





Certificate of Analysis

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PRODUCT NAME Procyanidin B1

PART NUMBER 00016230

STANDARD TYPE Primary (P)

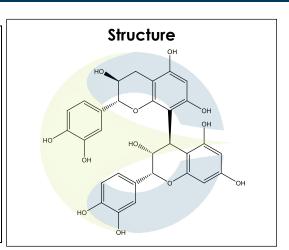
LOT NUMBER 00016230-00303

REPORT NUMBER CDXA-RSS-9775-00

SAMPLE NUMBER CDXP-22-00303

DATE OF SAMPLE 04/05/2022

DATE OF REPORT 05/10/2022



CHEMICAL NAMES (2R,2'R,3R,3'S,4R)-2,2'-bis(3,4-Dihydroxyphenyl)-3,3',4,4'-tetrahydro-(4,8'-Bi-2H-1-

benzopyran)-3,3',5,5',7,7'-hexol; (-)-Epicatechin-(4β-8)-(+)-catechin;

Proanthocyanidin B₁

CHEMICAL FORMULA C₃₀H₂₆O₁₂

MOLECULAR WEIGHT (MW) 578.52

CHEMICAL FAMILY Proanthocyanidins

CAS NUMBER [20315-25-7]

EC#(EINECS) NA

RTECS DT4325120

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	88.0%
HPLC	0.700.10.2.METH22	≥ 90%	97.9%
NMR	30.1-04-1.0-00733	Conforms to structure	Conforms to structure
Mass Spectrum	99.1-04-3.0-000126	Conforms	Conforms
Residual Solvent*	99.1-CDXA-3.0-000621	NA	ND
Water	0.700.12.37	NA	10.1%
Appearance	NA	NA	White powder

*Testing performed at an ISO 17025 accredited subcontracted laboratory.

ADJUSTED PURITY: 88.0% IS BASED ON (100 - 0.0 SOLVENTS - 10.1 WATER) X 97.9% HPLC

STORAGE CONDITIONS

STORAGE +4 °C in a dry place.

EXPIRATION DATE 04/2027 under the above conditions.







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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

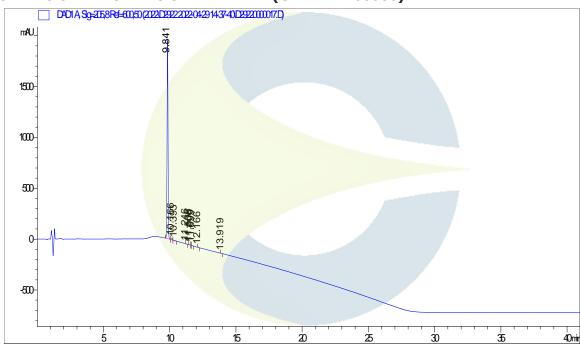
FLOW RATE 0.4 mL/minute

INJECTION VOL. 0.4 μL

INJECTION CONC. 1.0 mg/mL in Methanol

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

HPLC CHROMATOGRAM OF PROCYANIDIN B1 (CDXP-22-00303)





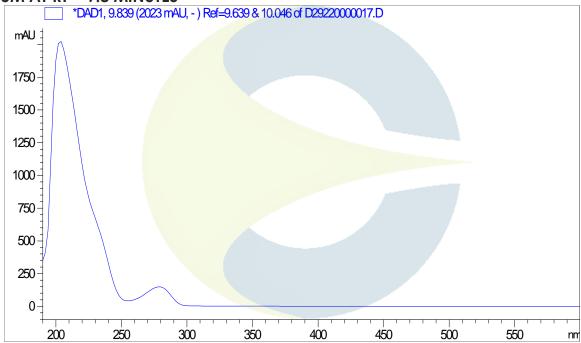




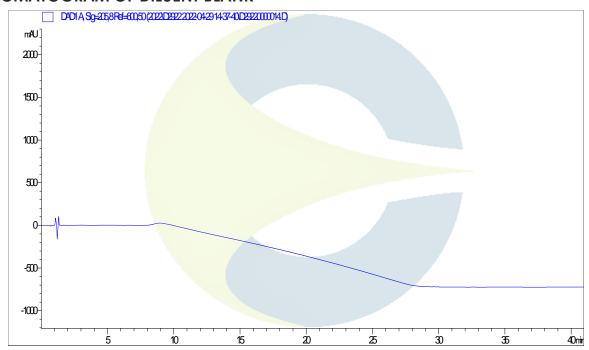
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UV SPECTRUM AT RT = 9.8 MINUTES



