 1

Series:0011

Application: George

Vial Number: 2

Sample Name: 7014-04 #1

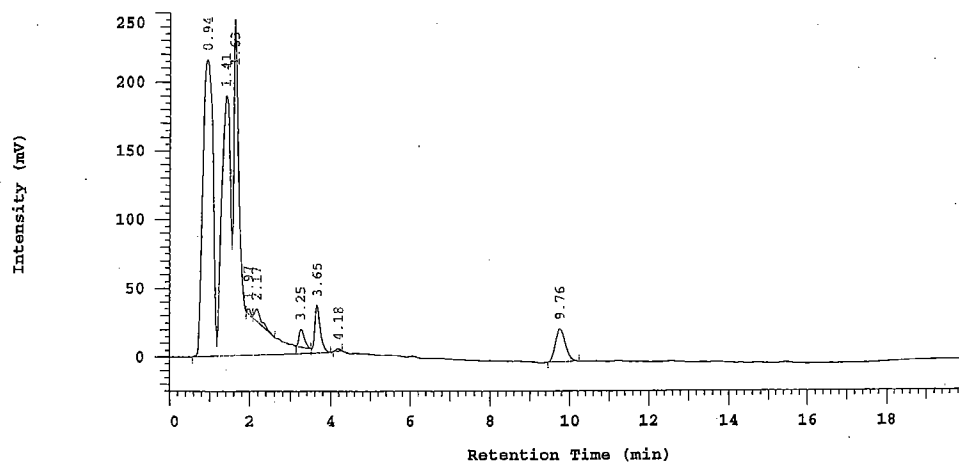
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
		0	0.000000	0.000000

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 04/05/04 05:11 PM

Reported: 04/06/04 09:05 AM

Processed: 04/06/04 09:05 AM

Data Path: C:\WIN32APP\HSM\George\DATA\0011\

Processing Method: ergot screen

System(acquisition): Sys 1

Series:0011

Application: George

Vial Number: 3

Sample Name: 7014-04 32

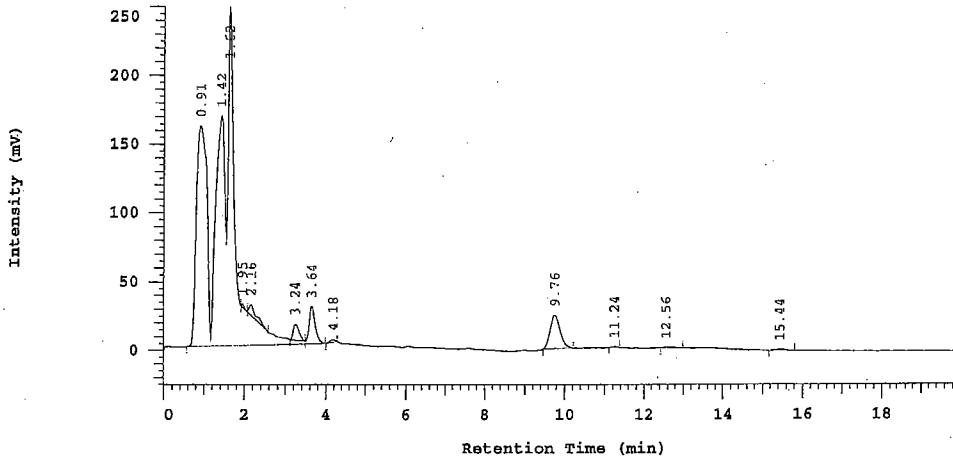
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
		0	0.000000	0.000000

Peak rejection level: 10

D-7000 HPLC System Manager Report

Analyzed: 04/05/04 05:32 PM

Reported: 04/06/04 09:05 AM

Processed: 04/06/04 09:05 AM

Data Path: C:\WIN32APP\HSM\George\DATA\0011\

Processing Method: ergot screen

System(acquisition): Sys 1

Series:0011

Application: George

Vial Number: 4

Sample Name: ergot

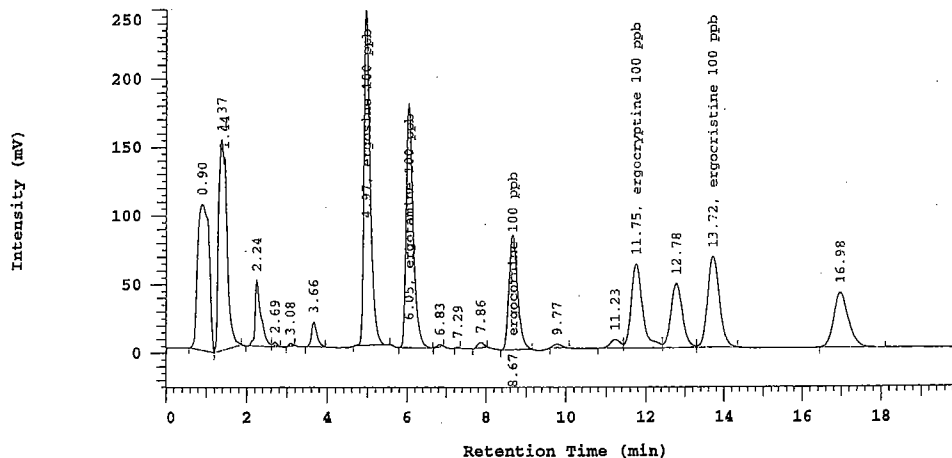
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 2



Name	RT	Area	Conc 1 ppb	Conc 2 ppb
ergosine 100 ppb	4.97	2718575	91.2770	182.554
ergotamine 100 ppb	6.05	2167426	188.594	377.187
ergocornine 100 ppb	8.67	1250808	135.700	271.400
ergocryptine 100 ppb	11.75	1223822	109.714	219.429
ergocristine 100 ppb	13.72	1400993	127.905	255.810
		8761624	653.190	1306.38

Peak rejection level: 10

Report Date
04/07/2005

UNIVERSITY OF MISSOURI
VET MED DIAGNOSTIC LAB
P.O. BOX 6023

Page 1 of 2

COLUMBIA, MO 65205

Phone #: 573-882-6811 Fax #: 573-882-1411

Owner: BATTELLE ACCOUNTS PAYABLE
ATTN PO NO. 16241
PO BOX 999, MS J1-04
RICHLAND, WA 99352

Accession Number: 05-04276
Reference Number: PO NO. 16241
Case Coordinator: Tim Evans DVM, MS, PhD
Received: 03/04/2005 Finalized: 04/07/2005
Sampled:
Veterinarian: .

To: BATTELLE ACCOUNTS PAYABLE
RICHLAND, WA 99352

Addended Report

TOXICOLOGY RESULTS

ADDED COMMENTS

COMMENTS

3/22/2005:

The concentrations of the aglycones of daldzein, glycitein and genestein has been entered individually for each of the submitted samples.

Tim J. Evans, DVM, MS, PhD, DACT, DABVT

TOXICOLOGY COMMENTS

COMMENTS

3/16/2005:

This report will be amended when the results of the genestein analyses are available. None of the mycotoxins for which analyses were performed were detected by thin layer chromatography (TLC) in the submitted sample. Using TLC, the levels of detection for aflatoxin B1, ochratoxin A, zearalenone and vomitoxin were 0.02 ppm, 0.05 ppm, 0.5 ppm and 0.5 ppm, respectively.

