



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: GINSENOSIDE Rb1 with HPLC

Cas Number: [41753-43-9]

Lot Number: 1704794

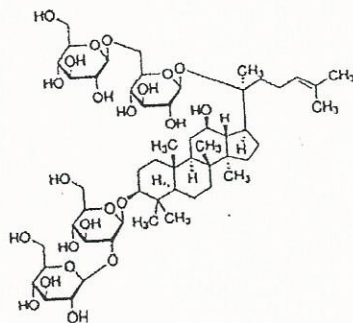
Chemical Formula: $C_{54}H_{92}O_{23}$

Molecular Weight: 1109.3

Appearance: White powder

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): 98.06%





INDOFINE Chemical Company, Inc.

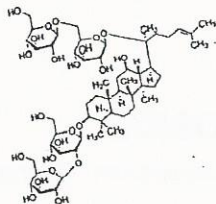
121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

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

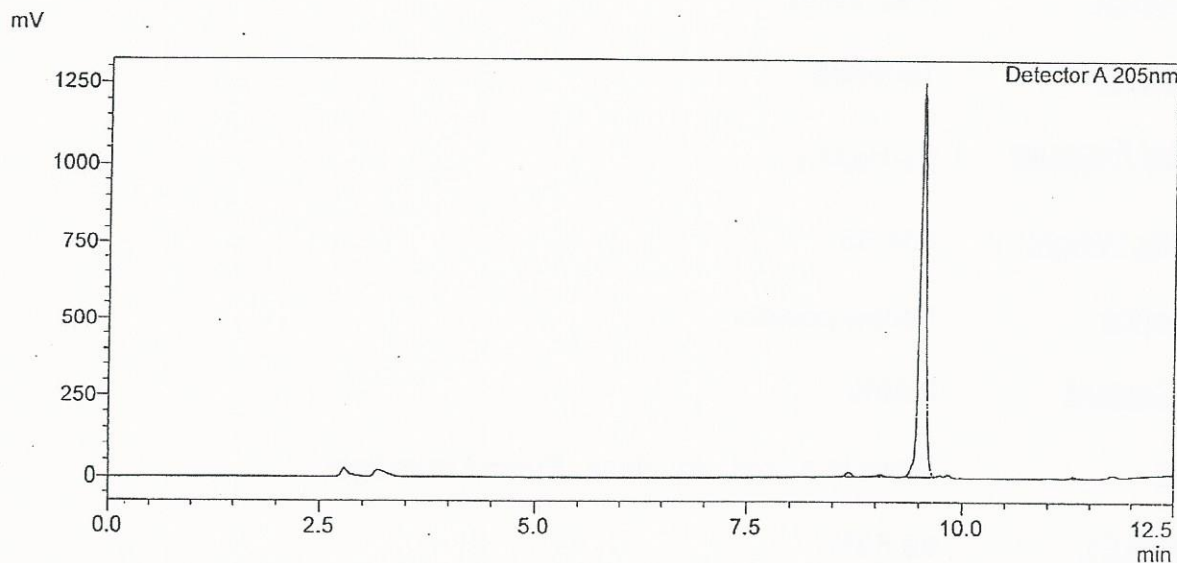
website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

HPLC ANALYSIS



Catalog No.: 020105S
Product Name: Ginsenoside Rb1
Lot No.: 1704794



<Peak Table>

Detector A 205nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Area%
1	8.677	53236	11432	0.841		0.841
2	9.057	35854	5622	0.566		0.566
3	9.533	6209893	1246495	98.061		98.061
4	11.306	33713	6760	0.532		0.532
Total		6332696	1270309			100.000

<Analysis condition>

InertSustain-C18 column (5 μ m, 4.6 $\times$ 250 mm)

5% $\rightarrow$ 100% Acetonitrile in 0.05% Phosphoric acid H₂O

over 10.0min followed by 100% Acetonitrile to 13 min

1.0 ml/min, 35°C



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: 020104S

Product Name: GINSENOSE Rb2 with HPLC

Cas Number: [11021-13-9]

Lot Number: 1704795

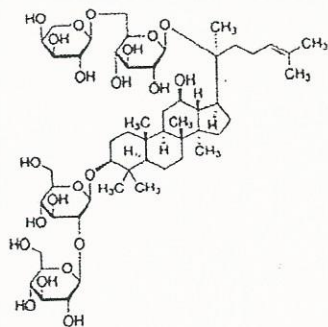
Chemical Formula: $C_{53}H_{90}O_{22}$

Molecular Weight: 1079.29

Appearance: White powder

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): 98.55%





INDOFINE Chemical Company, Inc.

