



INDOFINE Chemical Company, Inc.

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

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

website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

CERTIFICATE OF ANALYSIS

Catalog Number: 020105S

Product: GINSENOSE Rb1 with HPLC

Cas Number: [41753-43-9]

Lot Number: 1411518

Chemical Formula: $C_{54}H_{92}O_{23}$

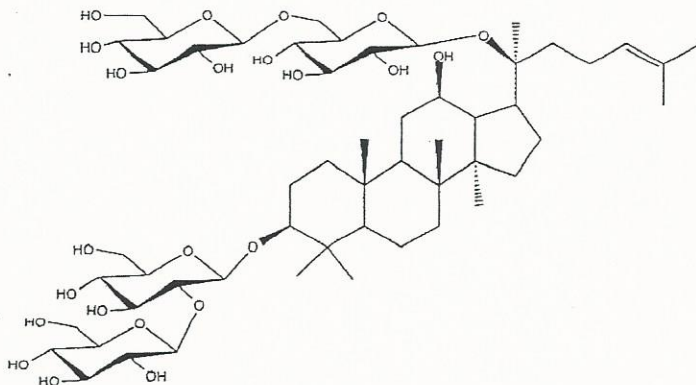
Molecular Weight: 1109.3

Appearance: White powder

Loss on drying: 0.8%

Storage: This product is stable at ambient temperature for several weeks. However, optimum long-term storage may require lower temperature ($<-18^{\circ}\text{C}$). Place in a desiccator under vacuum before use. Protect from light.

Purity(HPLC): 99.83%





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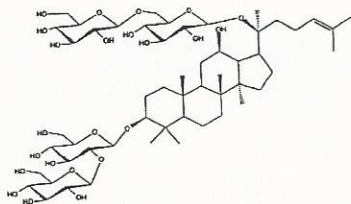
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HPLC ANALYSIS



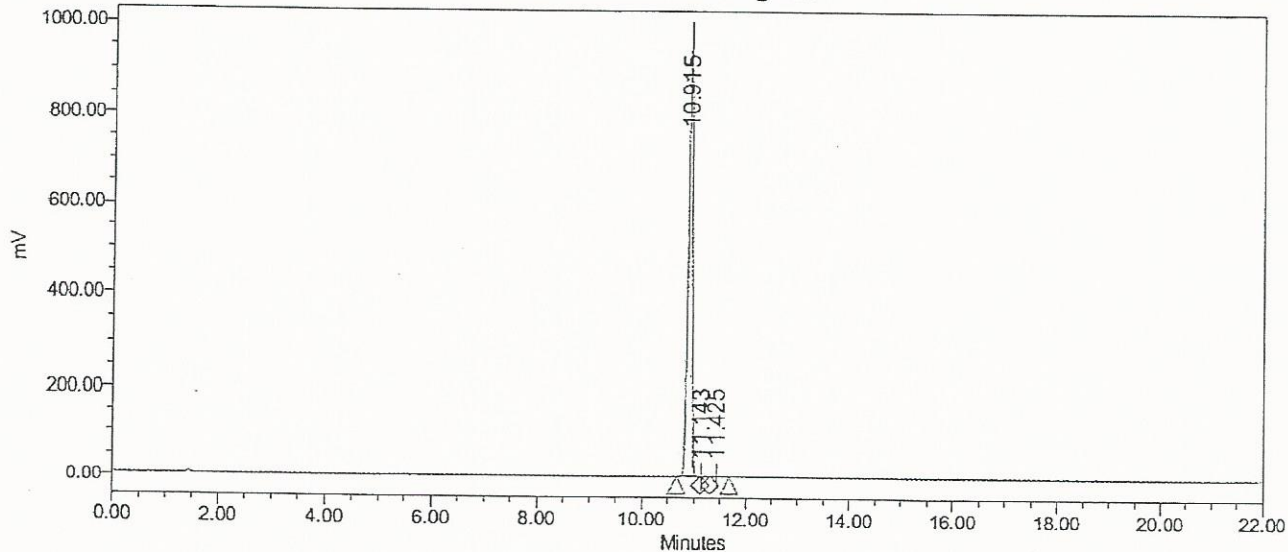
Catalog No.: 020105S
Product Name: Ginsenoside Rb1
Lot No.: 1411518

