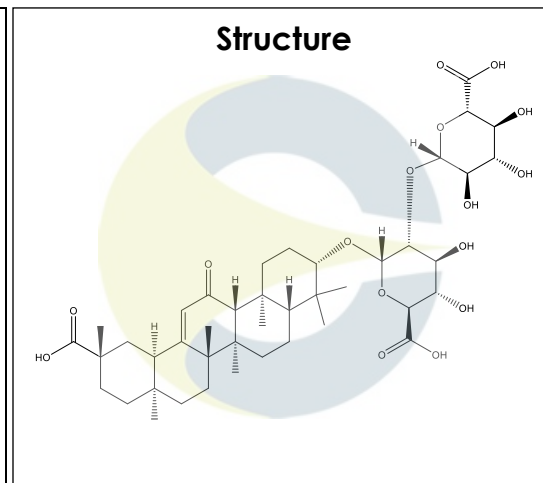


**Certificate of Analysis**
*For Laboratory Use Only*

<b>PRODUCT NAME</b>	Glycyrrhizic acid
<b>PART NUMBER</b>	00007374
<b>STANDARD TYPE</b>	Analytical Standard (AS)
<b>LOT NUMBER</b>	00007374-901
<b>REPORT NUMBER</b>	CDXA-RSS-8880-01
<b>SAMPLE NUMBER</b>	CDXP-20-00188
<b>DATE OF SAMPLE</b>	26Mar2020
<b>DATE OF RE-EVALUATION</b>	13Feb2024
<b>DATE OF REPORT</b>	26Feb2024



<b>CHEMICAL NAMES</b>	(3β,20β)-20-carboxy-11-oxo-30-norolean-12-en-3-yl 2-O-β-D-glucopyranuronosyl-α-D-glucopyranosiduronic acid; 18β-Glycyrrhizic acid; Glycyrrhetic acid glycoside; Glycyrrhizin
<b>CHEMICAL FORMULA</b>	C <sub>42</sub> H <sub>62</sub> O <sub>16</sub>
<b>MOLECULAR WEIGHT (MW)</b>	822.93
<b>CHEMICAL FAMILY</b>	Triterpenes
<b>CAS NUMBER</b>	[1405-86-3]
<b>EC#(EINECS)</b>	215-785-7
<b>RTECS</b>	MD2025000

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
HPLC	0.700.10.2.METH22	≥ 75%	76.6%
Mass Spectrum	0.700.12.27	Conforms	Conforms
Appearance	NA	NA	White powder

**STORAGE CONDITIONS**

<b>STORAGE</b>	Room Temperature in a dry place.
<b>EXPIRATION DATE</b>	02/2029 under the above conditions.

