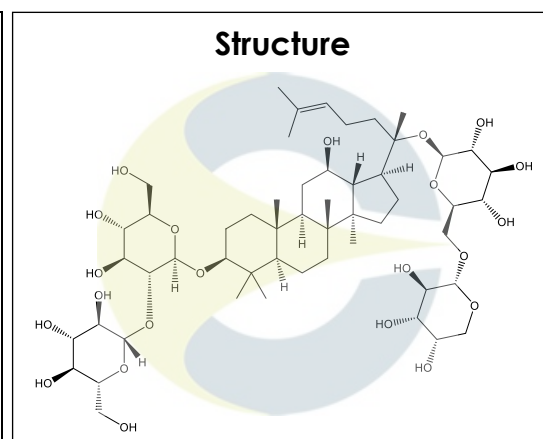


**Certificate of Analysis**

For Laboratory Use Only

<b>PRODUCT NAME</b>	Ginsenoside Rb2
<b>PART NUMBER</b>	00007195
<b>STANDARD TYPE</b>	Primary (P)
<b>LOT NUMBER</b>	00007195-925
<b>REPORT NUMBER</b>	CDXA-RSS-10104-00
<b>SAMPLE NUMBER</b>	CHA202998
<b>DATE OF SAMPLE</b>	15Feb2023
<b>DATE OF REPORT</b>	13Mar2023



<b>CHEMICAL NAMES</b>	Ginsenoside C; (3β,12β)-20-[(6-O-α-L-Arabinopyranosyl-β-D-glucopyranosyl)oxy]-12-hydroxydammar-24-en-3-yl-2-O-β-D-glucopyranosyl-β-D-glucopyranoside
<b>CHEMICAL FORMULA</b>	C <sub>53</sub> H <sub>90</sub> O <sub>22</sub>
<b>MOLECULAR WEIGHT (MW)</b>	1079.27
<b>CHEMICAL FAMILY</b>	Saponins
<b>CAS NUMBER</b>	[11021-13-9]
<b>EC#(EINECS)</b>	234-251-4
<b>RTECS</b>	LZ5779240

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	85.6%
HPLC	0.700.10.2.METH102	≥ 90%	90.9%
NMR	0.700.12.4	Conforms to structure	Conforms to structure
Mass Spectrum	0.700.12.27	Conforms	Conforms
Residual Solvent*	USP <467>	NA	Ethanol: 1270 ppm 1-Butanol: 707 ppm
Water	0.700.12.37	NA	5.6%
Appearance	NA	NA	White powder

\*Testing performed at an ISO 17025 accredited subcontracted laboratory.

ADJUSTED PURITY: 85.6% IS BASED ON (100 - 0.2 SOLVENTS - 5.6 WATER) X 90.9% HPLC

**STORAGE CONDITIONS**
**STORAGE** Room Temperature in a dry place.

## Certificate of Analysis

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EXPIRATION DATE 02/2028 under the above conditions.

## ANALYTICAL CONDITIONS

INSTRUMENT AGILENT 1260 HPLC UV-VIS (DAD) CONNECTED TO DIONEX CORONA VEO CHARGED AEROSOL DETECTOR (CAD); AB-SCIEX 6600 TRIPLE TOF

COLUMN Phenomenex Kinetex C18, 150 x 4.6 mm, 2.6 µm particle size

MOBILE PHASE A - Ultrapure water, B - Acetonitrile;

Minutes	%A	%B
0.0	85	15
15	70	30
16	68	32
19	62	38
24	57	43
27	45	55
31	35	65
35	30	70
38	10	90
39	85	15
43	85	15

