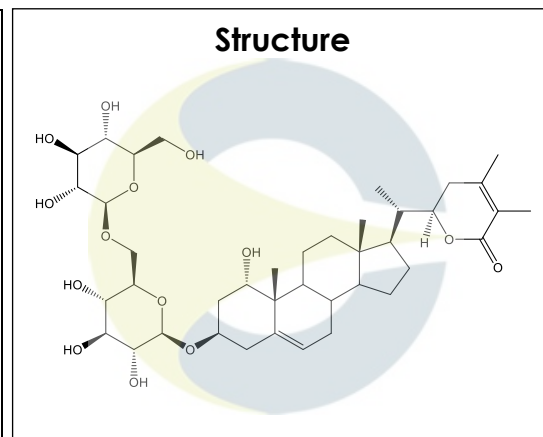


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PRODUCT NAME	Withanoside V
PART NUMBER	00023254
STANDARD TYPE	Primary (P)
LOT NUMBER	00023254-76C
REPORT NUMBER	CDXA-RSS-10143-00
SAMPLE NUMBER	CHA203042
DATE OF SAMPLE	20Mar2023
DATE OF REPORT	26Apr2023



CHEMICAL NAMES	(1 α ,3 β ,22R)- 3-[(6-O- β -D-Glucopyranosyl- β -D-glucopyranosyl)oxy]-1,22-dihydroxy- ergosta-5,24-dien-26-oic acid δ -lactone
CHEMICAL FORMULA	C ₄₀ H ₆₂ O ₁₄
MOLECULAR WEIGHT (MW)	766.91
CHEMICAL FAMILY	Triterpenes
CAS NUMBER	[256520-90-8]
EC#(EINECS)	NA
RTECS	NA

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	94.3%
HPLC	0.700.10.2.METH22	≥ 90%	96.6%
NMR	0.700.12.4	Conforms to structure	Conforms to structure
Mass Spectrum	0.700.12.27	Conforms	Conforms
Residual Solvent*	USP <467>	NA	Methanol – 12,100 ppm
Water	0.700.12.37	NA	1.2%
Appearance	NA	NA	White powder

*Testing performed at an ISO 17025 accredited subcontracted laboratory.
 ADJUSTED PURITY: 94.3% IS BASED ON (100 - 1.2 SOLVENTS - 1.2 WATER) X 96.6% HPLC

STORAGE CONDITIONS

STORAGE	+4 °C in a dry place.
EXPIRATION DATE	03/2028 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;