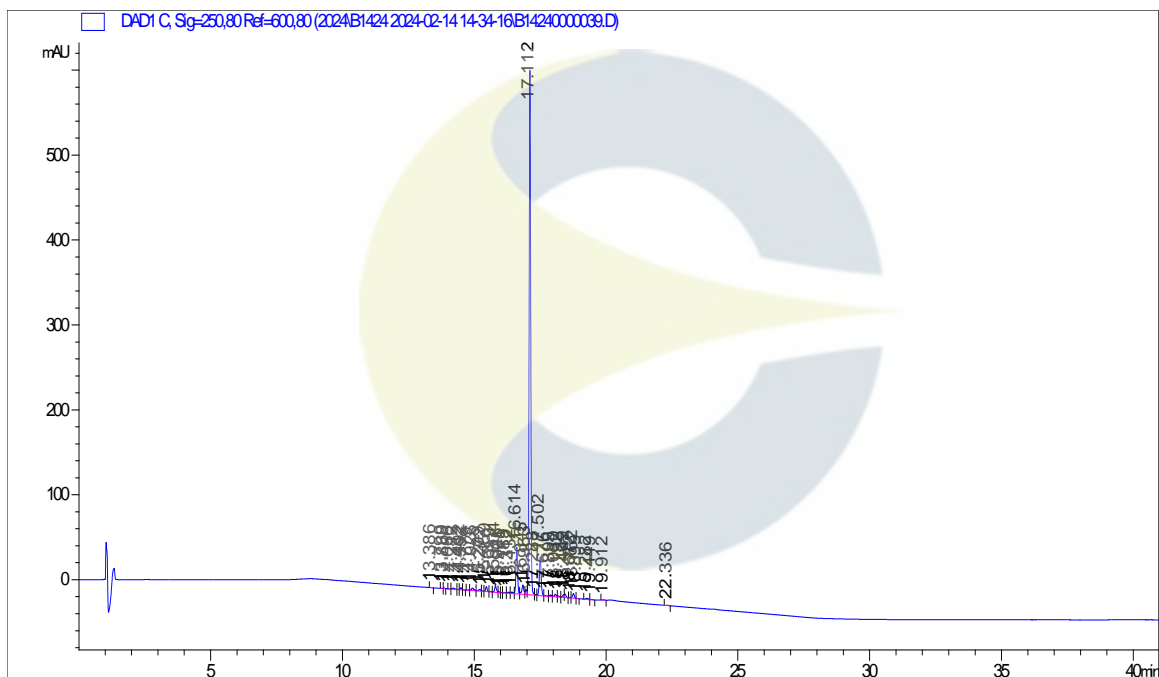
## Certificate of Analysis

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## ANALYTICAL CONDITIONS

<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD); AB-SCIEX 6600 TRIPLE TOF																		
<b>COLUMN</b>	Phenomenex Luna C18(2) 150 x 2.00 mm, 5 µm particle size																		
<b>MOBILE PHASE</b>	A - 0.1% Trifluoroacetic acid in Ultrapure water, B - Acetonitrile;																		
	<table border="1"> <thead> <tr> <th>Minutes</th> <th>%A</th> <th>%B</th> </tr> </thead> <tbody> <tr> <td>0.0</td> <td>95</td> <td>5</td> </tr> <tr> <td>5.0</td> <td>95</td> <td>5</td> </tr> <tr> <td>25.0</td> <td>5</td> <td>95</td> </tr> <tr> <td>40.0</td> <td>5</td> <td>95</td> </tr> <tr> <td>41.0</td> <td>95</td> <td>5</td> </tr> </tbody> </table>	Minutes	%A	%B	0.0	95	5	5.0	95	5	25.0	5	95	40.0	5	95	41.0	95	5
Minutes	%A	%B																	
0.0	95	5																	
5.0	95	5																	
25.0	5	95																	
40.0	5	95																	
41.0	95	5																	
<b>COLUMN TEMP.</b>	60 °C																		
<b>FLOW RATE</b>	0.4 mL/minute																		
<b>INJECTION VOL.</b>	4.0 µL																		
<b>INJECTION CONC.</b>	1.1 mg/mL in Methanol																		
<b>DETECTION</b>	250 ± 40 nm																		

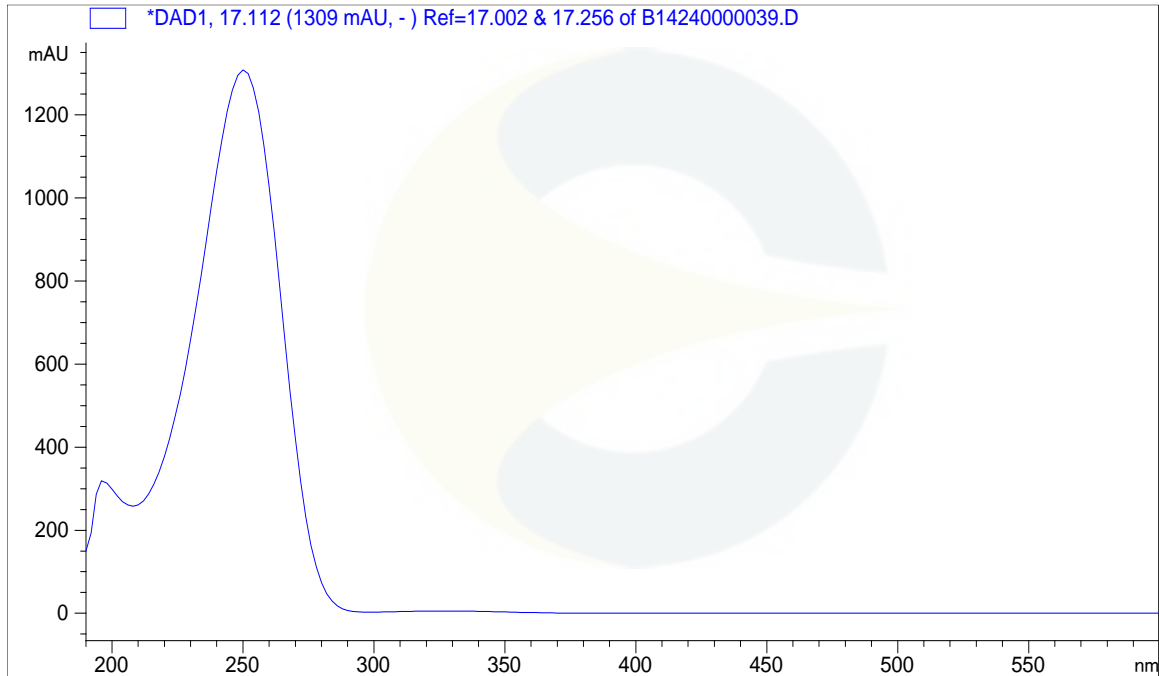
## HPLC CHROMATOGRAM OF GLYCYRRHIZIC ACID (00007374-901)