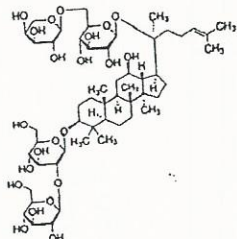
121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

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

website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

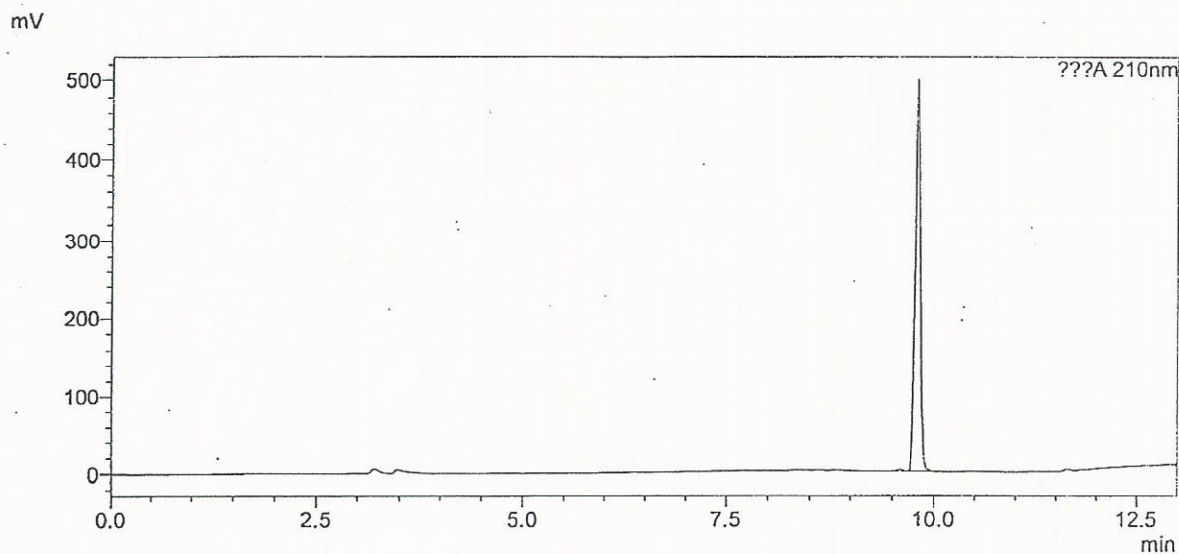
HPLC ANALYSIS



Catalog No.: 020104S

Product Name: Ginsenoside Rb2

Lot No.: 1704795



<Peak Table>

???A 210nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Area%
1	8.566	2779	482	0.123		0.123
2	8.802	8690	1269	0.384		0.384
3	9.606	9408	1872	0.416		0.416
4	9.795	2227384	498465	98.558		98.558
5	10.076	4067	1135	0.180		0.180
6	10.463	7656	900	0.339		0.339
Total		2259984	504123			100.000

<Analysis condition>

Wonda Cract ODS-2 column (5 μ m, 4.6 $\times$ 250 mm)
5% $\rightarrow$ 100% Acetonitrile in 0.05% Phosphoric acid H₂O
over 10.0min followed by 100% Acetonitrile to 13 min
1.0 ml/min, 35°C



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: 020106S

Product Name: GINSENOSE R_c with HPLC

Cas Number: [11021-14-0]

Lot Number: 1704796

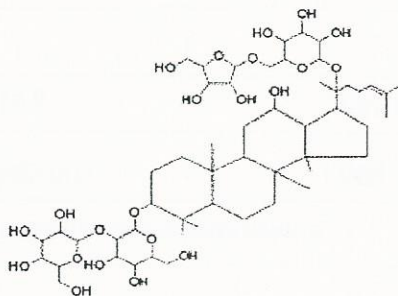
Chemical Formula: C₅₃H₉₀O₂₂

Molecular Weight: 1079.29

Appearance: White powder

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): 98.05%





INDOFINE Chemical Company, Inc.

