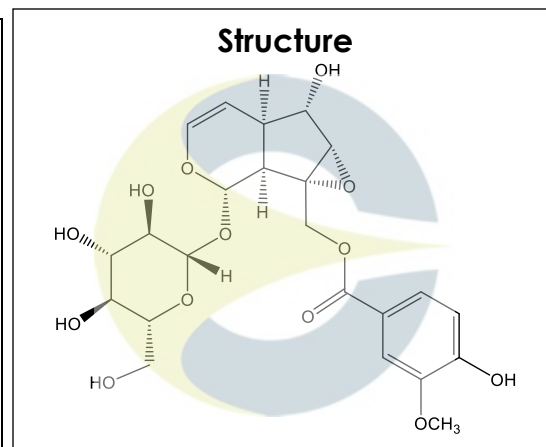


**Certificate of Analysis**
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<b>PRODUCT NAME</b>	Kutkoside
<b>PART NUMBER</b>	00011610
<b>STANDARD TYPE</b>	Analytical Standard (AS)
<b>LOT NUMBER</b>	00011610-002
<b>REPORT NUMBER</b>	CDXA-RSS-9737-00
<b>SAMPLE NUMBER</b>	CDXP-22-00277
<b>DATE OF SAMPLE</b>	02/23/2022
<b>DATE OF REPORT</b>	04/05/2022



<b>CHEMICAL NAMES</b>	(1aS,1bS,2S,5aR,6S)-1a,1b,2,5a,6,6a-Hexahydro-6-hydroxy-1-α-(((4-hydroxy-3-methoxybenzoyl)oxy)methyl)oxireno(4,5)cyclopenta(1,2-c)pyran-2-yl-β-D-glucopyranoside; Kutkosid.
<b>CHEMICAL FORMULA</b>	C <sub>23</sub> H <sub>28</sub> O <sub>13</sub>
<b>MOLECULAR WEIGHT (MW)</b>	512.46
<b>CHEMICAL FAMILY</b>	Iridoids
<b>CAS NUMBER</b>	[35988-27-3]
<b>EC#(EINECS)</b>	NA
<b>RTECS</b>	NA

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
HPLC	0.700.10.2.METH22	≥ 75%	93.4%
Mass Spectrum	0.700.12.27	Conforms	Conforms
Appearance	NA	NA	Off white powder

**STORAGE CONDITIONS**

<b>STORAGE</b>	-20 °C in a dry place.
<b>EXPIRATION DATE</b>	02/2027 under the above conditions.



Digitally signed by  
**Tiffany Rodgers**  
 Date: 2022.04.05  
 14:41:15 -06'00'

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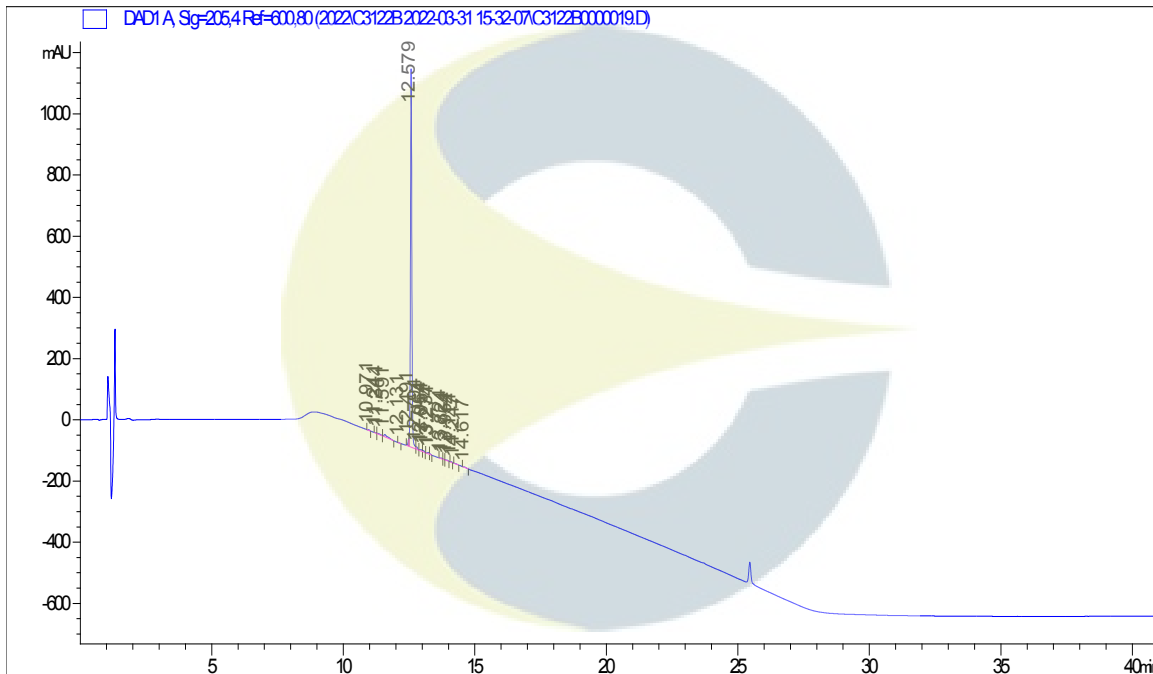
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**ANALYTICAL CONDITIONS**