SAMPLE INFORMATION

Sample Name: Ginsenoside Rb1
Sample Type: Unknown
Vial: 1:B,2
Injection #: 1
Injection Volume: 10.00 ul
Run Time: 22.0 Minutes

Sample Set Name:
Acq. Method Set: Ginsenoside Rb1
Processing Method: Samples
Channel Name: SATIN
Proc. Chnl. Descr.:

Auto-Scaled Chromatogram



Peak Results

	Name	RT	Area	% Area	USP Plate Count	USP Resolution
1		10.915	5351464	99.83	86289.45	
2		11.143	4225	0.08		1.52
3		11.425	4966	0.09	84681.89	



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CERTIFICATE OF ANALYSIS

Catalog Number: 020104S

Product Name: GINSENOSE Rb2 with HPLC

Cas Number: [11021-13-9]

Lot Number: 1411519

Chemical Formula: $C_{53}H_{90}O_{22}$

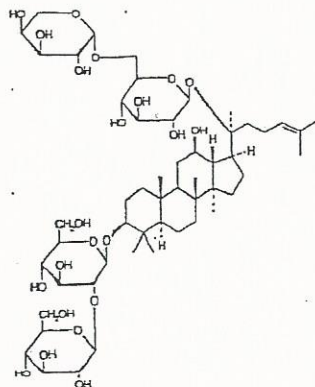
Molecular Weight: 1079.29

Appearance: White powder

Loss on drying: 1.3%

Storage: This product is stable at ambient temperature for several weeks. However, optimum long-term storage may require lower temperature ($<-18^{\circ}\text{C}$). Place in a desiccator under vacuum before use. Protect from light.

Purity(HPLC): 99.94%





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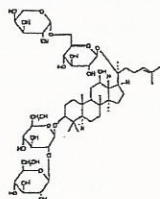
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HPLC ANALYSIS



Catalog No.: 020104S

Product Name: Ginsenoside Rb2

Lot No.: 1411519

SAMPLE INFORMATION

Sample Name: Ginsenoside Rb2

Sample Type: Unknown

Vial: 1:A.5

Injection #: 1

Injection Volume: 15.00 ul

Run Time: 20.0 Minutes

Sample Set Name:

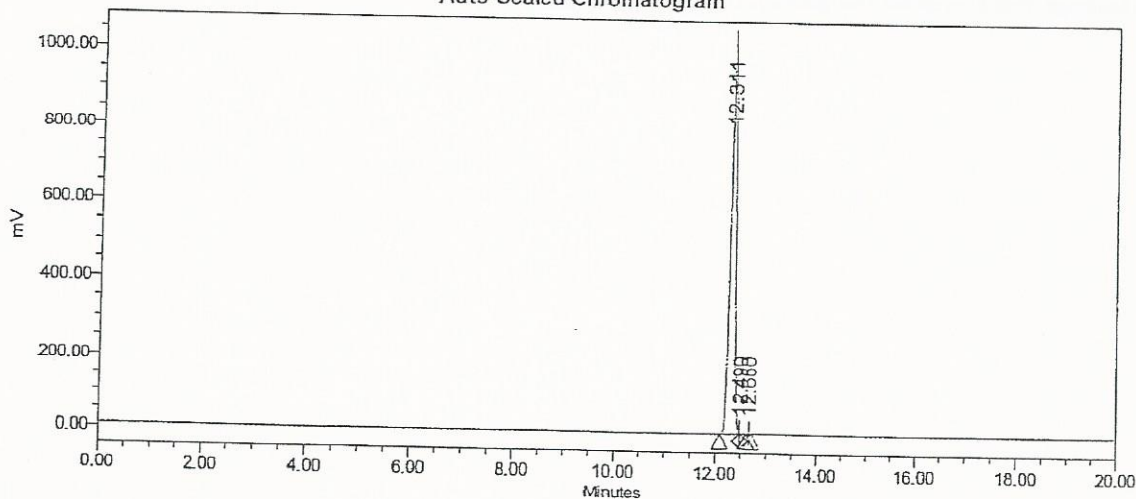
Acq. Method Set: Ginsenoside Rb2

Processing Method: Samples 3

Channel Name: SATIN

Proc. Chnl. Descr.:

Auto-Scaled Chromatogram



Peak Results

	Name	RT	Area	% Area	USP Plate Count	USP Resolution
1		12.311	7361446	99.94	68484.24	
2		12.490	2964	0.04		0.93
3		12.660	1412	0.02	550758.59	1.31



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CERTIFICATE OF ANALYSIS

Catalog Number: 020106S

Product Name: GINSENOSE R_c with HPLC

Chemical Family: Saponins

Cas Number: [11021-14-0]

Lot Number: 1411520

Chemical Formula: C₅₃H₉₀O₂₂

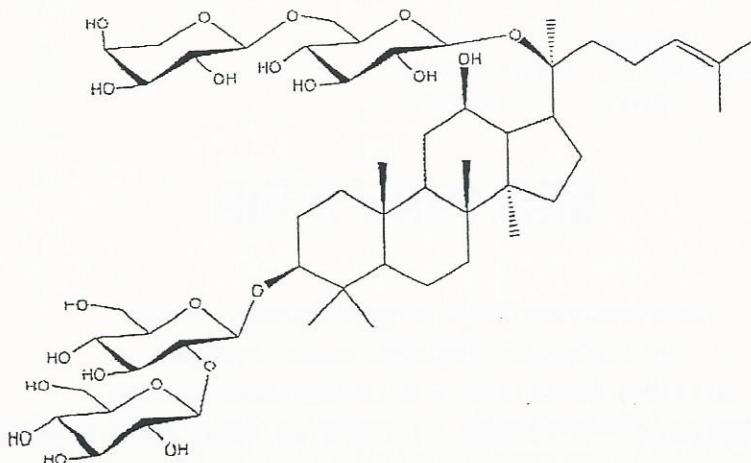
Molecular Weight: 1079.29

Appearance: White powder

Loss on drying: 0.6%

Storage: This product is stable at ambient temperature for several weeks. However, optimum long-term storage may require lower temperature (<-18°C). Place in a desiccator under vacuum before use. Protect from light.

Purity(HPLC): 99.90%





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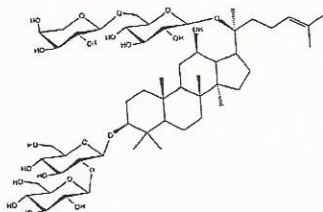
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HPLC ANALYSIS