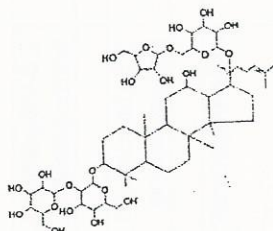
121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

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

website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

HPLC ANALYSIS

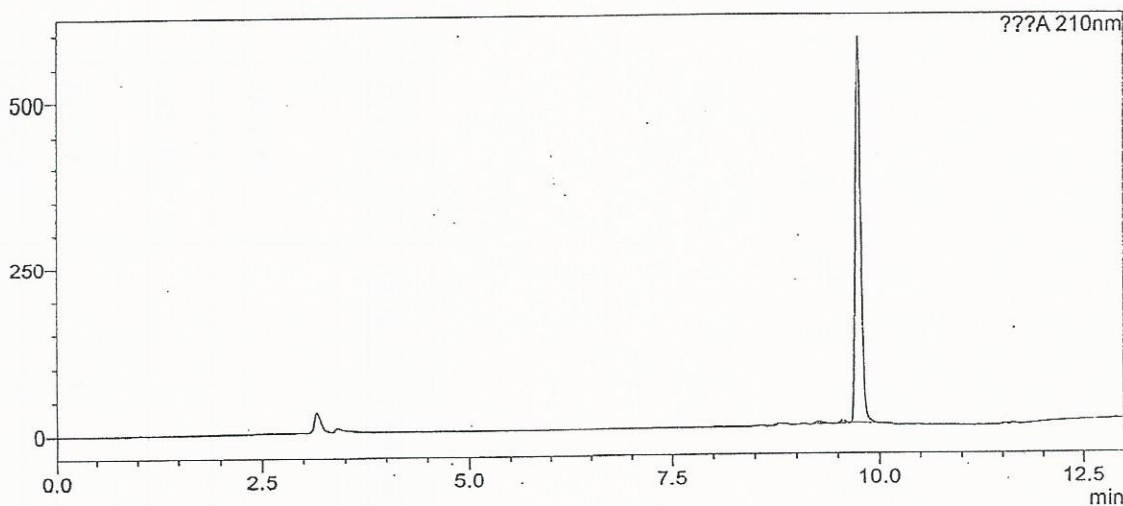


Catalog No.: 020106S

Product Name: Ginsenoside Rc

Lot No.: 1704796

mV



<Peak Table>

???A 210nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Area%
1	9.272	27245	3944	1.000		1.000
2	9.560	21074	5107	0.774		0.774
3	9.751	2670875	581415	98.051		98.051
4	10.103	4784	1238	0.176		0.176
Total		2723978	591703			100.000

<Analysis condition>

Wonda Cract ODS-2 column (5 μ m, 4.6 $\times$ 250 mm)

5% $\rightarrow$ 100% Acetonitrile in 0.05% Phosphoric acid H₂O
over 10.0min followed by 100% Acetonitrile to 13 min

1.0 ml/min, 35°C



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: 020102S

Product Name: **GINSENOSIDE Rd with HPLC**

Cas Number: [52705-93-8]

Lot Number: 1704797

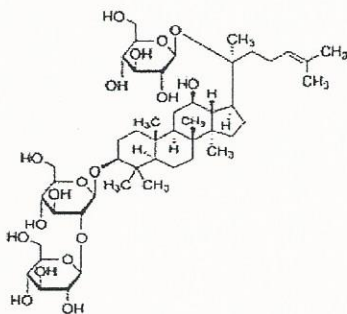
Chemical Formula: $C_{48}H_{82}O_{18}$

Molecular Weight: 947.17

Appearance: Off-white powder

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): 98.01%





INDOFINE Chemical Company, Inc.

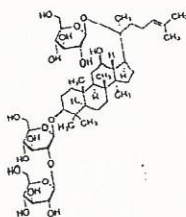
121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

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

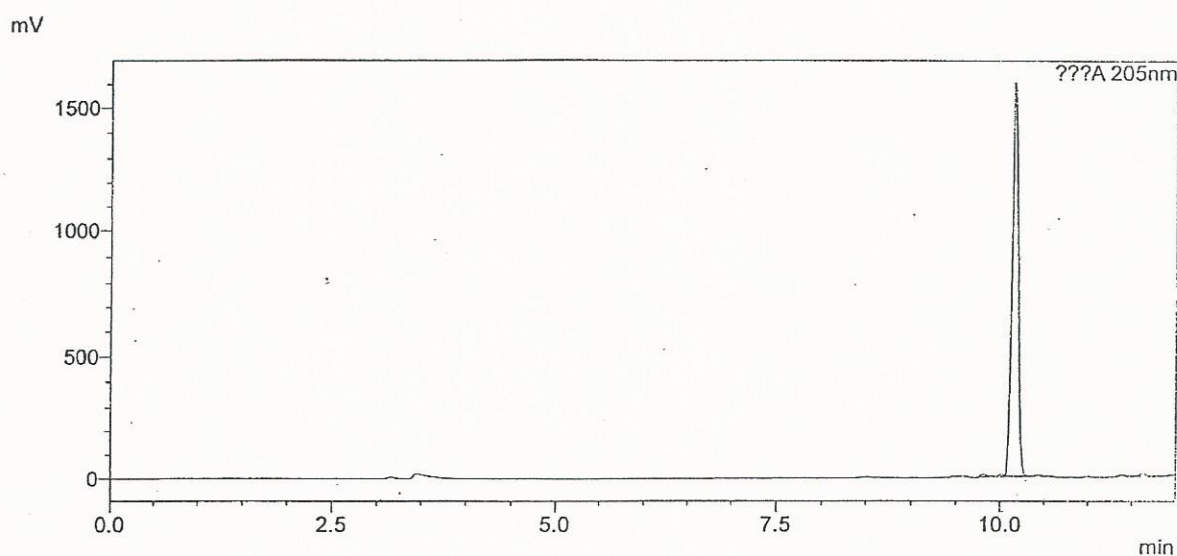
website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