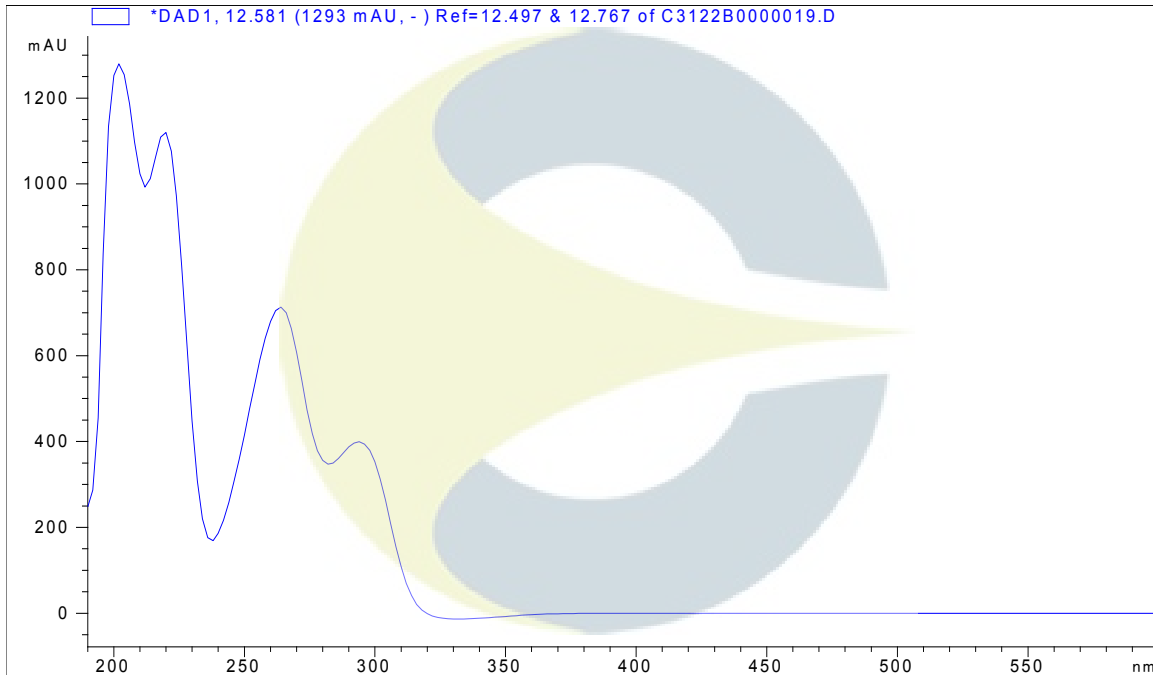
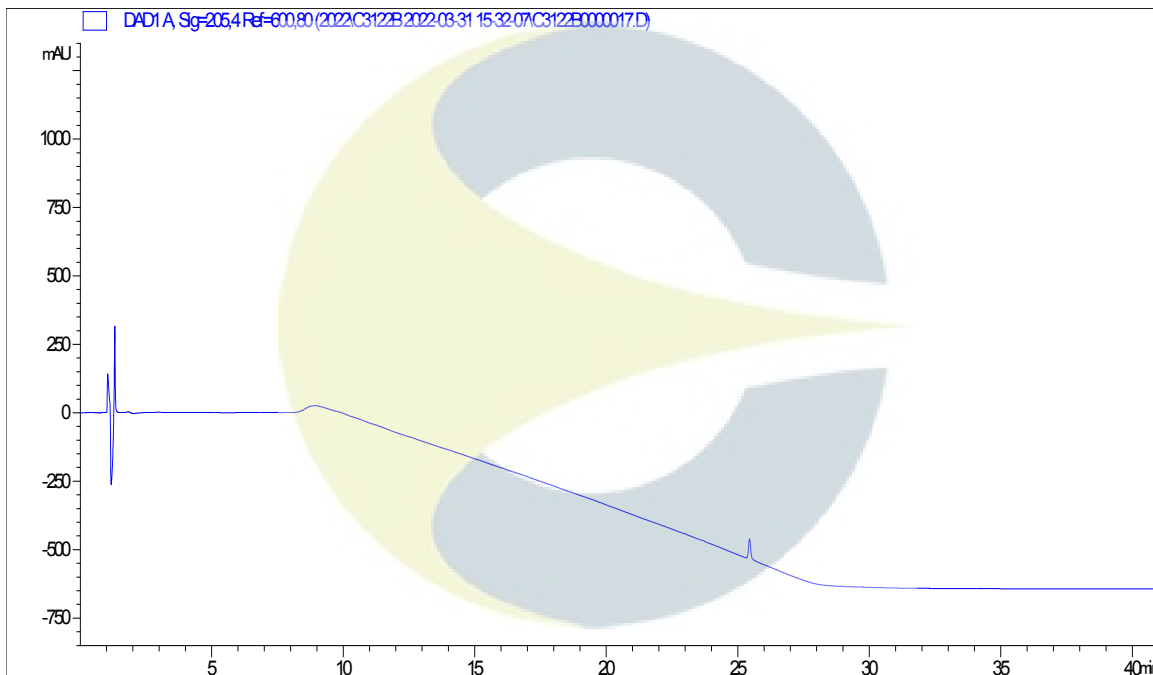
<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD); AB-SCIEX 6600 TRIPLE TOF
<b>COLUMN</b>	Phenomenex Luna C18(2) 150 x 2.00 mm, 5 µm particle size
<b>MOBILE PHASE</b>	A - 0.1% Trifluoroacetic acid in Ultrapure water, B - Acetonitrile; Isocratic 5% B for 5 minutes, then increasing to 95% B over 20 minutes. 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>	0.8 µL
<b>INJECTION CONC.</b>	1.0 mg/mL in Methanol
<b>DETECTION</b>	205 ± 4 nm

