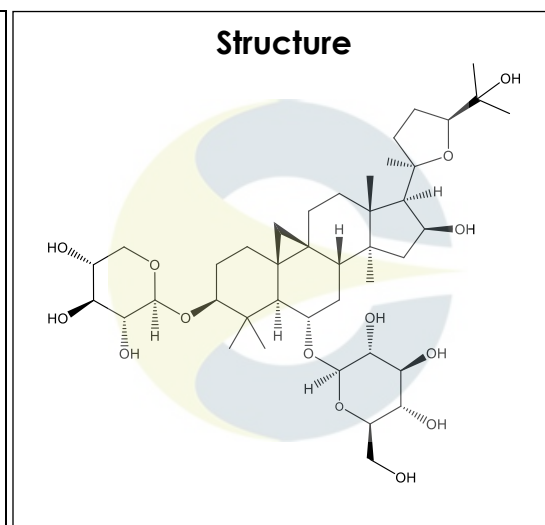


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<b>PRODUCT NAME</b>	Astragaloside IV
<b>PART NUMBER</b>	00011197
<b>STANDARD TYPE</b>	Primary (P)
<b>LOT NUMBER</b>	00011197-201
<b>REPORT NUMBER</b>	CDXA-RSS-3078-04
<b>SAMPLE NUMBER</b>	CDXA-08-2021
<b>DATE OF SAMPLE</b>	08/29/2008
<b>DATE OF RE-EVALUATION</b>	04/23/2013 (1 <sup>st</sup> ); 11/22/2017 (2 <sup>nd</sup> ) 10/11/2021 (3 <sup>rd</sup> )
<b>DATE OF REPORT</b>	11/08/2021



<b>CHEMICAL NAMES</b>	(3 $\beta$ ,6 $\alpha$ ,16 $\beta$ ,20R,24S)-20,24-Epoxy-16,25-dihydroxy-3-( $\beta$ -D-xylopyranosyloxy)-9,19-cyclolanostan-6-yl $\beta$ -D-glucopyranoside; Astraversianin XIV; Cyclosiversioside F
<b>CHEMICAL FORMULA</b>	C <sub>41</sub> H <sub>68</sub> O <sub>14</sub>
<b>MOLECULAR WEIGHT (MW)</b>	784.97
<b>CHEMICAL FAMILY</b>	Triterpene saponins
<b>CAS NUMBER</b>	[84687-43-4]
<b>EC#(EINECS)</b>	617-610-3
<b>RTECS</b>	NA

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	NA	84.6%
HPLC	0.700.10.2.METH56	≥ 90%	90.4%
NMR	0.700.12.4	Conforms to structure	Conforms to structure
Mass Spectrum	Direct Infusion, ESI (-)	Conforms	Conforms
Residual Solvent*	99.1-CD-2.0-000115	NA	ND
Water	0.700.12.37	NA	6.4%
Appearance	NA	NA	White powder

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

ADJUSTED PURITY: 84.6% IS BASED ON (100 - 0.0 SOLVENTS - 6.4 WATER) X 90.4% HPLC

**STORAGE CONDITIONS**

<b>STORAGE</b>	-20 °C in a dry place.
<b>EXPIRATION DATE</b>	10/2026 under the above conditions.