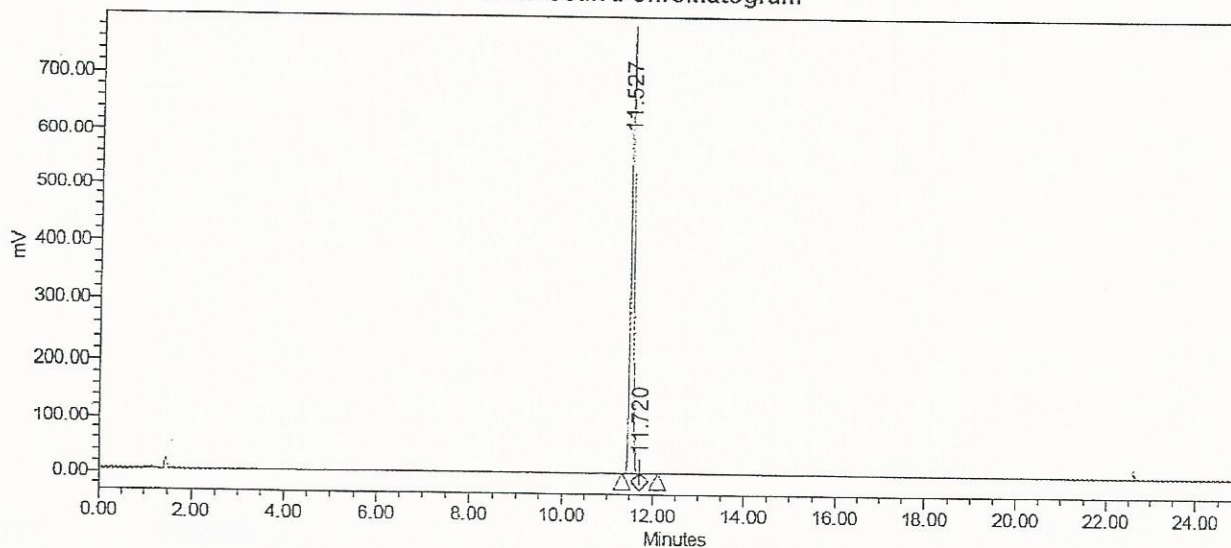
Catalog No.: 020106S
Product Name: Ginsenoside Rc
Lot No.: 1411520

SAMPLE INFORMATION

Sample Name: Ginsenoside Rc
Sample Type: Unknown
Vial: 1:D,8
Injection #: 1
Injection Volume: 10.00 ul
Run Time: 25.0 Minutes

Acquired By: System
Sample Set Name:
Acq. Method Set: Ginsenoside Rc
Processing Method: Samples
Channel Name: SATIN
Proc. Chnl. Descr.:

Auto-Scaled Chromatogram



Peak Results

	Name	RT	Area	% Area	USP Plate Count	USP Resolution
1		11.527	3747862	99.90	121570.84	
2		11.720	3839	0.10		1.44



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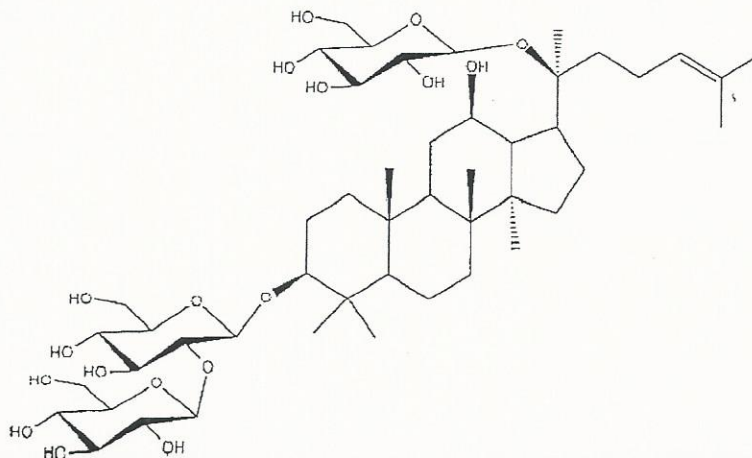
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CERTIFICATE OF ANALYSIS

<u>Catalog Number:</u>	020102S
<u>Product Name:</u>	GINSENOSIDE Rd with HPLC
<u>Chemical Family:</u>	Saponins
<u>Cas Number:</u>	[52705-93-8]
<u>Lot Number:</u>	1411521
<u>Chemical Formula:</u>	$C_{48}H_{82}O_{18}$
<u>Molecular Weight:</u>	947.17
<u>Appearance:</u>	Off-White powder
<u>Loss on drying:</u>	0.8%
<u>Storage:</u>	This product is stable at ambient temperature for several weeks. However, optimum long-term storage may require lower temperature ($<-18^{\circ}\text{C}$). Place in a desiccator under vacuum before use. Protect from light.
<u>Purity(HPLC):</u>	99.20%