Tim J. Evans, DVM, MS, PhD, DACT, DABVT

MYCOTOXIN SCREEN

SPECIMEN #	AFLATOXIN	OCHRATOXIN	ZEARALENONE	VOMITOXIN
FEED-ADS-07	None Detected	None Detected	None Detected	None Detected
FEED-ADS-09	None Detected	None Detected	None Detected	None Detected
FEED-ADS-11	None Detected	None Detected	None Detected	None Detected
FEED-ADS-13	None Detected	None Detected	None Detected	None Detected
FEED-ADS-15	None Detected	None Detected	None Detected	None Detected
FEED-ADS-17	None Detected	None Detected	None Detected	None Detected

Report Date
04/07/2005

UNIVERSITY OF MISSOURI
VET MED DIAGNOSTIC LAB
P.O. BOX 6023

Page 2 of 2

COLUMBIA, MO 65205
Phone #: 573-882-6811 Fax #: 573-882-1411

Added Report

Accession Number: 05-04276

TOXICOLOGY RESULTS

SPECIMEN #	AFLATOXIN	OCHRATOXIN	ZEARALENONE	VOMITOXIN
FEED-ADS-19	None Detected	None Detected	None Detected	None Detected
FEED-ADS-21	None Detected	None Detected	None Detected	None Detected
FEED-ADS-23	None Detected	None Detected	None Detected	None Detected

PHYTOESTROGEN

SPECIMEN #	GENESTEIN	GLYCITEIN	DAIDZEIN
Feed ADS-07	185 ppm	10 ppm	110 ppm
Feed ADS-09	540 ppm	35 ppm	380 ppm
Feed ADS-11	145 ppm	25 ppm	125 ppm
Feed ADS-13	490 ppm	55 ppm	360 ppm
Feed ADS-15	450 ppm	60 ppm	340 ppm
feed ADS-17	140 ppm	15 ppm	100 ppm
Feed ADS-19	360 ppm	35 ppm	270 ppm
Feed ADS-21	420 ppm	50 ppm	310 ppm
Feed ADS-23	490 ppm	70 ppm	400 ppm

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 05-04276
 ANALYSIS Mycotoxin Screen
 CHEMIST Dr George Rottinghaus

Page 1

	SAMPLE Feed	Amt	mls used	ul spotted	aflatoxin	vomitoxin	zearalenone	ochratoxin
C18	ADS-07	50.0g	5/100	10/100	N/D	—	N/D	N/D
SL6		—	10/100	10/100	—	N/D	—	—
C18	-09	50.0	5/100	10/100	N/D	—	N/D	N/D
SL6		—	10/100	10/100	—	N/D	—	—
C18	-11	50.0	5/100	10/100	N/D	—	N/D	N/D
SL6		—	10/100	10/100	—	N/D	—	—
C18	-13	50.0	5/100	10/100	N/D	—	N/D	N/D
SL6		—	10/100	10/100	—	N/D	—	—
C18	-15	50.0	5/100	10/100	N/D	—	N/D	N/D
SL6		—	10/100	10/100	—	N/D	—	—
C18	-17	50.0	5/100	10/100	N/D	—	N/D	N/D
SL6		—	10/100	10/100	—	N/D	—	—
C18	-19	50.0	5/100	10/100	N/D	—	N/D	N/D
SL6		—	10/100	10/100	—	N/D	—	—

COMMENTS: See _____ for TLC Standards and Spike

1. Spiked with 100 ul each: 25 ppm zearalenone, 2.5 ppm ochratoxin A, 0.5 ppm aflatoxin B₁
2. Spiked with 100 ul 25 ppm vomitoxin

EXAMINED BY Charles Costner
 DATE 3/8/05

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 05-04276
 ANALYSIS Mycotoxin Screen
 CHEMIST Dr George Rottinghaus

Page 2

	SAMPLE	Amt	mls used	ul spotted	aflatoxin	vomitoxin	zearalenone	ochratoxin
C18	ADS-21	50.0g	3/100	10/100	N/D	—	N/D	N/D
SG		—	10/100	10/100	—	N/D	—	—
C18	-23	50.0g	5/100	10/100	N/D	—	N/D	N/D
SG		—	10/100	10/100	—	N/D	—	—
C18	Spl	50.0g	5/100	10/100	.45	—	.24	.34
SG	Spl	—	10/100	10/100	—	.40	—	—
	Standards	—	—	10	.45	.40	.24	.34

COMMENTS: See _____ for TLC Standards and Spike

1. Spiked with 100 ul each: 25 ppm zearalenone, 2.5 ppm ochratoxin A, 0.5 ppm aflatoxin B₁
2. Spiked with 100 ul 25 ppm vomitoxin

EXAMINED BY Charles Coatsley
 DATE 3/8/2005

#26-05

Sample #	Sample name	Daidzin		Daidzein		Glycitin	
		HPLC conc	ppm in samples	Aglycone in samples	HPLC conc	ppm in samples	
1	✓ ADS-7	4.57	182.80	✓	0.42	16.80	
2	✓ ADS-9	15.61	624.40	✓	1.29	51.60	
3	✓ ADS-11	5.04	201.60	✓	1.02	40.80	
4	✓ ADS-13	14.71	588.40	✓	2.11	84.40	
5	✓ ADS-15	13.97	558.80	✓	2.37	94.80	
6	✓ ADS-17	4.02	160.80	✓	0.55	22.00	
7	✓ ADS-19	11.07	442.80	✓	1.35	54.00	
8	✓ ADS-21	12.62	504.80	✓	1.98	79.20	
9	ADS-23	16.26	650.40	✓	2.78	111.20	
10	Soy control	42.37	1694.80	103.479	6.39	255.60	
Control Mean ± SD				1127±133			

Glycitein		Genistein		Genistein	
Aglycone in samples	HPLC conc	ppm in samples	Aglycone in samples	Genistein	
✓ 10.70	6.58	263.20	✓ 15.40	1327.59	
✓ 32.86	21.61	864.40	✓ 15.40	1306±135	
✓ 25.98	5.77	230.80	✓ 17.44		
✓ 53.75	19.66	786.40	✓ 22.16		
✓ 60.37	17.98	719.20	✓ 24.49		
✓ 17.01	5.51	220.40	✓ 13.79		
✓ 37.39	14.43	577.20	✓ 16.52		
✓ 50.74	16.76	670.40	✓ 21.11		
✓ 70.54	19.57	782.80	✓ 22.37		
162.77	53.09	2123.60		1327.59	
180±30				1306±135	

BENCH SHEET
 TOXICOLOGY LABORATORY
 VET MED DIAG LAB
 COLUMBIA, MISSOURI 65211
 PHONE: (573) 882-6811

CASE NUMBER 26-05 (Battello)

ANALYSIS Plutonium

CHEMIST Dr. George Rottinghaus

3/1/05

SAMPLE	Sample wt (g)	80% meth (ml)	Tubet Soln + Sample wt (ml)			
1. ADS-07	0.5	20	27.49			
2. ADS-09	0.5	20	26.58			
3. ADS-11	0.5	20	26.89			
4. ADS-13	0.5	20	26.14			
5. ADS-15	0.5	20	27.36			
6. ADS-17	0.5	20	27.90			
7. ADS-19	0.5	20	26.55			
8. ADS-21	0.5	20	27.82			
9. ADS-23	0.5	20	27.75			
10. Solv control	0.5	20	27.37			

COMMENTS: See _____ for Standards, Spike and Graph.

