







Certificate of Analysis

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PRODUCT NAMEBacopaside II

PART NUMBER 00002007

STANDARD TYPE Primary (P)

LOT NUMBER 00002007-004

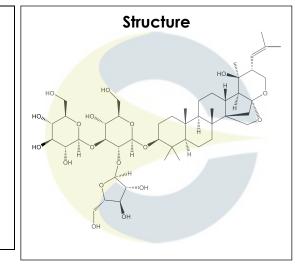
REPORT NUMBER CDXA-RSS-8555-01

SAMPLE NUMBER CDXP-19-00207

DATE OF SAMPLE 03/18/2019

DATE OF RE-EVALUATION 02/06/2023

DATE OF REPORT 02/27/2023



CHEMICAL NAMES (1S,2R,4aR,6aS,6bR,8aR,10S,12aR,12bR,14aR,14bS)-Hexadecahydro-1-hydroxy-1,6b,9,9,12a-

pentamethyl-2-(2-methyl-1-propen-1-yl)-4a,6a-methano-1H,6H-phenanthro[2,1-d]pyrano[2,3-b]pyran-10-yl $O-\alpha$ -L-arabinofuranosyl-(1 \rightarrow 2)-O-[β -D-glucopyranosyl-(1 \rightarrow 3)]- β -D-glucopyranoside

CHEMICAL FORMULA C₄₇H₇₆O₁₈

MOLECULAR WEIGHT (MW) 929.10

CHEMICAL FAMILY Triterpenes

CAS NUMBER [382146-66-9]

RTECS NA

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT 94.8%	
Adjusted Purity	NA	≥ 85%		
HPLC	0.700.10.2.METH22	≥ 90%	98.6%	
NMR	30.1-04-1.0-000733	Conforms to structure	Conforms to structure	
Mass Spectrum	99.1-04-3.0-000126	Conforms	Conforms ND	
Residual Solvent	99.1-CDXA-3.0-000621	NA		
Water 0.700.12.37 Appearance NA		NA	3.9%	
		NA	White powder	

ADJUSTED PURITY: 94.8% IS BASED ON (100 - 0.0 SOLVENTS - 3.9 WATER) X 98.6% HPLC

STORAGE CONDITIONS

STORAGE Room Temperature in a dry place.







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EXPIRATION DATE 02/2028 under the above conditions.

ANALYTICAL CONDITIONS

INSTRUMENT AGILENT 1260 HPLC UV-VIS (DAD); AB-SCIEX 6600 TRIPLE TOF

COLUMN Phenomenex Luna C18(2) 150 x 2.00 mm, 5 μm particle size

MOBILE PHASE 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, then decreasing to 5% B over 1 minute.

COLUMN TEMP. 60 °C

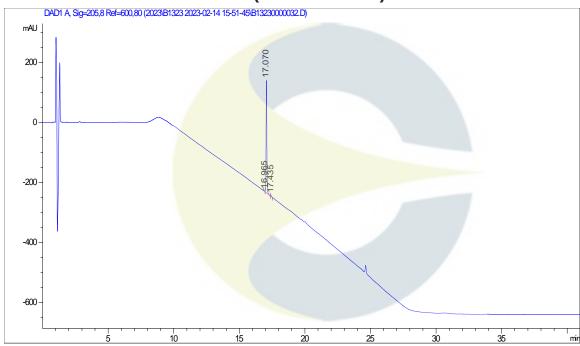
FLOW RATE 0.4 mL/minute

INJECTION VOL. 2.0 μL

INJECTION CONC. 1.0 mg/mL in Methanol

DETECTION $205 \pm 4 \text{ nm}$

HPLC CHROMATOGRAM OF BACOPASIDE II (CDXP-19-00207)





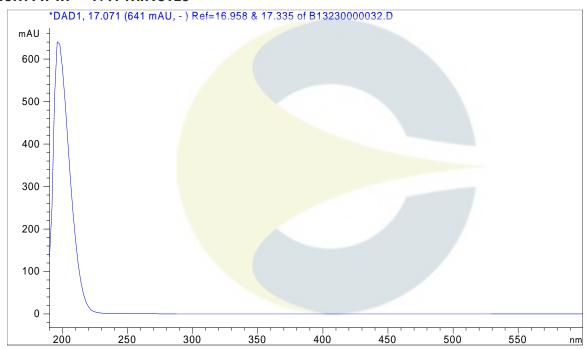




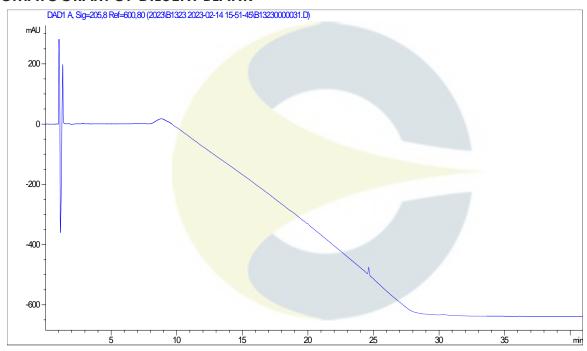
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UV SPECTRUM AT RT = 17.1 MINUTES