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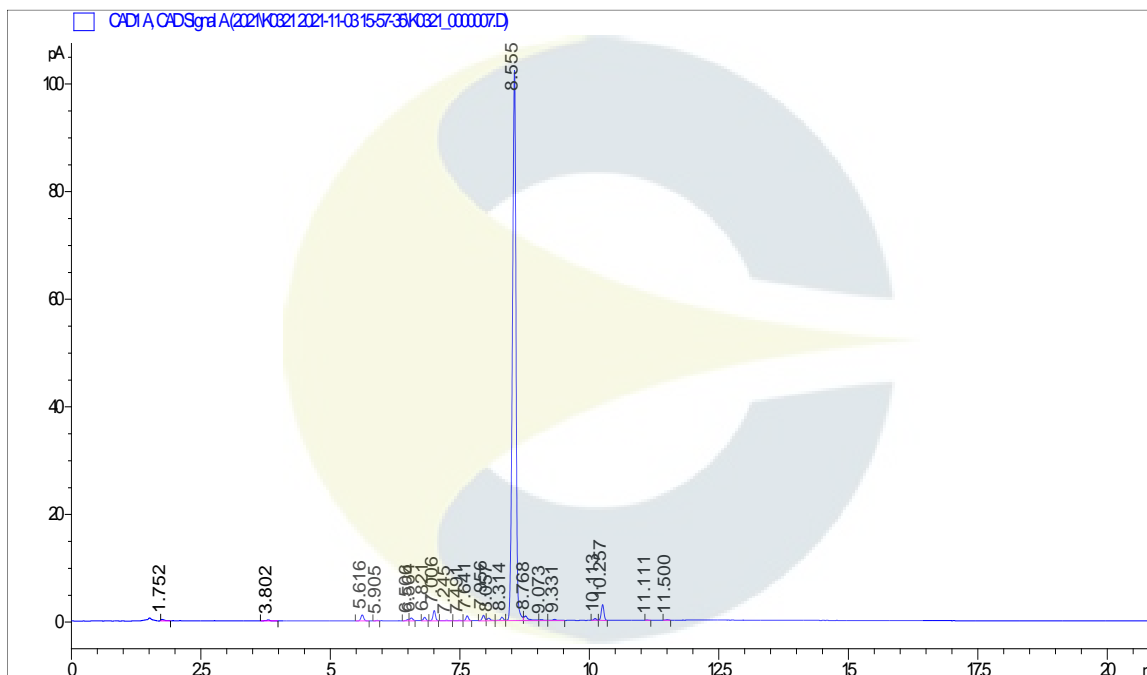
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## ANALYTICAL CONDITIONS

<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD) CONNECTED CORONA-VEO CAD; AGILENT 1100 HPLC CONNECTED TO THERMO-FINNIGAN LCQ-DECA ION TRAP MASS SPECTROMETER
<b>COLUMN</b>	Phenomenex Kinetix C18 150 x 4.6 mm, 2 µm particle size
<b>MOBILE PHASE</b>	A - Milli-Q Water, B - Acetonitrile; Isocratic 30% B for 2 minutes, then increasing to 50% B over 8 minutes, then decreasing to 40% B over 4 minutes, then decreasing to 30% B over 1 minute. Hold at 30% B for 6 minutes.
<b>COLUMN TEMP.</b>	40 °C
<b>FLOW RATE</b>	0.9 mL/minute
<b>INJECTION VOL.</b>	5.0 µL
<b>INJECTION CONC.</b>	1.0 mg/mL in Methanol
<b>DETECTION</b>	CAD

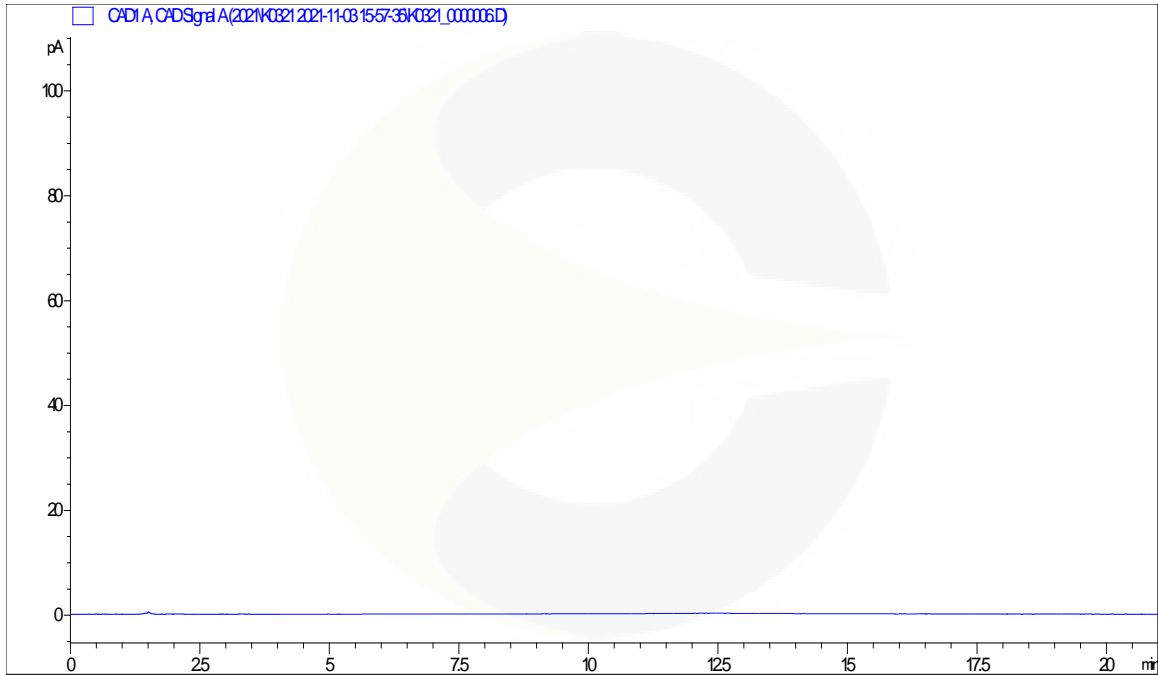
## HPLC CHROMATOGRAM OF ASTRAGALOSIDE IV (CDXA-08-2021)