- Atomic Absorption
- Spec Ion electrode
- Gas Liquid Chrom
- Thin Layer Chrom
- HPLC
- Other

EXAMINED BY _____

DATE _____

D-7000 HPLC System Manager Report

Analyzed: 03/15/05 06:17 PM

Reported: 04/15/05 02:47 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone 05

Vial Number: 1

Sample Name: Dad100/Gly20/Gen100

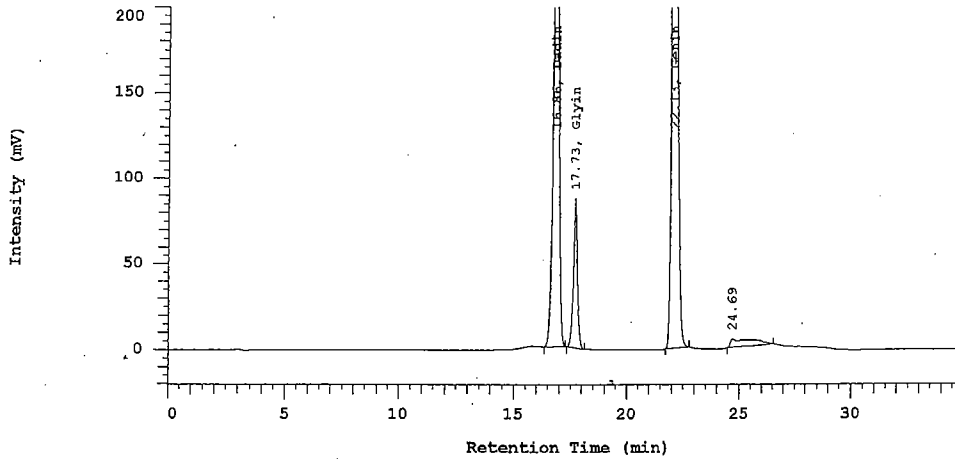
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	16.86	5754024	Dadin	100.000	4000.00
2	17.73	1132667	Glyin	20.0000	800.000
3	22.13	8041576	Genin	100.000	4000.00
		14928267		220.000	8800.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/15/05 06:53 PM

Reported: 04/15/05 02:47 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 2

Sample Name: Dad10/Gly2/Gen10

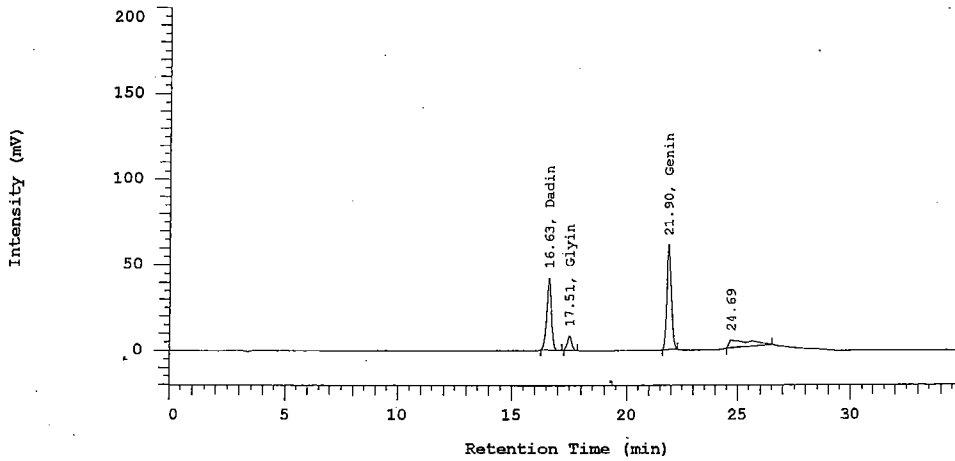
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

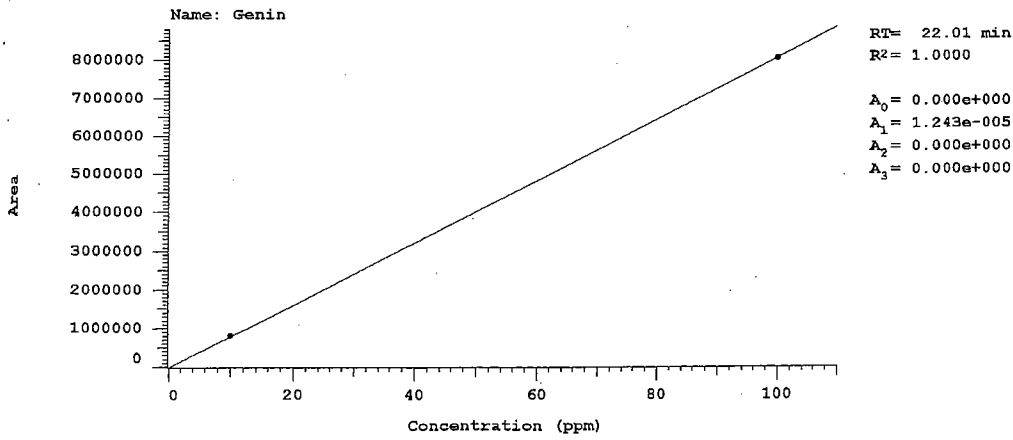
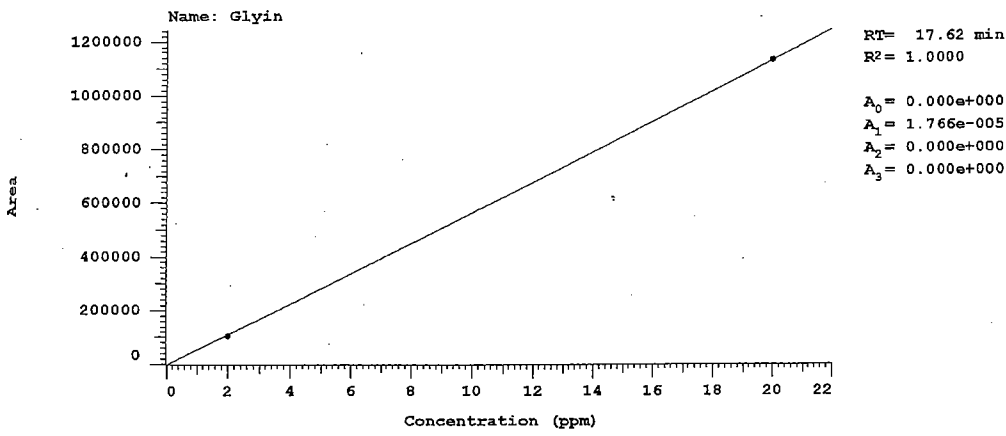
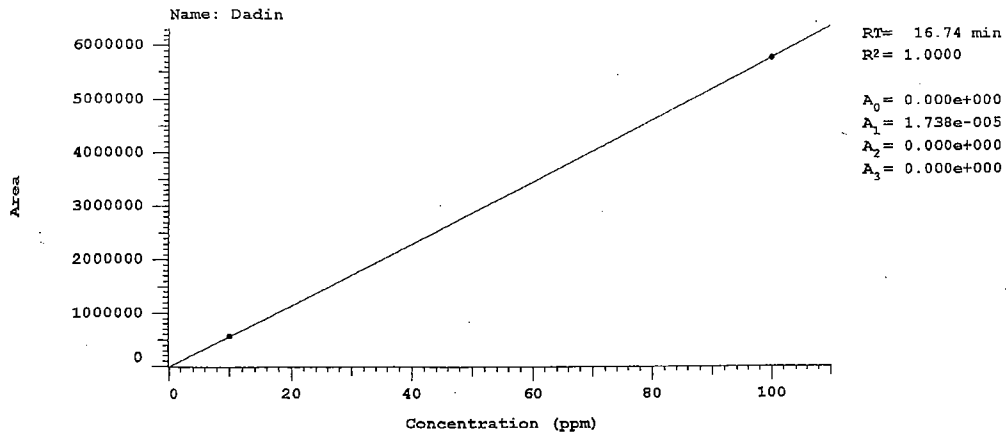
Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	16.63	577373	Dadin	10.0000	400.000
2	17.51	108741	Glyin	2.00000	80.0000
3	21.90	829186	Genin	10.0000	400.000
		1515300		22.0000	880.000