HPLC CHROMATOGRAM OF DILUENT BLANK





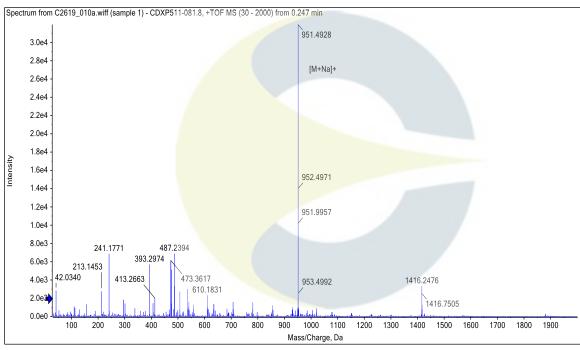




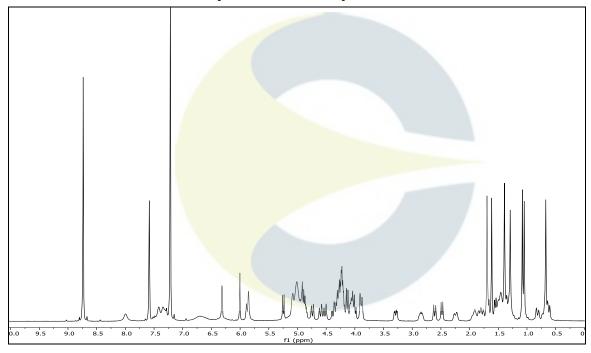
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MASS SPECTRUM OF BACOPASIDE II (CDXP-19-00207)



¹H-NMR SPECTRUM OF BACOPASIDE II (CDXP-19-00207) IN PYRIDINE-d₅





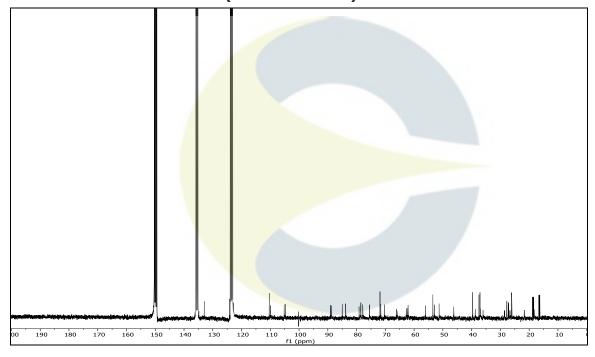




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13C-NMR SPECTRUM OF BACOPASIDE II (CDXP-19-00207) IN PYRIDINE-d5





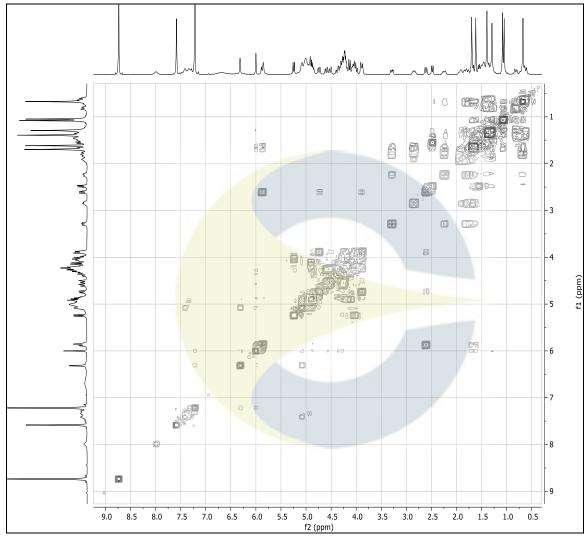




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COSY-NMR SPECTRUM OF BACOPASIDE II (CDXP-19-00207) IN PYRIDINE-d5



REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	04/11/2019	New report
01	02/27/2023	Passed re-evaluation by HPLC and KF. Updated results, analytical conditions, chromatograms, and expiration date.