COLUMN TEMP. 40 °C

FLOW RATE 1.5 mL/minute

INJECTION VOL. 5.0 µL

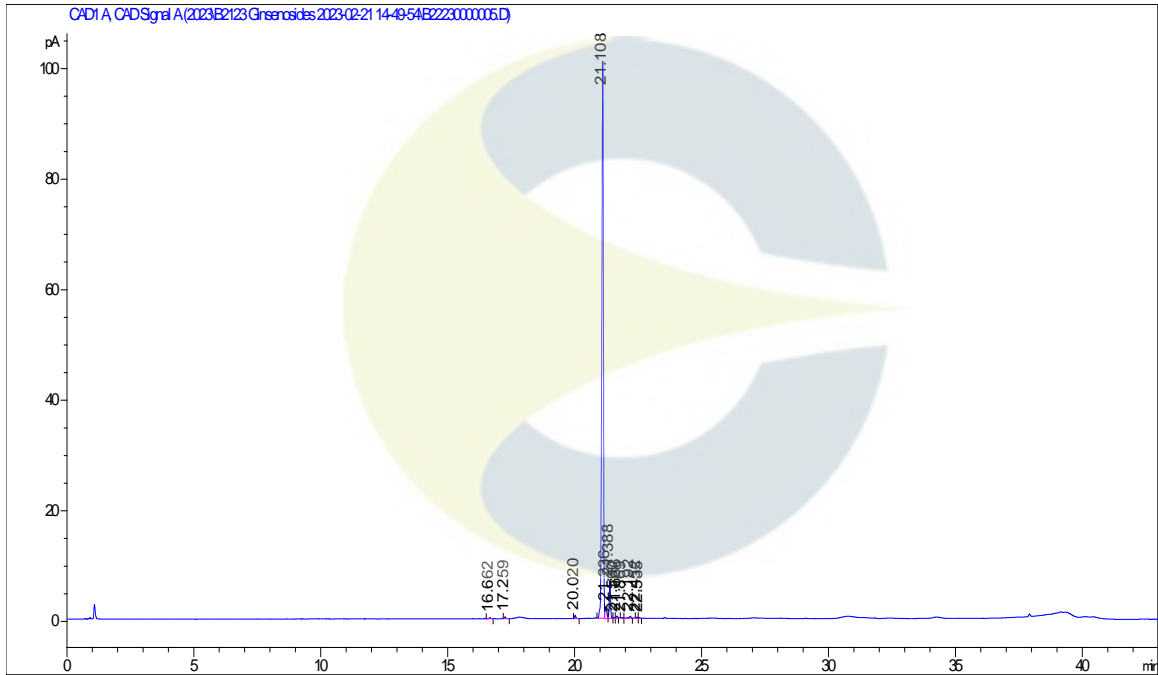
INJECTION CONC. 1.0 mg/mL in Methanol

DETECTION CAD