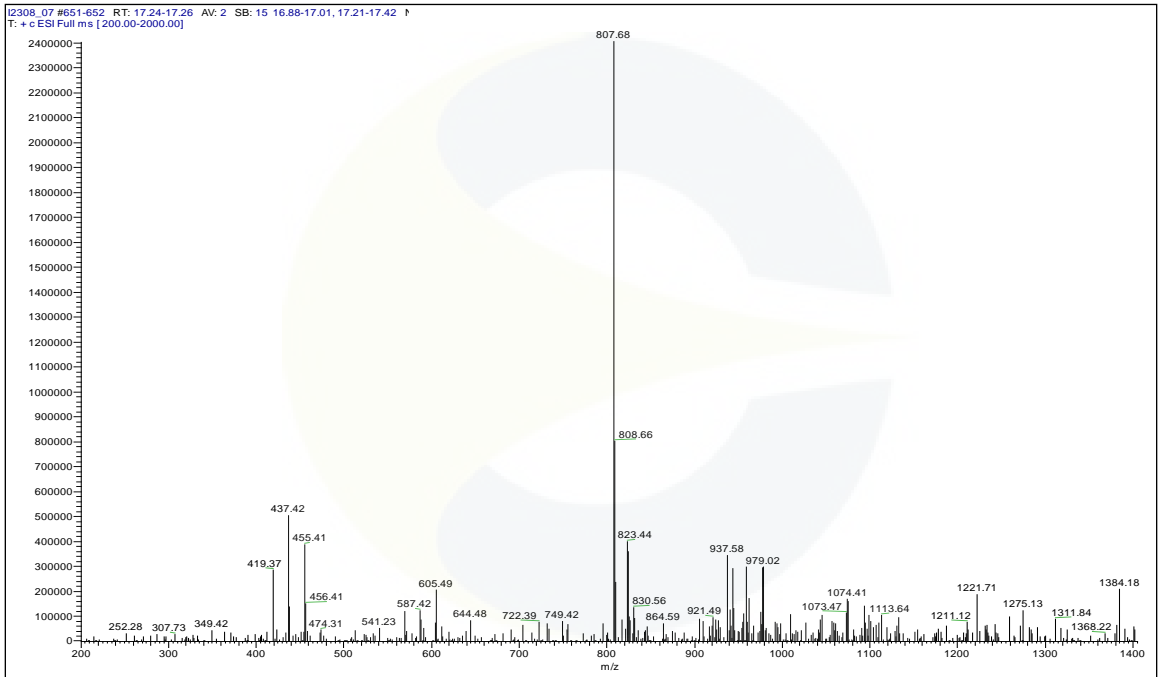
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