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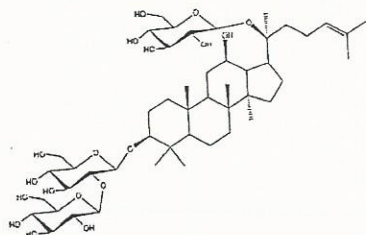
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HPLC ANALYSIS



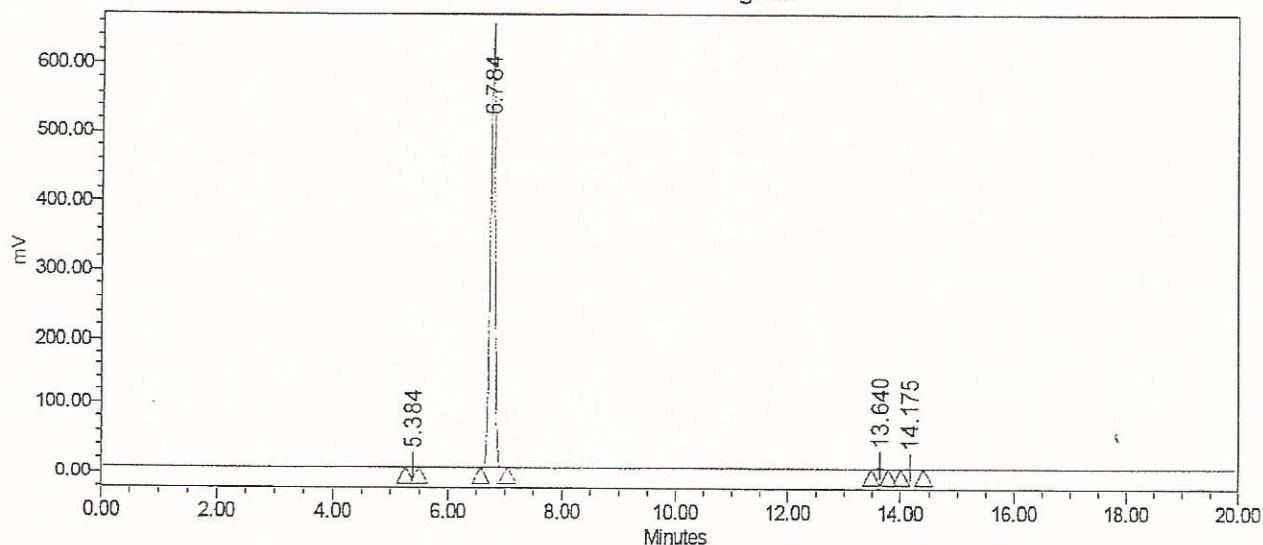
Catalog No.: 020102S
Product Name: Ginsenoside Rd
Lot No.: 1411521

SAMPLE INFORMATION

Sample Name: Ginsenoside Rd
Sample Type: Unknown
Vial: 1:C,1
Injection #: 1
Injection Volume: 10.00 ul
Run Time: 20.0 Minutes

Sample Set Name:
Acq. Method Set: Ginsenoside Rd
Processing Method: Samples
Channel Name: SATIN
Proc. Chnl. Descr.:

Auto-Scaled Chromatogram



Peak Results

	Name	RT	Area	% Area	USP Plate Count	USP Resolution
1		5.384	1991	0.05	38274.94	
2		6.784	3614286	99.20	31370.80	10.07
3		13.640	20577	0.56	121713.01	44.34
4		14.175	6497	0.18	73992.64	2.88



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CERTIFICATE OF ANALYSIS

Catalog Number: 020103S

Product Name: **GINSENOSIDE Re with HPLC**

Chemical Family: Saponins

Cas Number: [52286-59-6]