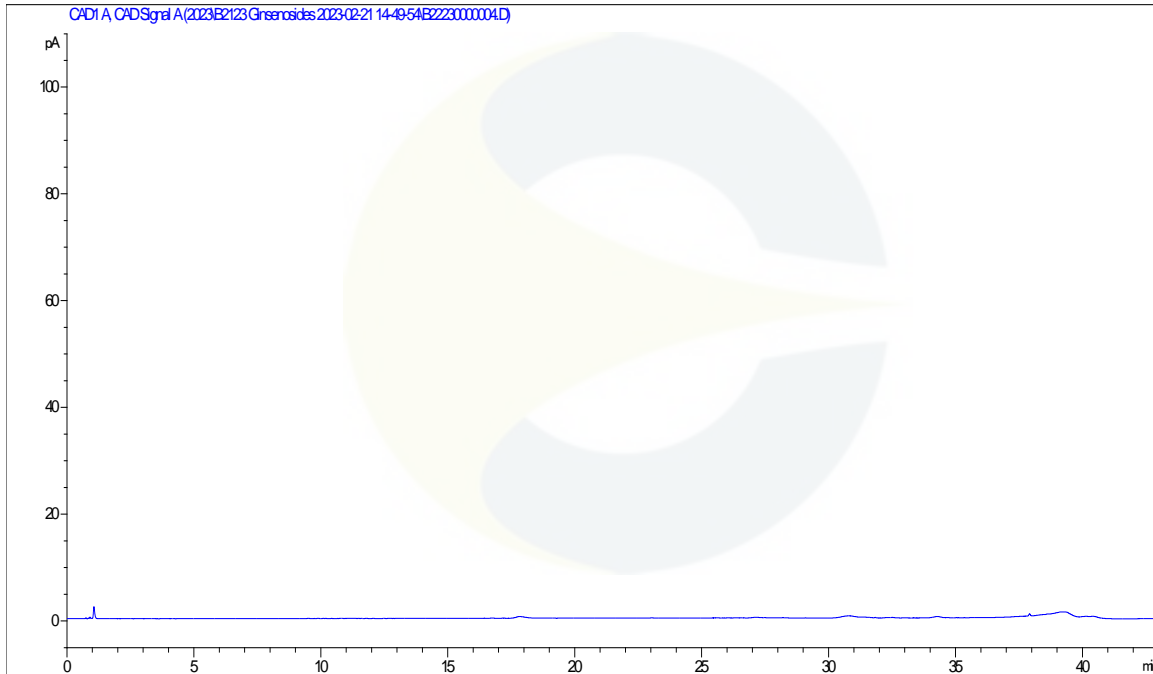
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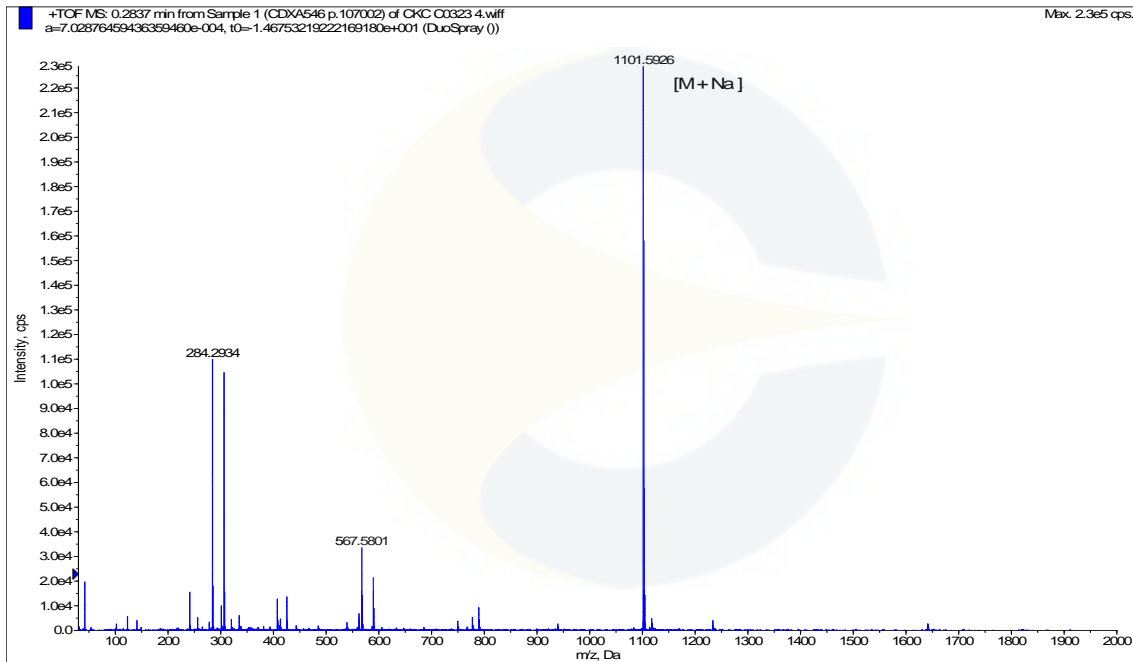
HPLC CHROMATOGRAM OF GINSENOSE RB2 (00007195-925)