Peak rejection level: 0

Channel 1 Calibration Curves and Results



D-7000 HPLC System Manager Report

Analyzed: 03/15/05 07:29 PM

Reported: 04/15/05 02:47 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 3

Sample Name: ADS-7

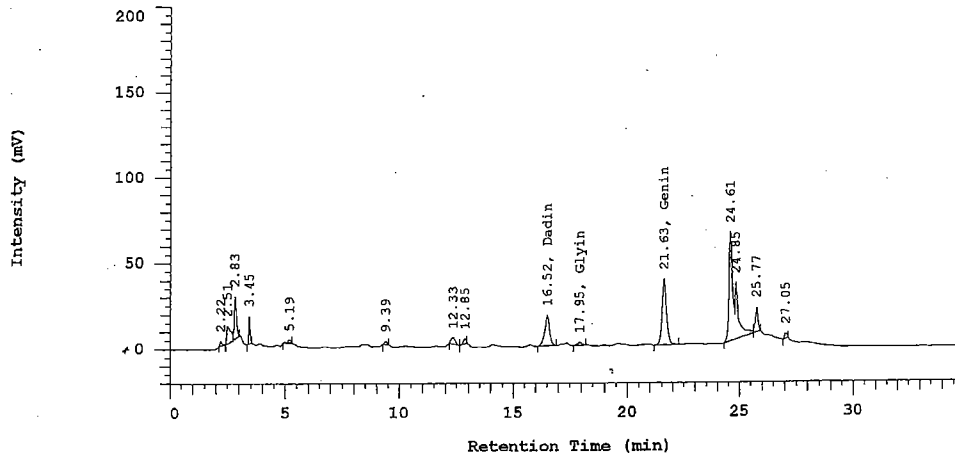
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
9	16.52	262795	Dadin	4.56700	182.680
10	17.95	23611	Glyin	0.417071	16.6829
11	21.63	529414	Genin	6.58138	263.255
		815820		11.5655	462.618

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/15/05 08:05 PM

Reported: 04/15/05 02:47 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 4

Sample Name: ADS-9

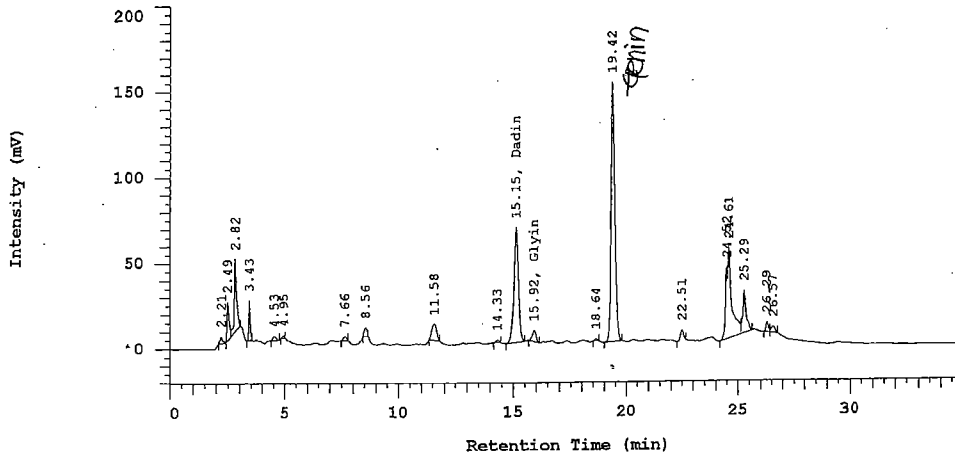
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
11	15.15	900558	Dadin	15.6504	626.016
12	15.92	73608	Glyin	1.30023	52.0092
14	19.42	974166	Genin	16.9506	678.025

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/16/05 01:29 AM

Reported: 04/15/05 02:49 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 1

Sample Name: Dad100/Gly20/Gen100

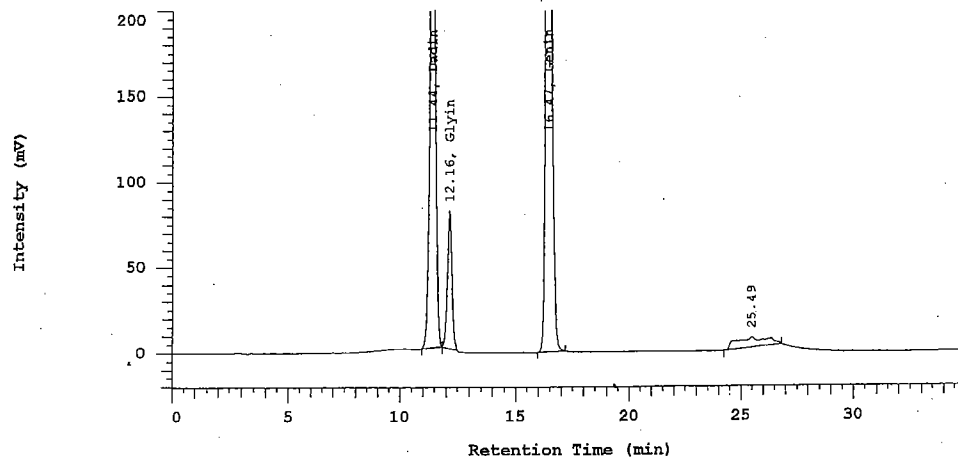
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	11.44	5540864	Dadin	100.000	4000.00
2	12.16	1045173	Glyin	20.0000	800.000
3	16.47	8143456	Genin	100.000	4000.00
		14729493		220.000	8800.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/16/05 02:05 AM