**HPLC CHROMATOGRAM OF KUTKOSIDE (CDXP-22-00277)**



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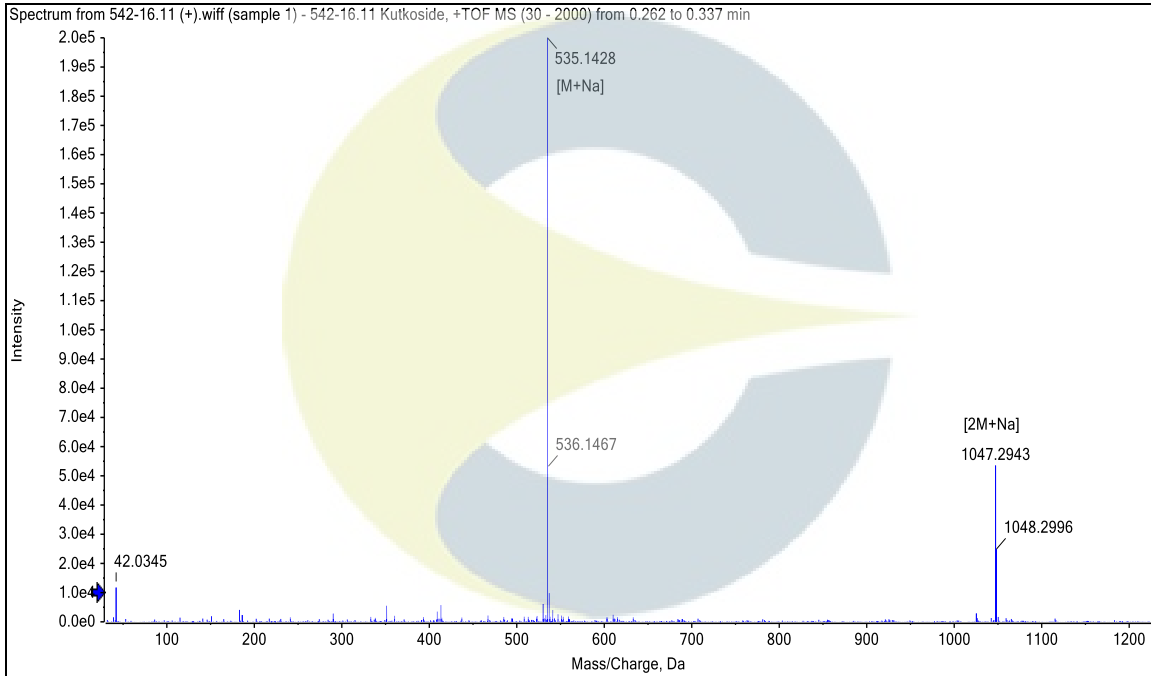
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**Certificate of Analysis**
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**UV SPECTRUM AT RT = 12.6 MINUTES**

**HPLC CHROMATOGRAM OF DILUENT BLANK**


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**MASS SPECTRUM OF KUTKOSIDE (CDXP-22-00277)**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	04/05/2022	New report

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