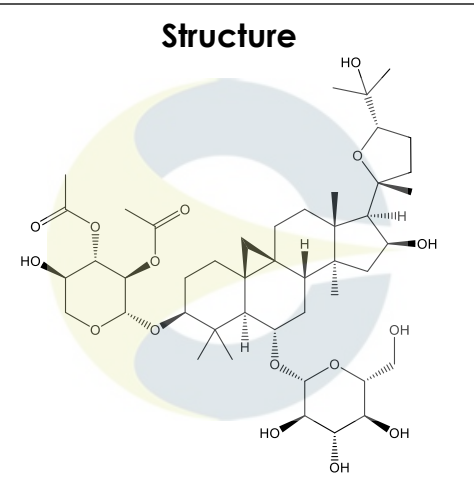


**Certificate of Analysis**

For Laboratory Use Only

<b>PRODUCT NAME</b>	Astragaloside I	 <p><b>Structure</b></p>
<b>PART NUMBER</b>	00111195	
<b>STANDARD TYPE</b>	Analytical Standard (AS)	
<b>LOT NUMBER</b>	00111195-006	
<b>REPORT NUMBER</b>	CDXA-RSS-7046-01	
<b>SAMPLE NUMBER</b>	CDXA-16-002128	
<b>DATE OF SAMPLE</b>	02/18/2016	
<b>DATE OF RE-EVALUATION</b>	02/02/2021	
<b>DATE OF REPORT</b>	03/02/2021	

<b>CHEMICAL NAMES</b>	(3 $\beta$ ,6 $\alpha$ ,16 $\beta$ ,20R,24S)-3-[(2,3-Di-O-acetyl- $\beta$ -D-xylopyranosyl)oxy]-20,24-epoxy-16,25-dihydroxy-9,19-cyclolanostan-6-yl $\beta$ -D-glucopyranoside; Astrasieverianin IV; Cyclosieverioside B
<b>CHEMICAL FORMULA</b>	C <sub>45</sub> H <sub>72</sub> O <sub>16</sub>
<b>MOLECULAR WEIGHT (MW)</b>	869.04
<b>CHEMICAL FAMILY</b>	Saponins
<b>CAS NUMBER</b>	[84680-75-1]
<b>EC#(EINECS)</b>	NA
<b>RTECS</b>	NA

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
HPLC	0.700.10.2.METH22	≥ 75%	89.4%
Mass Spectrum	Direct Infusion: ESI (+)	Conforms	Conforms
Appearance	NA	NA	White powder