Reported: 04/15/05 02:49 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 2

Sample Name: Dad10/Gly2/Gen10

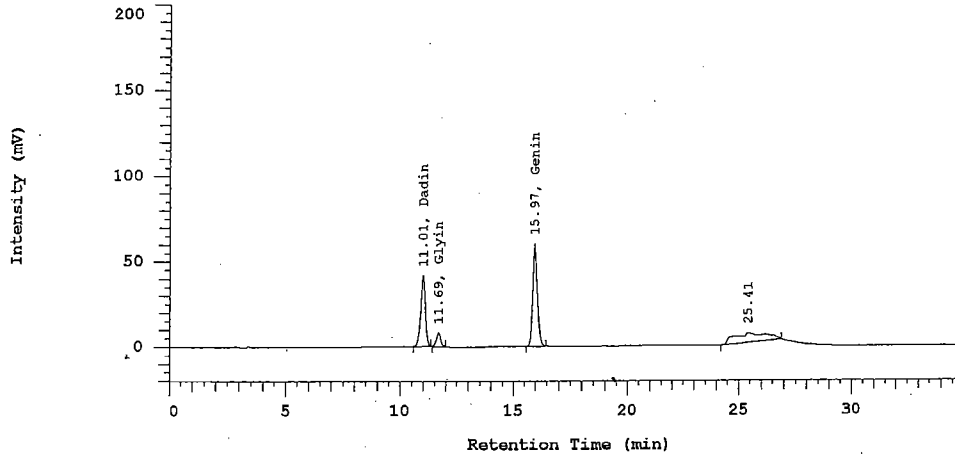
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

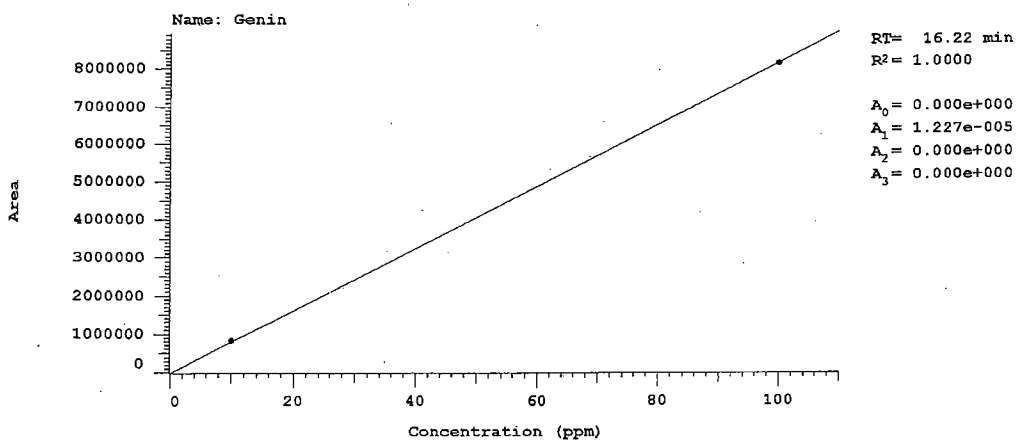
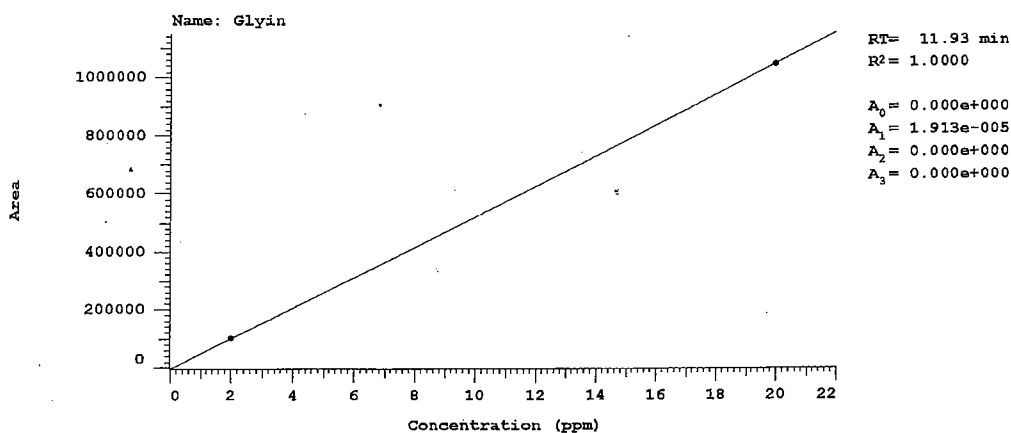
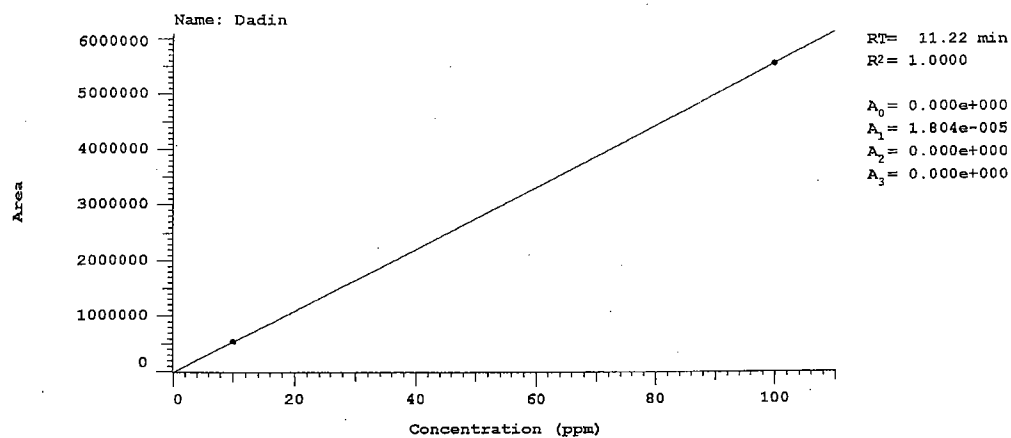
Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
1	11.01	563858	Dadin	10.0000	400.000
2	11.69	105400	Glyin	2.00000	80.0000
3	15.97	849712	Genin	10.0000	400.000
		1518970		22.0000	880.000

Peak rejection level: 0

Channel 1 Calibration Curves and Results



D-7000 HPLC System Manager Report

Analyzed: 03/15/05 08:41 PM

Reported: 04/15/05 02:49 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 5

Sample Name: ADS-11

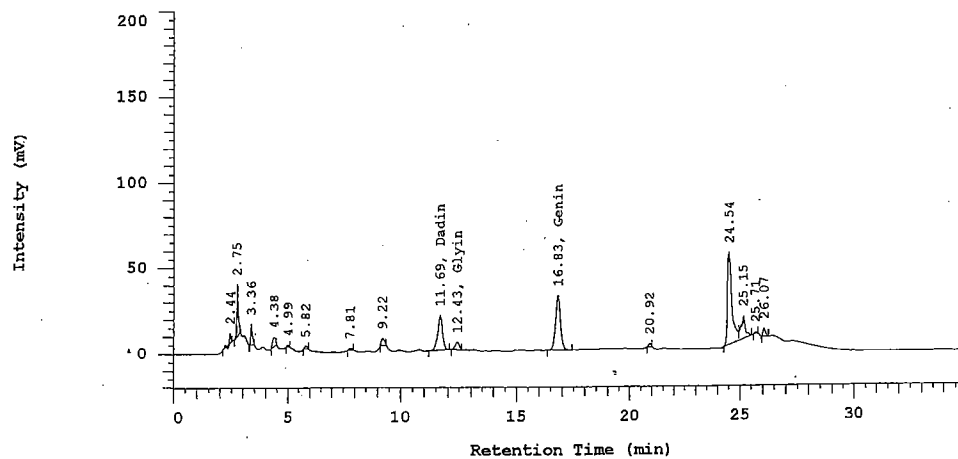
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
9	11.69	279377	Dadin	5.04123	201.649
10	12.43	53383	Glyin	1.02144	40.8576
11	16.83	469730	Genin	5.76560	230.624
		802490		11.8283	473.131