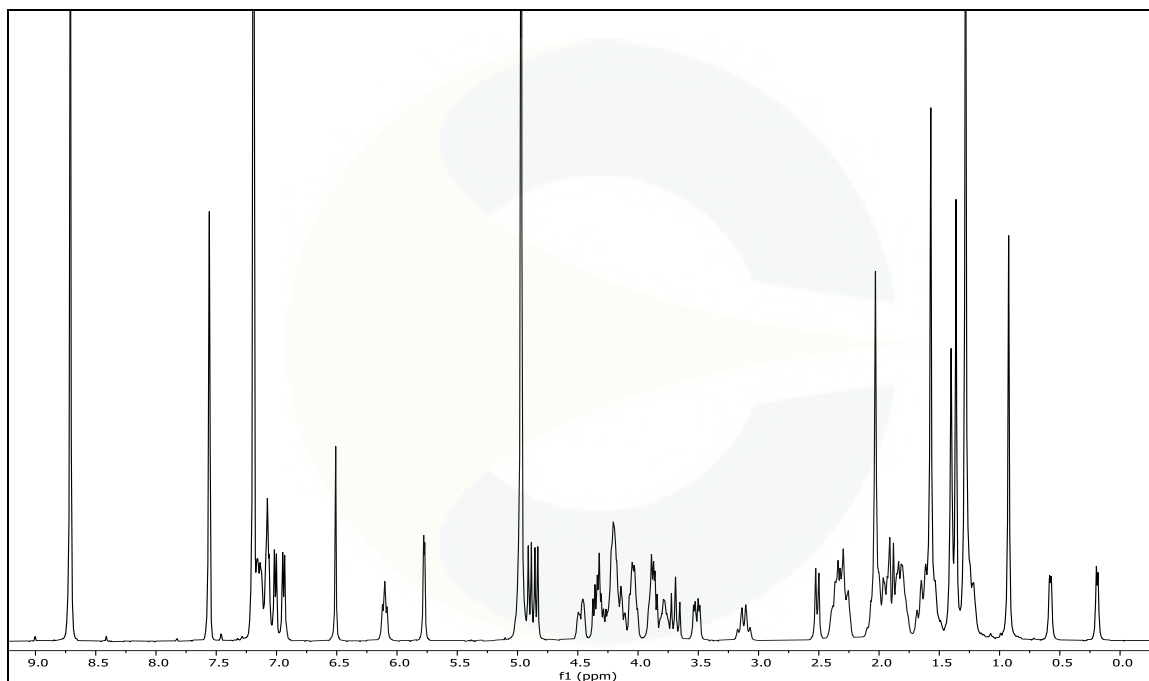
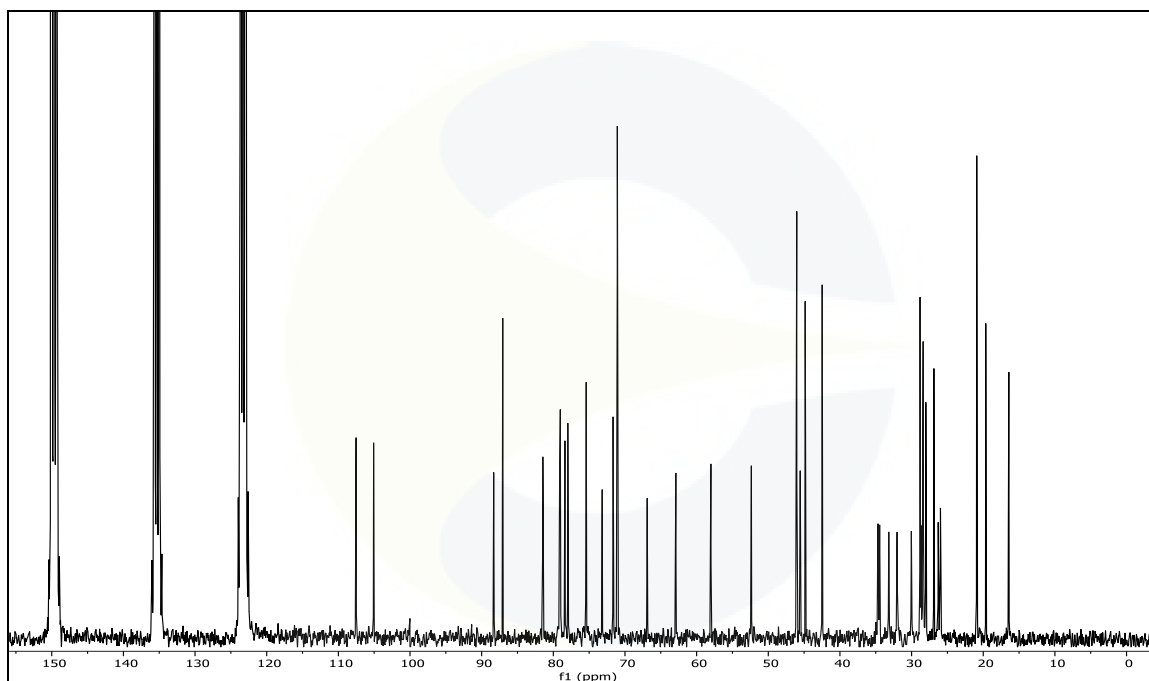
**HPLC CHROMATOGRAM OF DILUENT BLANK**