Lot Number: 1411522

Chemical Formula: $C_{48}H_{82}O_{18}$

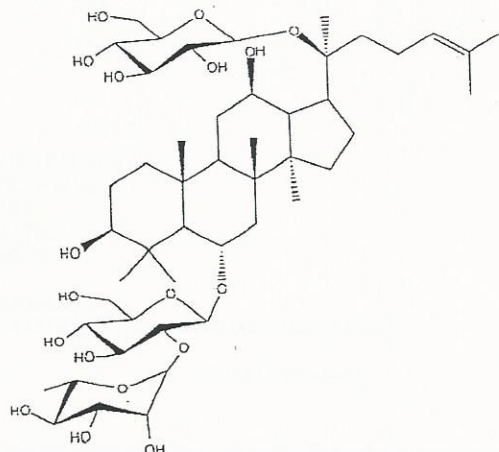
Molecular Weight: 947.17

Appearance: Off-white powder

Loss on drying: 1.0%

Storage: This product is stable at ambient temperature for several weeks. However, optimum long-term storage may require lower temperature ($<-18^{\circ}\text{C}$). Place in a desiccator under vacuum before use. Protect from light.

Purity(HPLC): 98.86%





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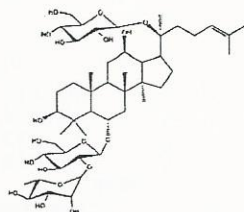
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HPLC ANALYSIS



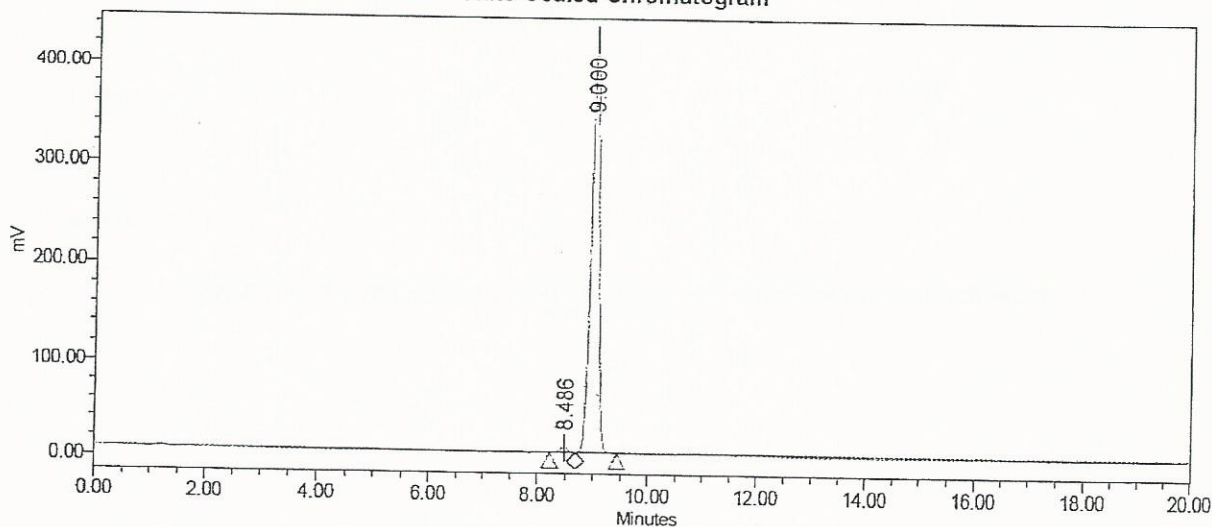
Catalog No.: 020103S
Product Name: Ginsenoside Re
Lot No.: 1411522

SAMPLE INFORMATION

Sample Name: Ginsenoside Re
Sample Type: Unknown
Vial: 1:A,1
Injection #: 1
Injection Volume: 10.00 ul
Run Time: 20.0 Minutes

Sample Set Name:
Acq. Method Set: Ginsenoside Re
Processing Method: Samples
Channel Name: SATIN
Proc. Chnl. Descr.:

Auto-Scaled Chromatogram



Peak Results

	Name	RT	Area	% Area	USP Plate Count	USP Resolution
1		8.486	48262	1.14	14249.30	
2		9.000	4203237	98.86	17608.22	1.82



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CERTIFICATE OF ANALYSIS

Catalog Number: 020101S

Product Name: GINSENOSE Rg1 with HPLC

Chemical Family: Saponins

Cas Number: [22427-39-0]

Lot Number: 1411523

Chemical Formula: $C_{42}H_{72}O_{14}$

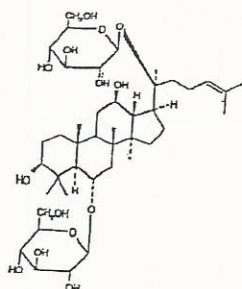
Molecular Weight: 801.02

Appearance: White powder

Loss on drying: 0.8%

Storage: This product is stable at ambient temperature for several weeks. However, optimum long-term storage may require lower temperature ($<-18^{\circ}\text{C}$). Place in a desiccator under vacuum before use. Protect from light.

Purity(HPLC): 99.14%





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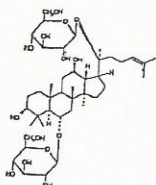
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HPLC ANALYSIS



Catalog No.: 020101S

Product Name: Ginsenoside Rg1

Lot No.: 1411523

SAMPLE INFORMATION

Sample Name: Ginsenoside Rg1

Sample Type: Unknown

Vial: 1:D,7

Injection #: 1

Injection Volume: 10 ul

Run Time: 22.0 Minutes

Sample Set Name:

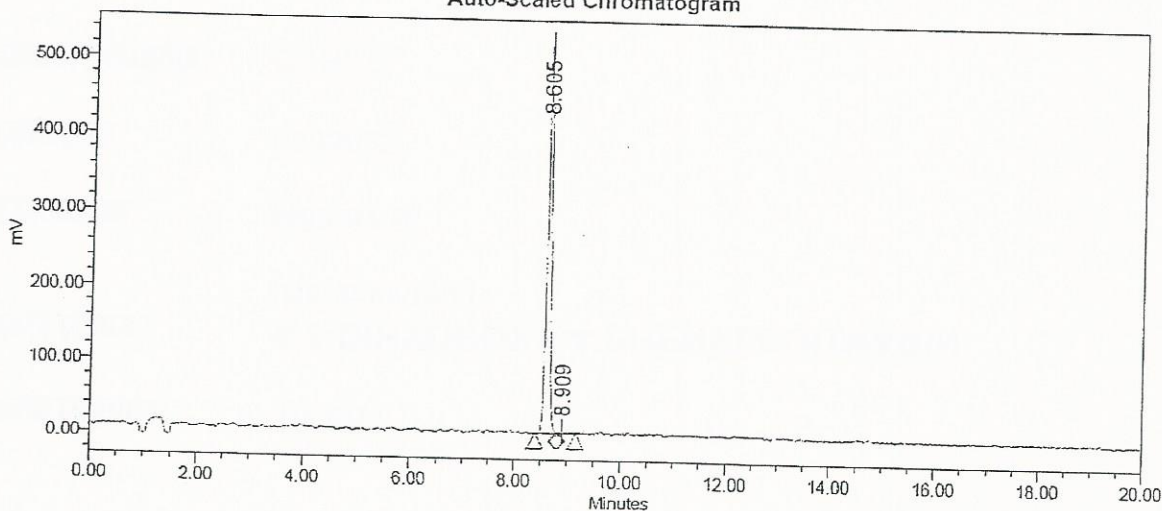
Acq. Method Set: Ginsenoside Rg1

Processing Method: Samples1

Channel Name: SATIN

Proc. Chnl. Descr.:

Auto-Scaled Chromatogram



Peak Results

	Name	RT	Area	% Area	USP Plate Count	USP Resolution
1		8.605	2797876	99.14	62518.75	
2		8.909	24405	0.86	26291.33	2.14