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/15/05 09:17 PM

Reported: 04/15/05 02:49 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 6

Sample Name: ADS-13

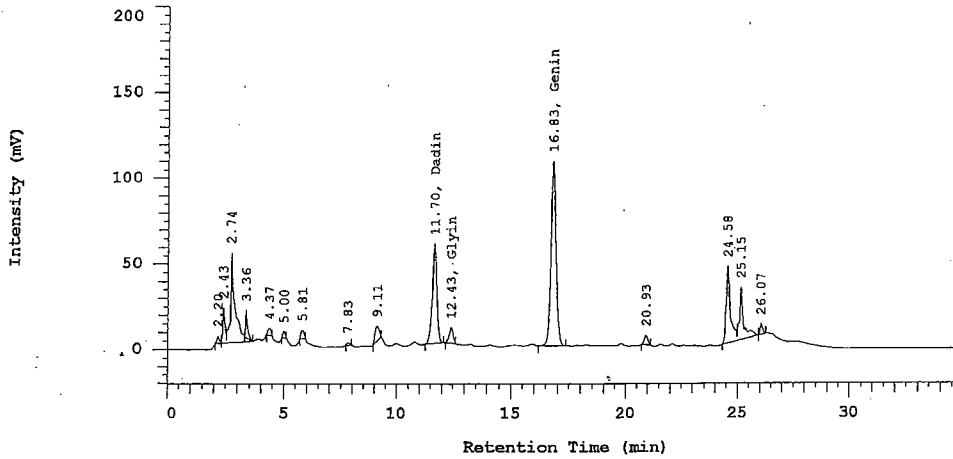
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
10	11.70	814895	Dadin	14.7044	588.176
11	12.43	110422	Glyin	2.11281	84.5124
12	16.83	1602147	Genin	19.6652	786.609
		2527464		36.4824	1459.30

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/15/05 09:53 PM

Reported: 04/15/05 02:49 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series: 0106

Application: Soy isoflavone_05

Vial Number: 7

Sample Name: ADS-15

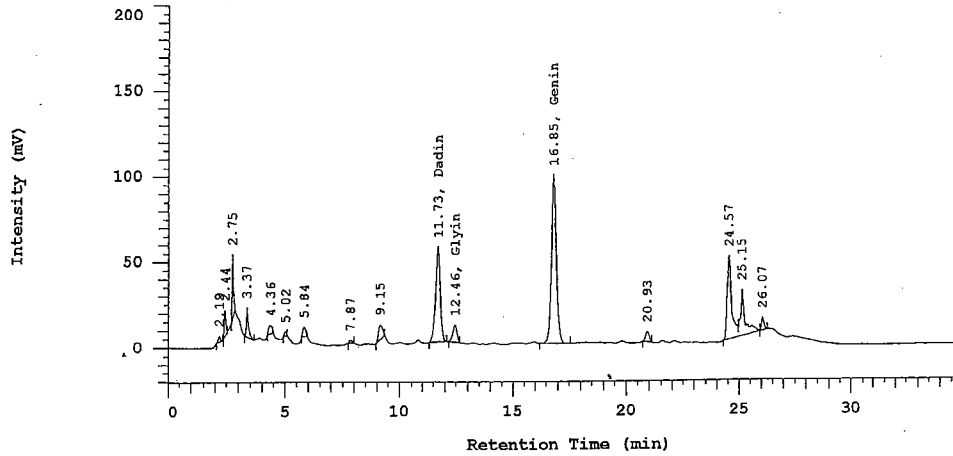
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
10	11.73	773546	Dadin	13.9583	558.331
11	12.46	123934	Glyin	2.37136	94.8545
12	16.85	1464005	Genin	17.9696	718.785
				34.2993	1371.97

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/15/05 10:29 PM

Reported: 04/15/05 02:49 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 8

Sample Name: ADS-17

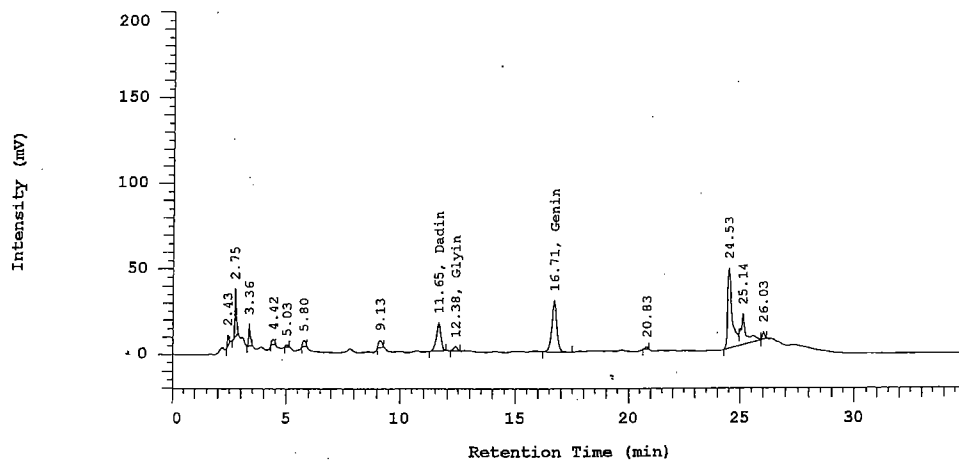
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	11.65	222687	Dadin	4.01829	160.731
9	12.38	28522	Glyin	0.545747	21.8299
10	16.71	447836	Genin	5.49688	219.875
		699045		10.0609	402.437

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/15/05 11:05 PM

Reported: 04/15/05 02:49 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 9

Sample Name: ADS-19

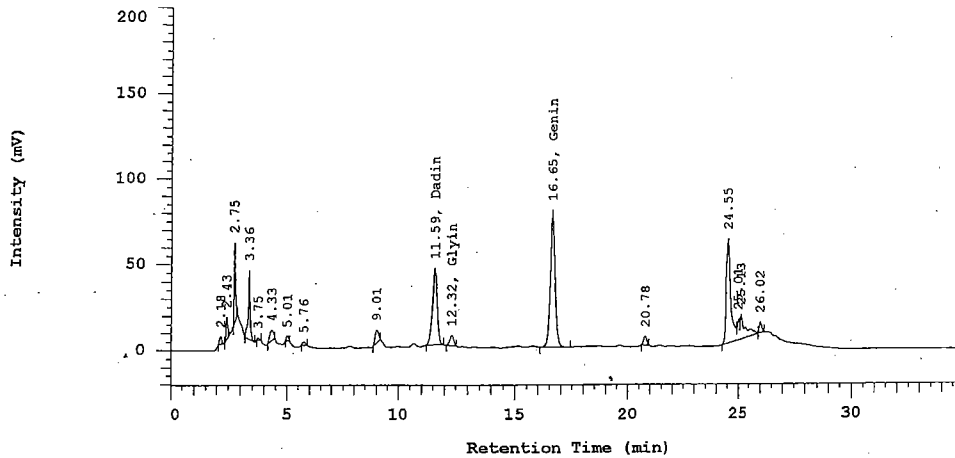
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
10	11.59	613710	Dadin	11.0741	442.964
11	12.32	70701	Glyin	1.35279	54.1116
12	16.65	1168897	Genin	14.3474	573.896
		1853308		26.7743	1070.97