**MASS SPECTRUM OF ASTRAGALOSIDE IV (CDXA-08-2021)**



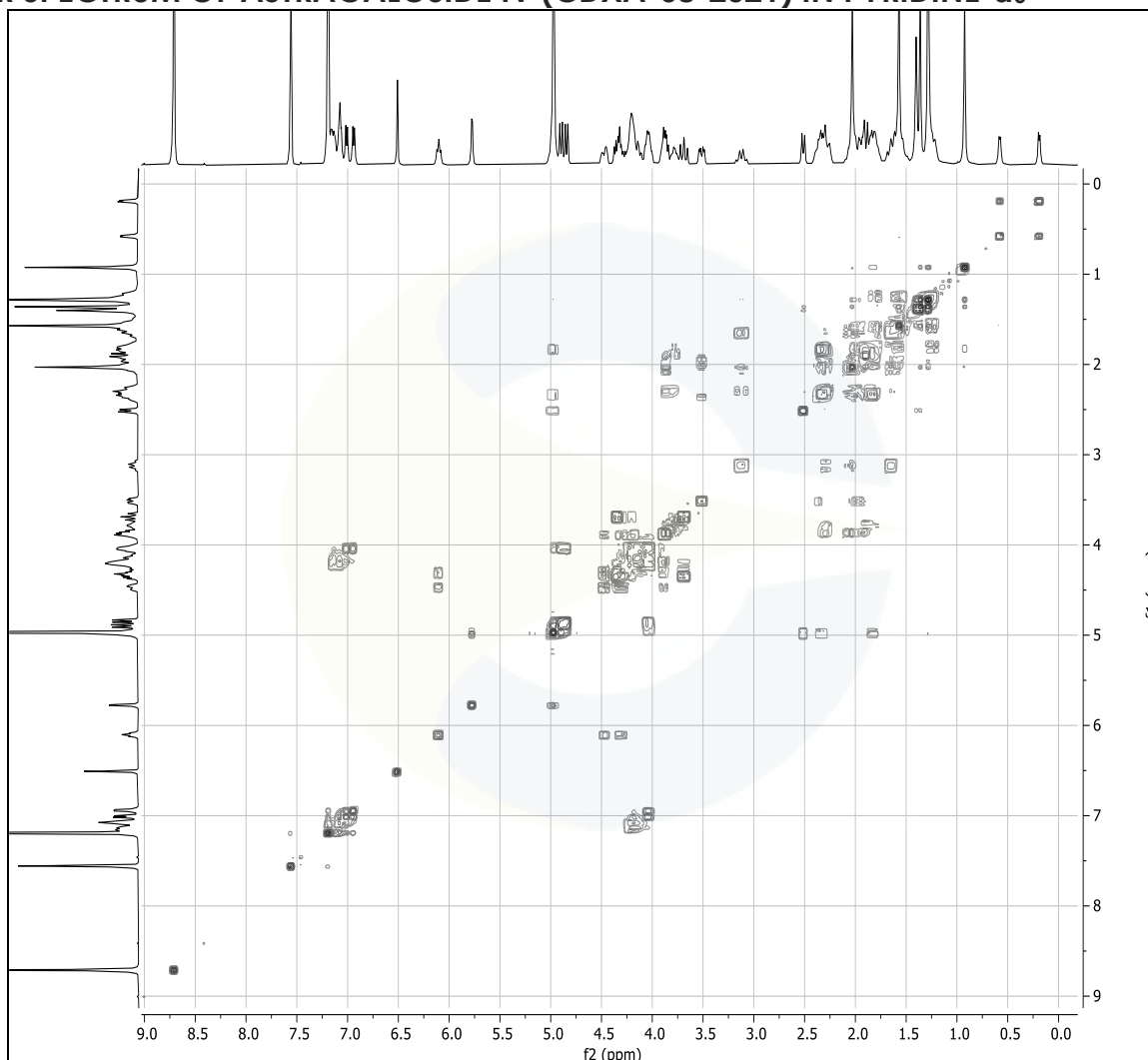
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**<sup>1</sup>H-NMR SPECTRUM OF ASTRAGALOSIDE IV (CDXA-08-2021) IN PYRIDINE-*d*<sub>5</sub>****<sup>13</sup>C-NMR SPECTRUM OF ASTRAGALOSIDE IV (CDXA-08-2021) IN PYRIDINE-*d*<sub>5</sub>**

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**COSY-NMR SPECTRUM OF ASTRAGALOSIDE IV (CDXA-08-2021) IN PYRIDINE-*d*<sub>5</sub>**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	09/24/2008	New report.
01	05/03/2013	Passed first re-evaluation by HPLC and KF. Updated chemical names.
02	12/13/2017	Passed second re-evaluation by HPLC and KF. Updated analytical results, methods, chromatograms, and expiration date. Removed melting point.
03	02/10/2020	Updated template and structure. Corrected page numbers.
04	11/08/2021	Passed third re-evaluation by HPLC, KF and NMR. Updated expiration date, analytical conditions, chromatograms, and results

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