HPLC CHROMATOGRAM OF DILUENT BLANK





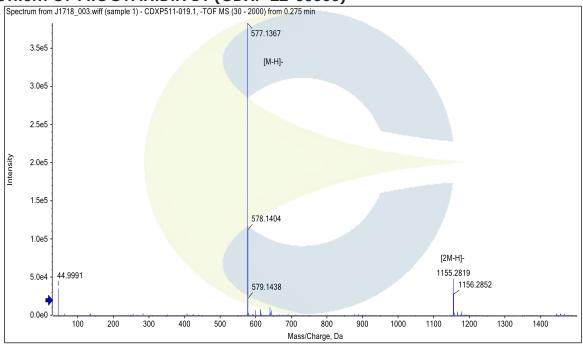




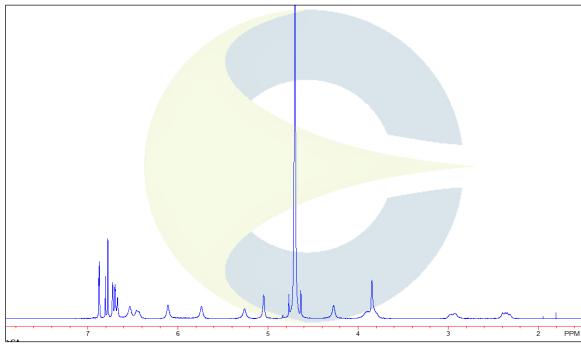
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MASS SPECTRUM OF PROCYANIDIN B1 (CDXP-22-00303)



¹H-NMR SPECTRUM OF PROCYANIDIN B1 (CDXP-22-00303) IN D₂O





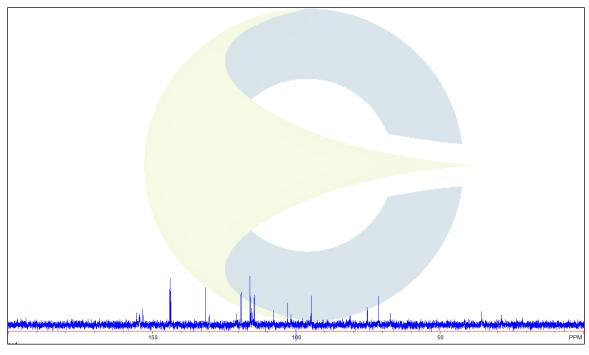




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¹³C-NMR SPECTRUM PROCYANIDIN B1 (CDXP-22-00303) IN D₂O





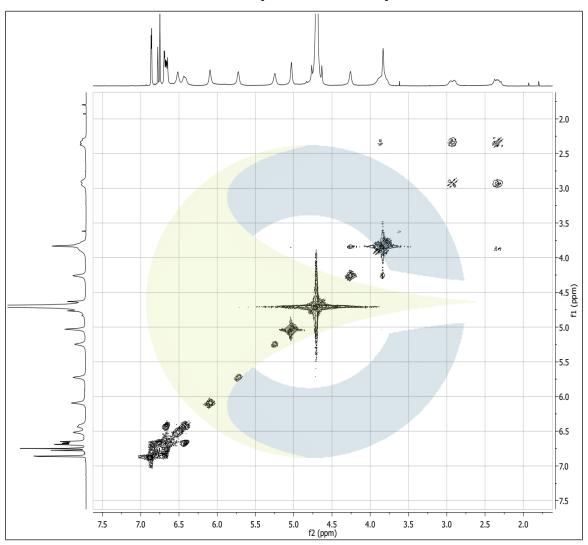




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COSY-NMR SPECTRUM OF PROCYANIDIN B1 (CDXP-22-00303) IN D2O



REVISION HISTORY

Revision History	<u>Date of Revision</u>	Document/Changes
00	05/10/2022	New report