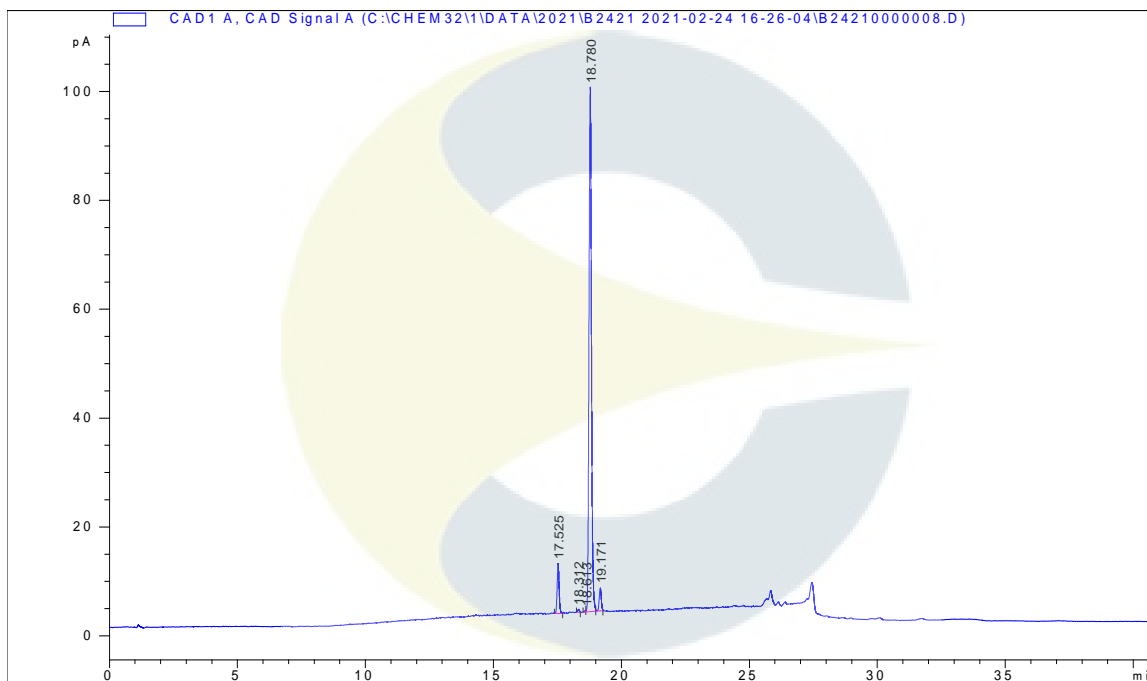
**STORAGE CONDITIONS**

<b>STORAGE</b>	-20 °C in a dry place.
<b>EXPIRATION DATE</b>	02/2026 under the above conditions.

This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

**Certificate of Analysis**
*For Laboratory Use Only*
**ANALYTICAL CONDITIONS**

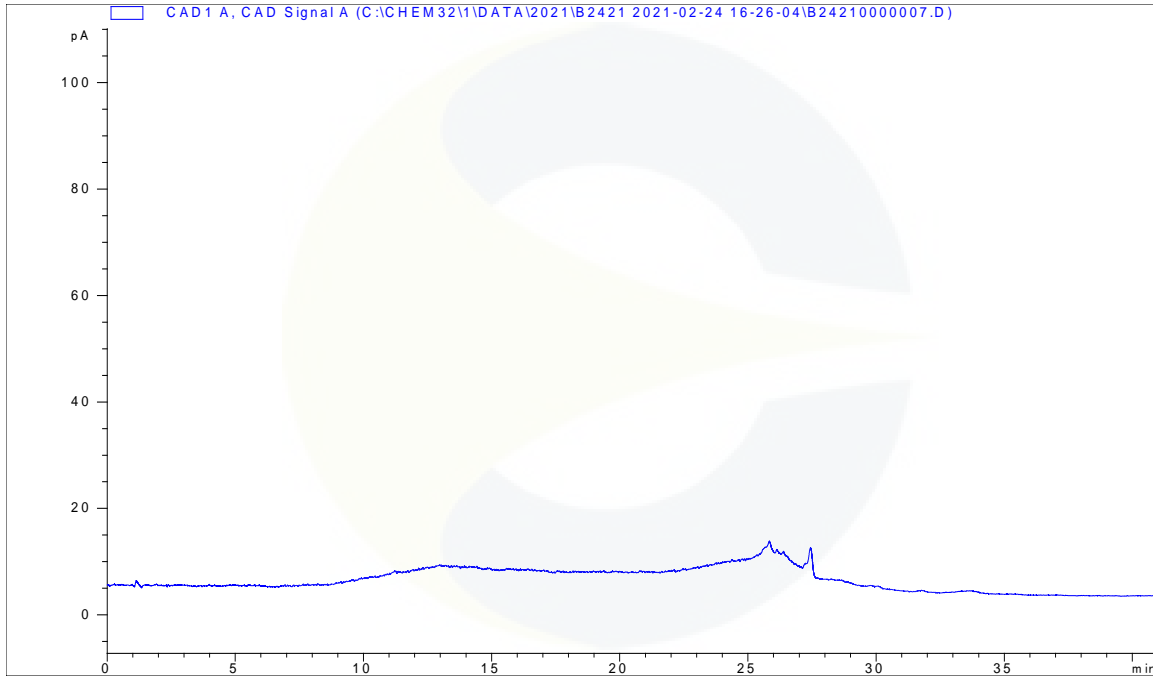
<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD) CONNECTED TO DIONEX CORONA VEO CHARGED AEROSOL DETECTOR (CAD); AGILENT 6510 QTOF
<b>COLUMN</b>	Phenomenex Luna C18(2) 150 x 2.00 mm, 5 µm particle size
<b>MOBILE PHASE</b>	A - Ultrapure water, B - Acetonitrile; Isocratic 5% B for 5 minutes, then increasing to 95% B over 20 minutes. Hold at 95% B for 15 minutes.
<b>COLUMN TEMP.</b>	60 °C
<b>FLOW RATE</b>	0.4 mL/minute
<b>INJECTION VOL.</b>	2.0 µL
<b>INJECTION CONC.</b>	1.0 mg/mL in Methanol
<b>DETECTION</b>	CAD