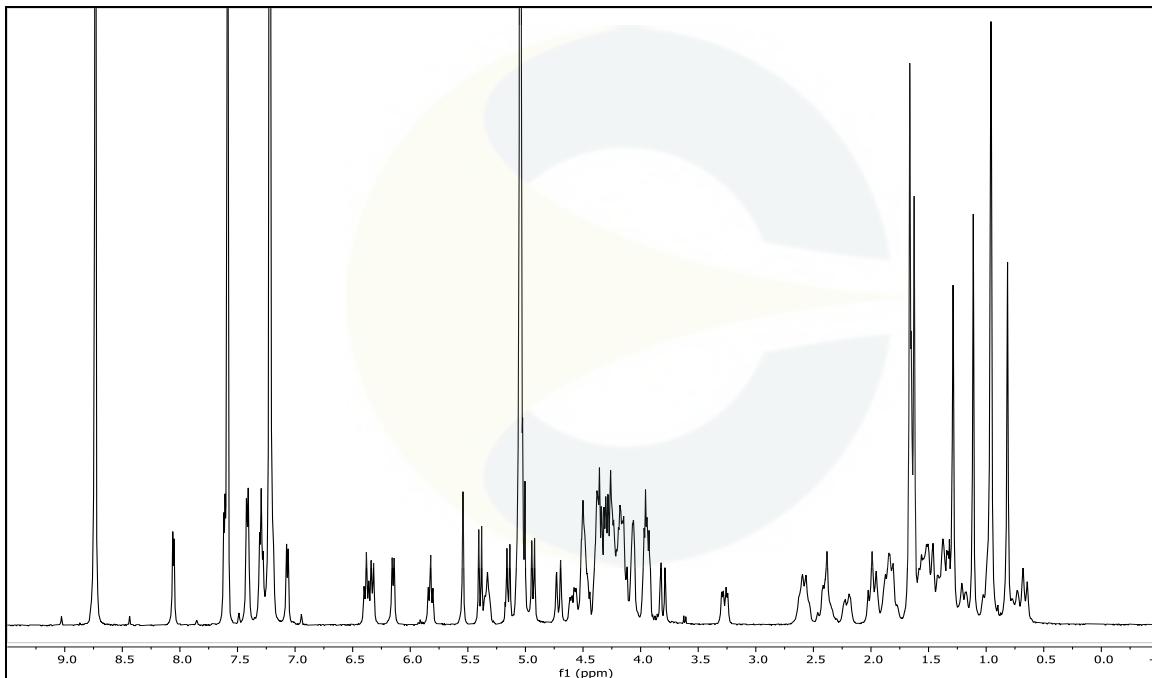
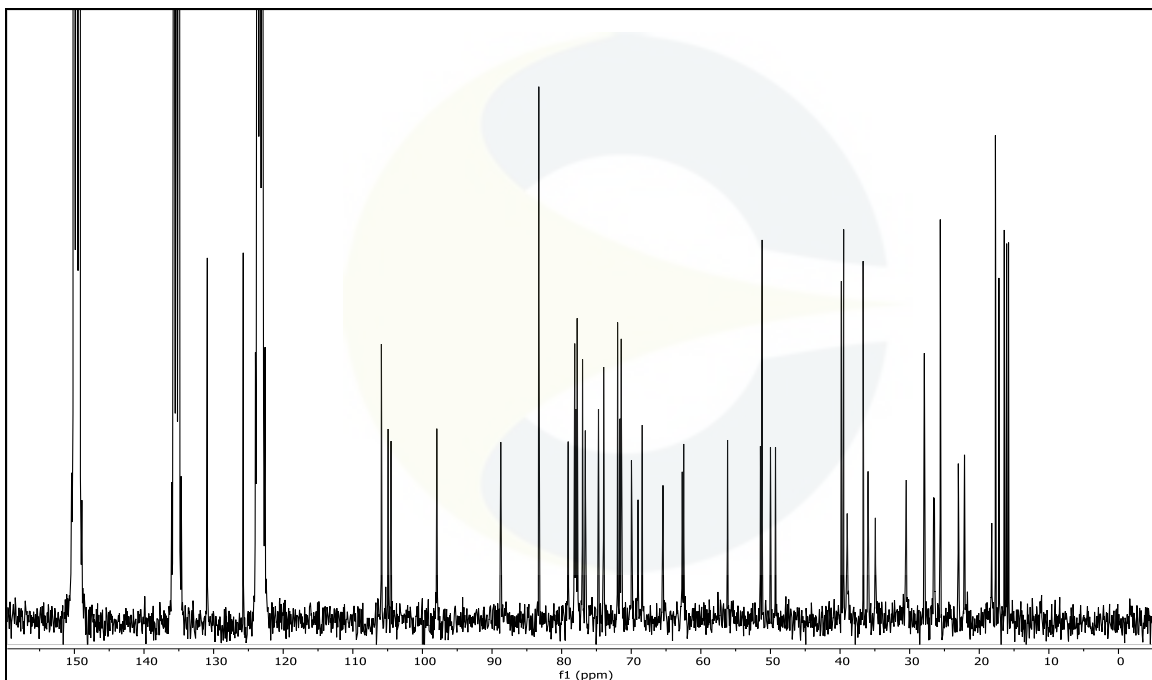