HPLC ANALYSIS



Catalog No.: 020102S
Product Name: Ginsenoside Rd
Lot No.: 1704797



<Peak Table>

???A 205nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Area%
1	9.813	50687	14124	0.626		0.626
2	10.015	39319	11605	0.486		0.486
3	10.153	7931129	1596209	98.019		98.019
4	11.627	70305	14139	0.869		0.869
Total		8091440	1636077			100.000

<Analysis condition>

Wonda Cract ODS-2 column (5 μ m, 4.6 $\times$ 250 mm)
5% $\rightarrow$ 100% Acetonitrile in 0.05% Phosphoric acid H₂O
over 10.0min followed by 100% Acetonitrile to 13 min
1.0 ml/min, 35°C

CERTIFICATE OF ANALYSIS

Catalog Number: 020103S

Product Name: **GINSENOSIDE Re with HPLC**

Cas Number: [52286-59-6]

Lot Number: 1704798

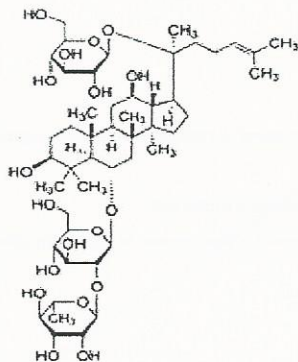
Chemical Formula: $C_{48}H_{82}O_{18}$

Molecular Weight: 947.17

Appearance: White powder

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): 98.03%





INDOFINE Chemical Company, Inc.

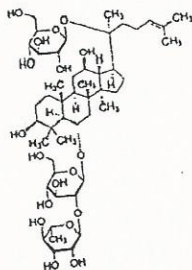
121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