**HPLC CHROMATOGRAM OF ASTRAGALOSIDE I (CDXA-16-002128)**


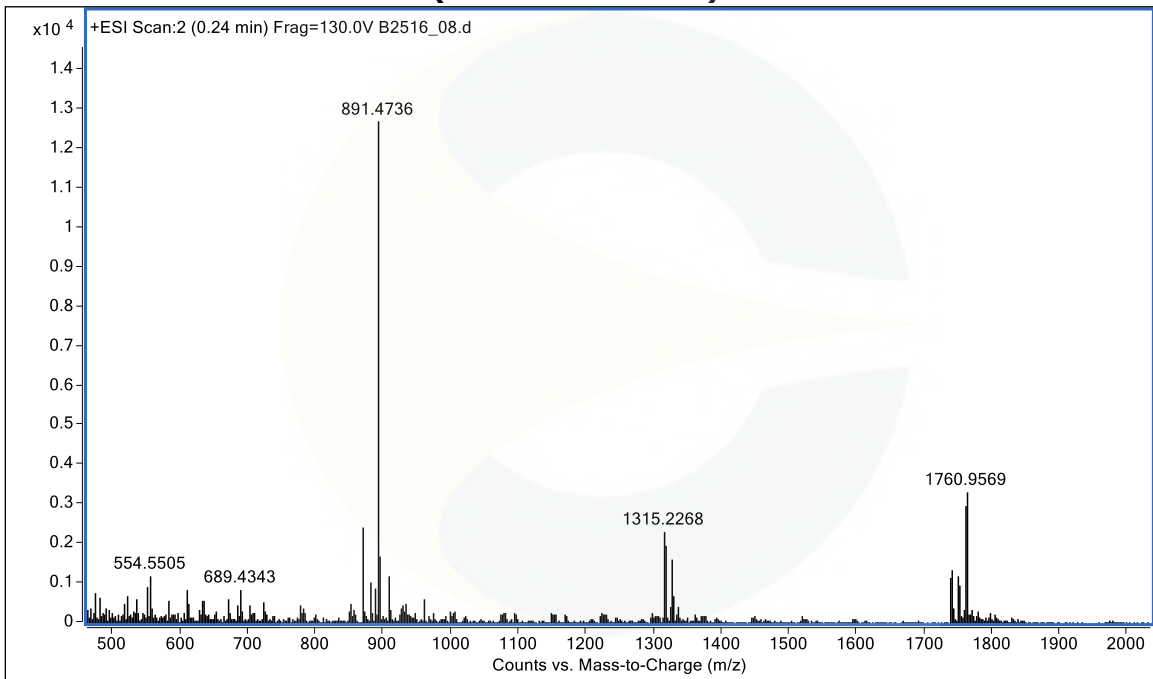
This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

Certificate of Analysis For Laboratory Use Only

**HPLC CHROMATOGRAM OF DILUENT BLANK**



**MASS SPECTRUM OF ASTRAGALOSIDE I (CDXA-16-002128)**



This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

## Certificate of Analysis

For Laboratory Use Only

## REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	03/07/2016	New report
01	03/02/2021	Passed re-evaluation by HPLC, updated expiration date, analytical conditions, chromatograms, and results. Removed melting point.

This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.