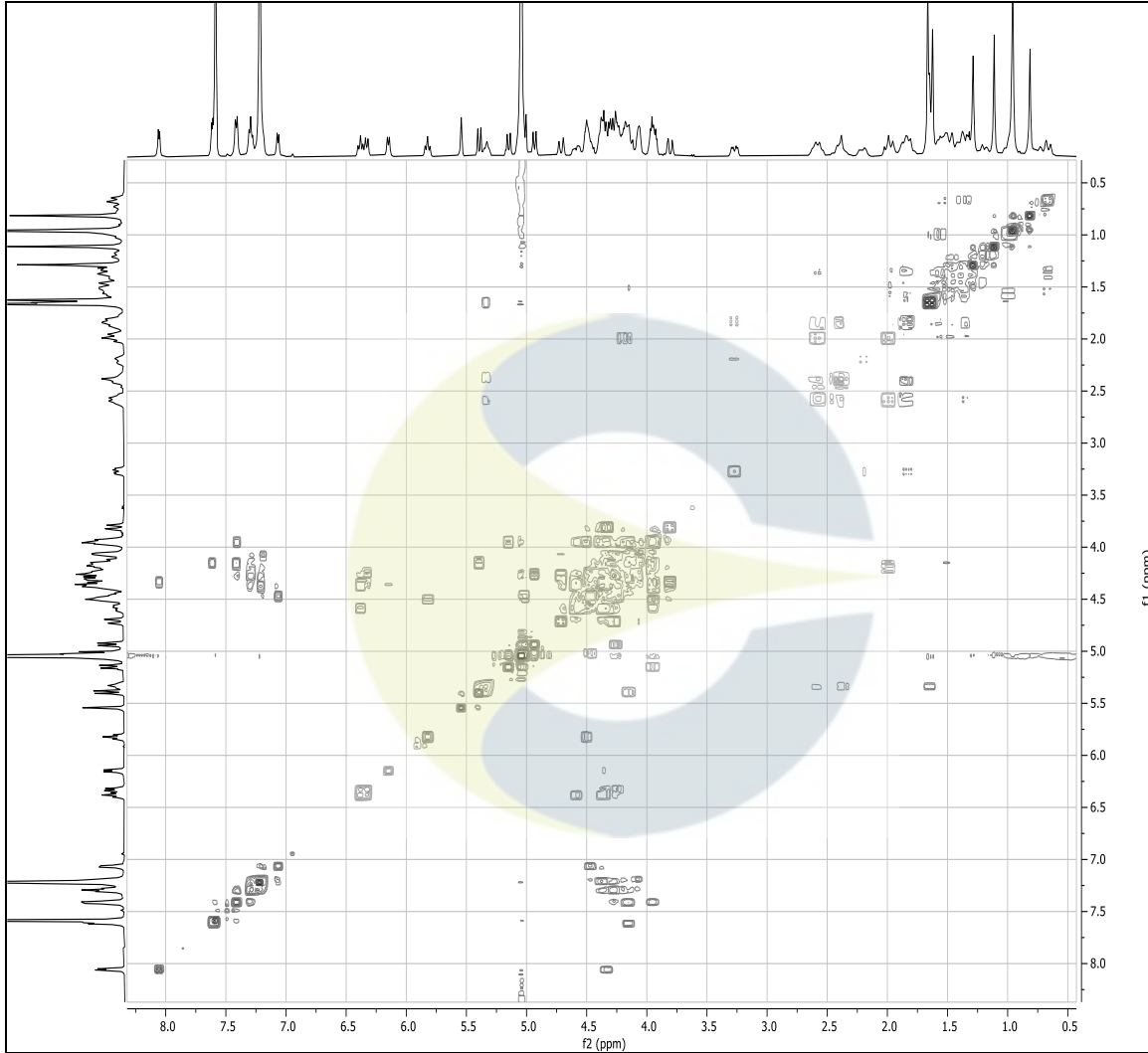
**HPLC CHROMATOGRAM OF DILUENT BLANK**



**MASS SPECTRUM OF GINSENOSIDE RB2 (00007195-925)**



**<sup>1</sup>H-NMR SPECTRUM OF GINSENSIDE RB2 (00007195-925) IN PYRIDINE-*d*<sub>5</sub>****<sup>13</sup>C-NMR SPECTRUM GINSENSIDE RB2 (00007195-925) IN PYRIDINE-*d*<sub>5</sub>**

**COSY-NMR SPECTRUM OF GINSENOSE RB2 (00007195-925) IN PYRIDINE-*d*<sub>5</sub>**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	13Mar2023	New report