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/15/05 11:41 PM

Reported: 04/15/05 02:49 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 10

Sample Name: ADS-21

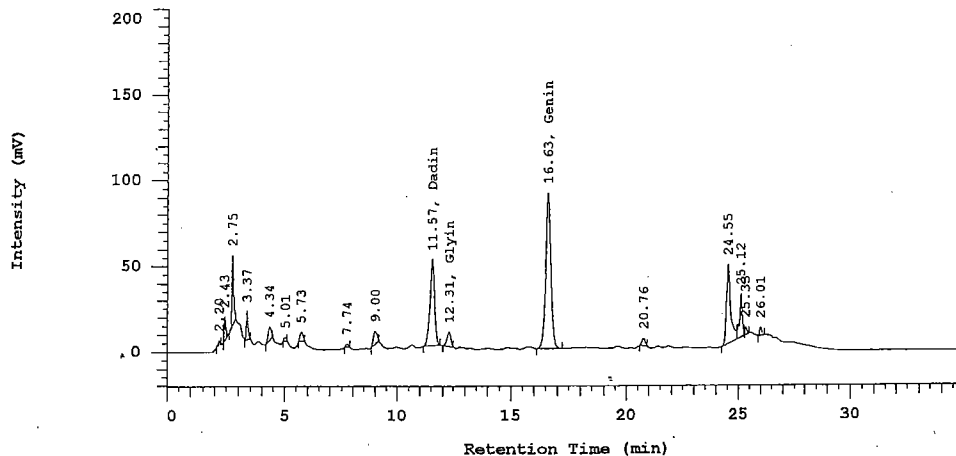
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
10	11.57	699234	Dadin	12.6174	504.694
11	12.31	103301	Glyin	1.97657	79.0628
12	16.63	1364472	Genin	16.7479	669.917
				31.3419	1253.67

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 03/16/05 12:17 AM

Reported: 04/15/05 02:49 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0106\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 2

Series:0106

Application: Soy isoflavone_05

Vial Number: 11

Sample Name: ADS-23

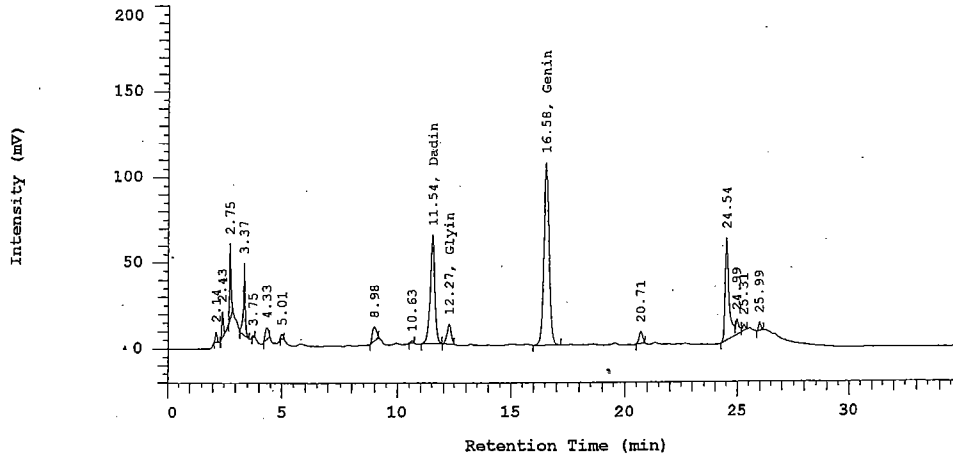
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
10	11.54	901664	Dadin	16.2701	650.804
11	12.27	145916	Glyin	2.79197	111.679
12	16.58	1590468	Genin	19.5219	780.875
		2638048		38.5839	1543.36

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/14/05 01:39 PM

Reported: 04/15/05 03:02 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0103\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0103

Application: Soy isoflavone_05

Vial Number: 1

Sample Name: Dad100/Gly20/Gen100

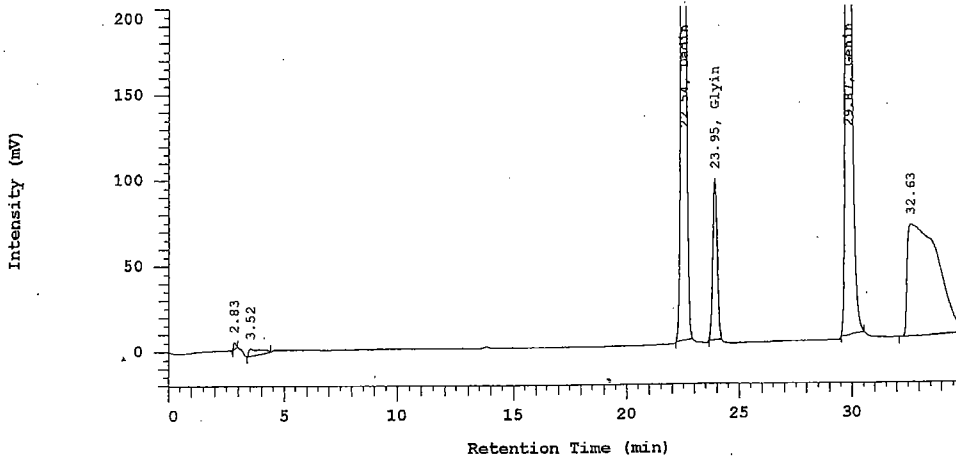
Vial Type: STD1

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
3	22.54	6561686	Dadin	100.000	4000.00
4	23.95	1238197	Glyin	20.0000	800.000
5	29.87	8690185	Genin	100.000	4000.00
		16490068		220.000	8800.00

Peak rejection level: 0

D-7000 HPLC System Manager Report

Analyzed: 04/14/05 02:15 PM

Reported: 04/15/05 03:02 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0103\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0103