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

website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

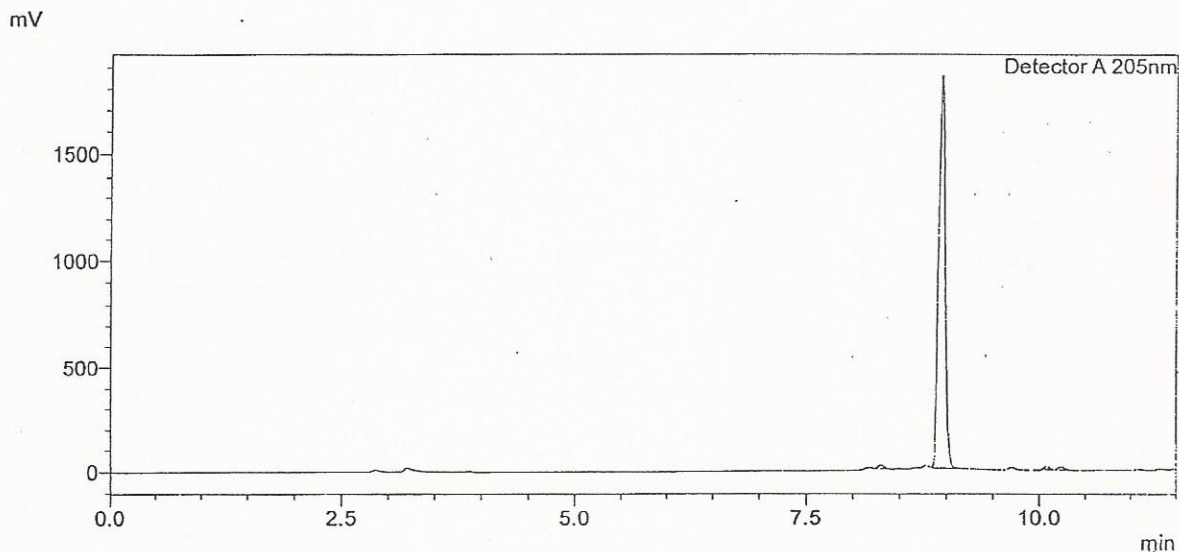
HPLC ANALYSIS



Catalog No.: 020103S

Product Name: Ginsenoside Re

Lot No.: 1704798



<Peak Table>

Detector A 205nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Area%
1	8.298	63072	15388	0.688		0.688
2	8.949	8983196	1841464	98.034		98.034
3	10.079	52594	14467	0.574		0.574
4	10.236	64465	14850	0.704		0.704
Total		9163328	1886168			100.000

<Analysis condition>

InertSustain-C18 column (5 μ m, 4.6 $\times$ 250 mm)

5% $\rightarrow$ 100% Acetonitrile in 0.05% Phosphoric acid H₂O

over 10.0min followed by 100% Acetonitrile to 13 min

1.0 ml/min, 35°C



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: 020101S

Product Name: **GINSENOSIDE Rg1 with HPLC**

Cas Number: [22427-39-0]

Lot Number: 1704799

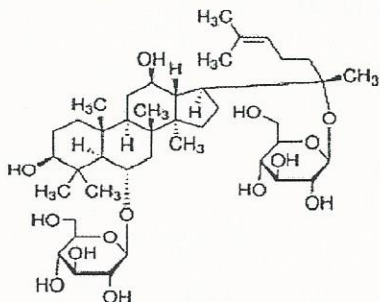
Chemical Formula: $C_{42}H_{72}O_{14}$

Molecular Weight: 801.02

Appearance: White powder

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): 99.65%





INDOFINE Chemical Company, Inc.

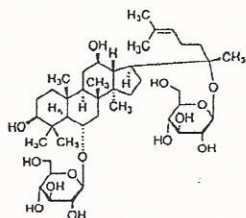
121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

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

website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

HPLC ANALYSIS

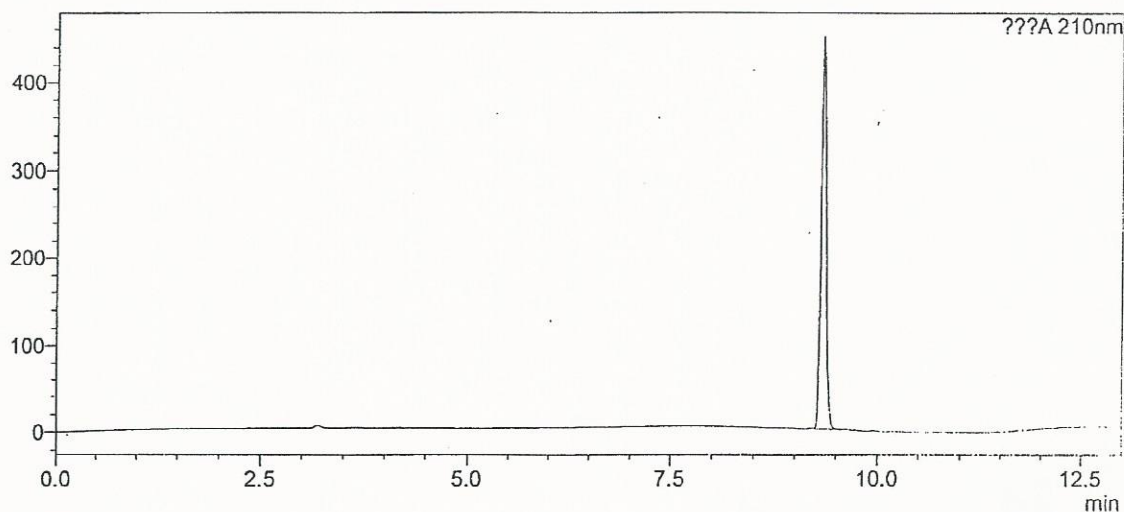


Catalog No.: 020101S

Product Name: Ginsenoside Rg1

Lot No.: 1704799

mV



<Peak Table>

???A 210nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Area%
1	9.224	6768	1767	0.343		0.343
2	9.334	1968700	449320	99.657		99.657
Total		1975469	451087			100.000

<Analysis condition>

Wonda Cract ODS-2 column (5 μ m, 4.6×250 mm)

5%→100% Acetonitrile in 0.05% Phosphoric acid H₂O

over 10.0 min followed by 100% Acetonitrile to 13.0 min

1.0 ml/min, 35°C