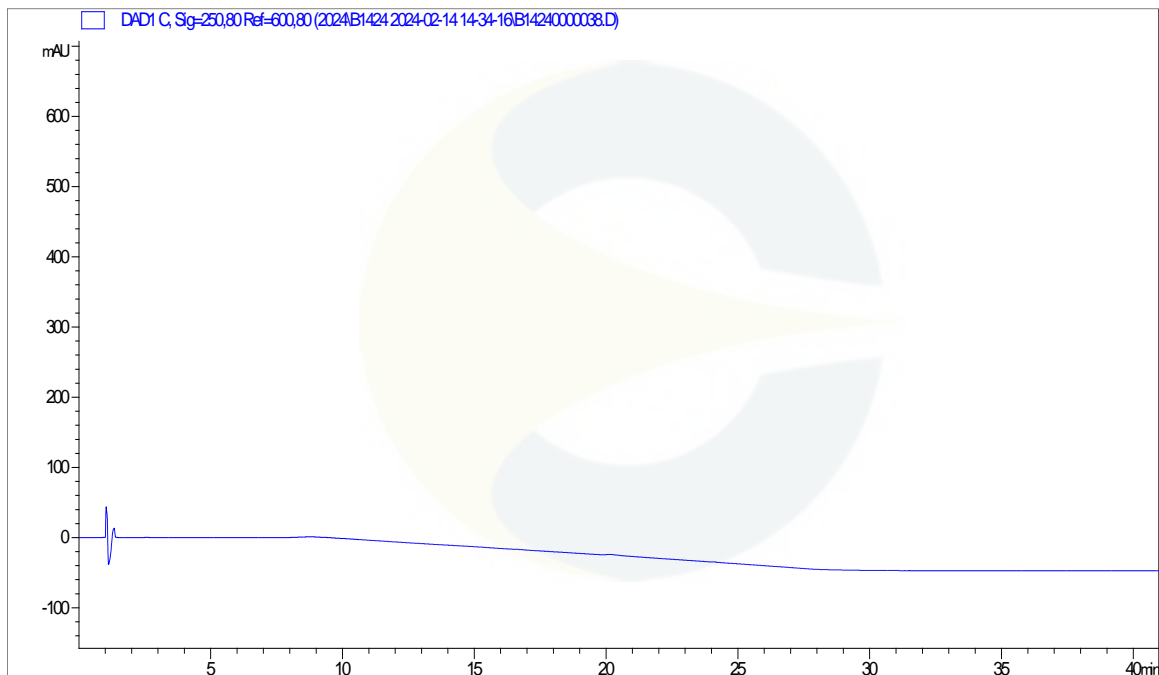
## Certificate of Analysis

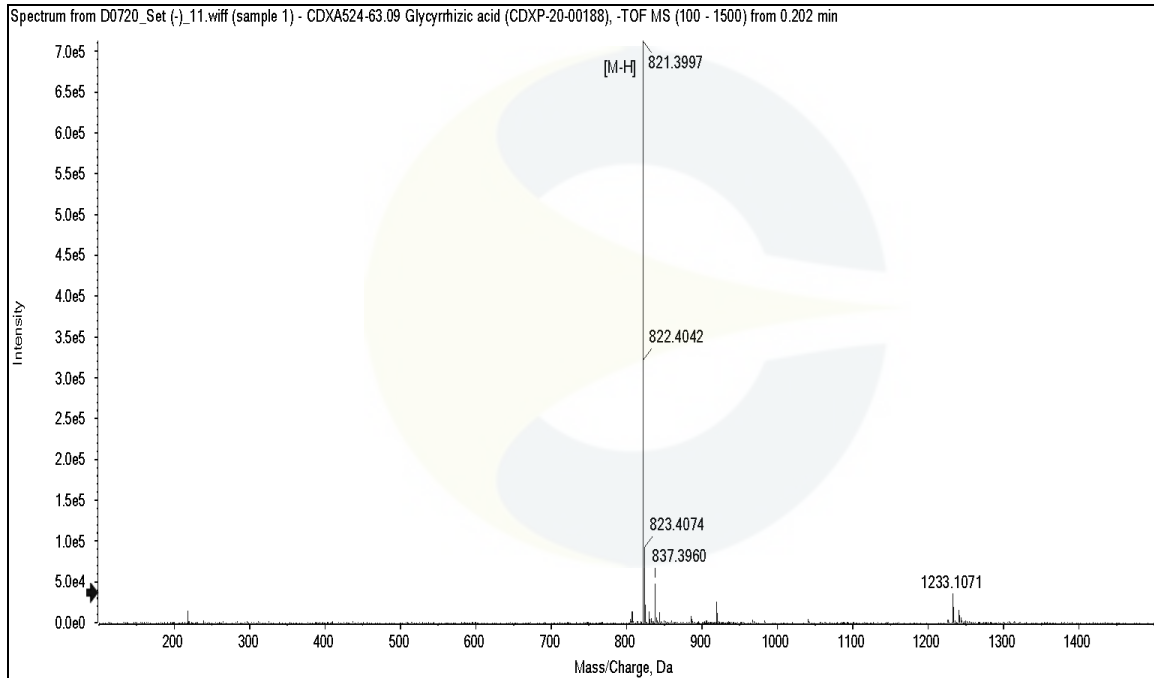
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## UV SPECTRUM AT RT = 17.1 MINUTES



## HPLC CHROMATOGRAM OF DILUENT BLANK



**MASS SPECTRUM OF GLYCYRRHIZIC ACID (00007374-901)**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	21Apr2020	New report
01	26Feb2024	Passed re-evaluation by HPLC. Updated expiration date, analytical conditions, chromatograms, and results.