Application: Soy isoflavone_05

Vial Number: 2

Sample Name: Dad10/Gly2/Gen10

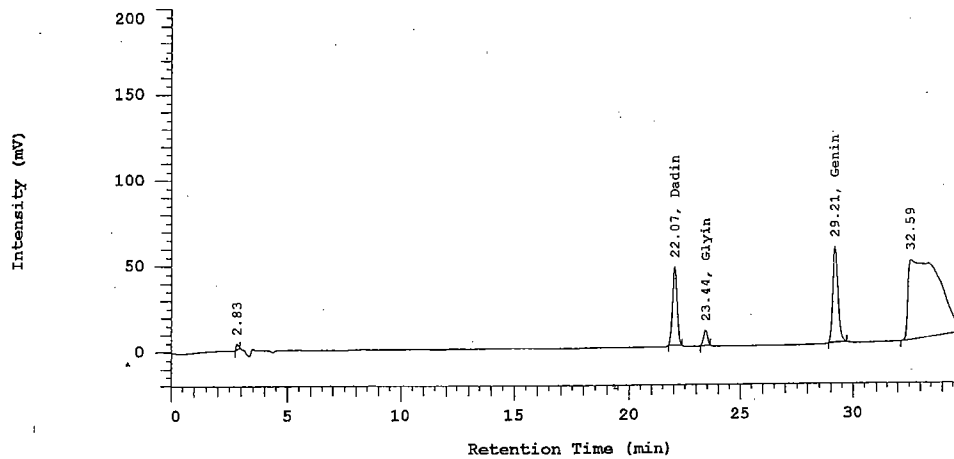
Vial Type: STD2

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

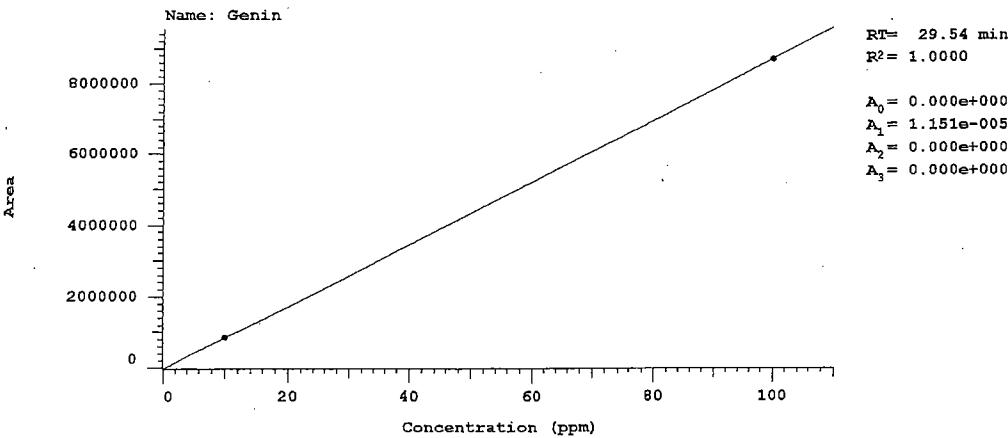
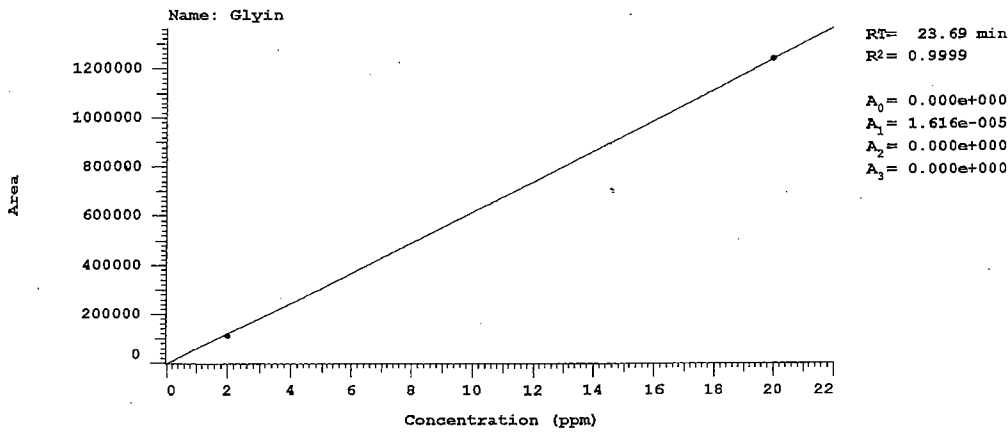
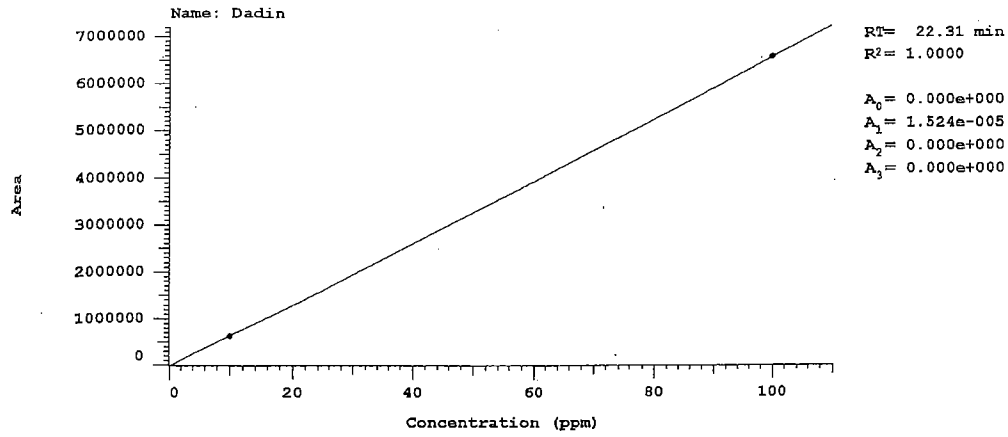
Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
2	22.07	636932	Dadin	10.0000	400.000
3	23.44	114596	Glyin	2.00000	80.0000
4	29.21	876475	Genin	10.0000	400.000
		1628003		22.0000	880.000

Peak rejection level: 0

Channel 1 Calibration Curves and Results



D-7000 HPLC System Manager Report

Analyzed: 04/14/05 10:03 PM

Reported: 04/15/05 03:02 PM

Data Path: C:\Win32App\HSM\Soy isoflavone_05\DATA\0103\

Processing Method: Soy phytoestrogens-YC

System(acquisition): Sys 1

Series:0103

Application: Soy isoflavone_05

Vial Number: 13

Sample Name: Soy control-1

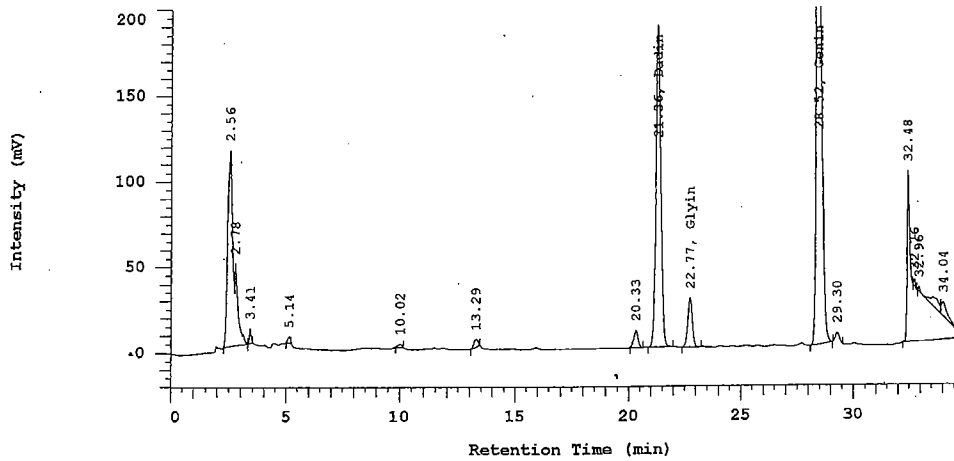
Vial Type: UNK

Injection from this vial: 1 of 1

Volume: 20.0 ul

Sample Description:

Chrom Type: HPLC Channel : 1



No.	RT	Area	Name	Conc 1 ppm	Conc 2 ppm
8	21.36	2779102	Dadin	42.3654	1694.62
9	22.77	395102	Glyin	6.38625	255.450
10	28.52	4614250	Genin	53.0927	2123.71
		7788454		101.844	4073.78

Peak rejection level: 0