Minutes	%A	%B
0.0	95	5
5.0	95	5
25.0	5	95
40.0	5	95
41.0	95	5

COLUMN TEMP. 60 °C

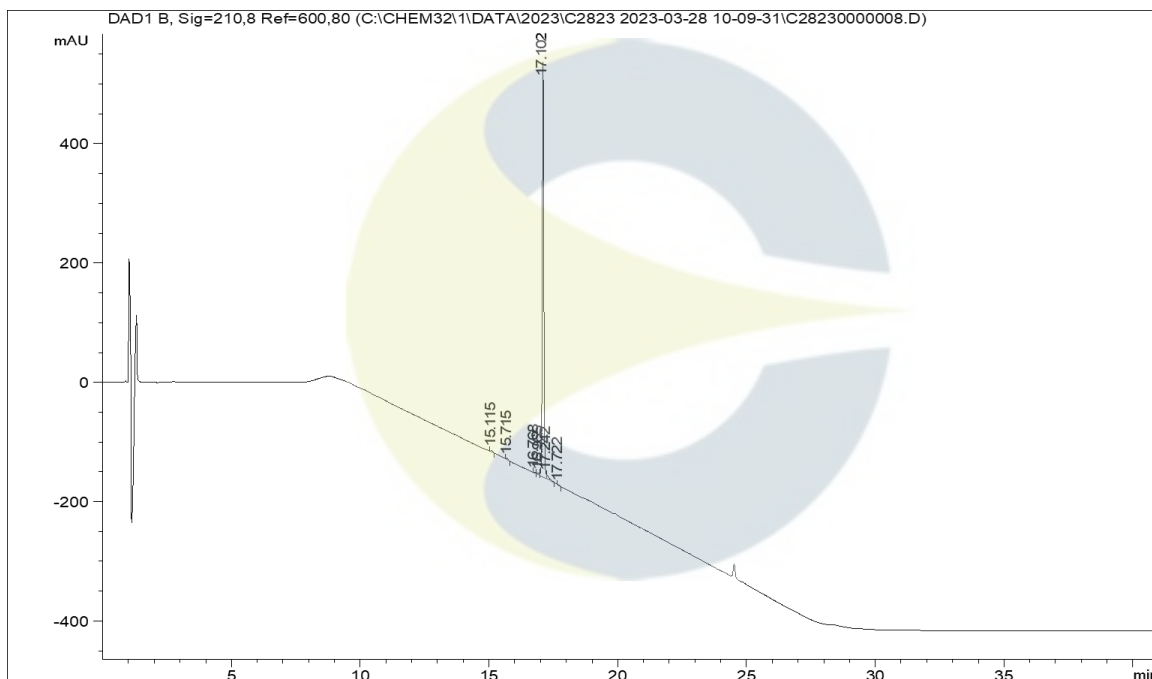
FLOW RATE 0.4 mL/minute

INJECTION VOL. 2.0 µL

INJECTION CONC. 1.0 mg/mL in Methanol

DETECTION 210 ± 4 nm

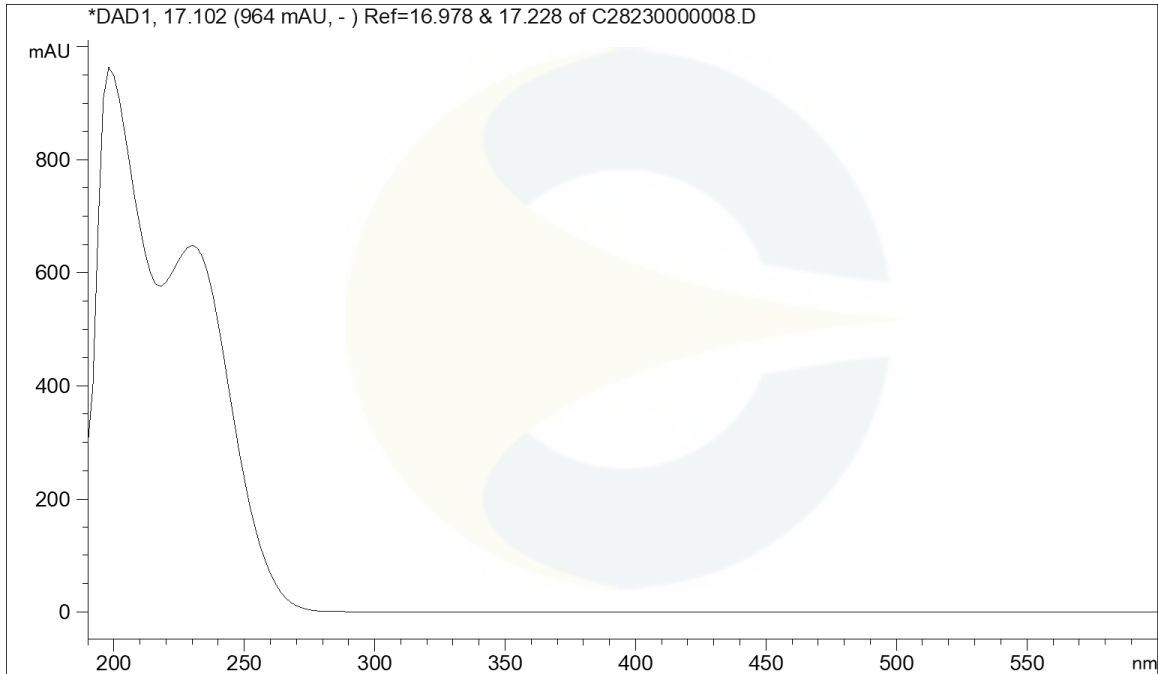
HPLC CHROMATOGRAM OF WITHANOSIDE V (00023254-76C)



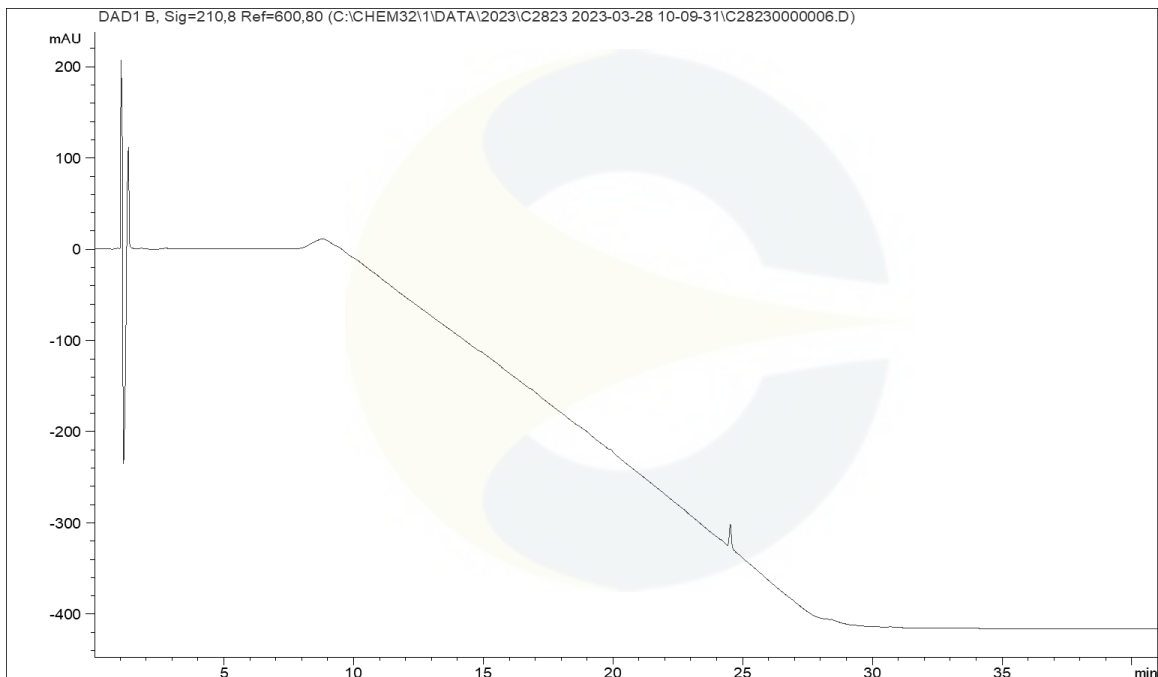
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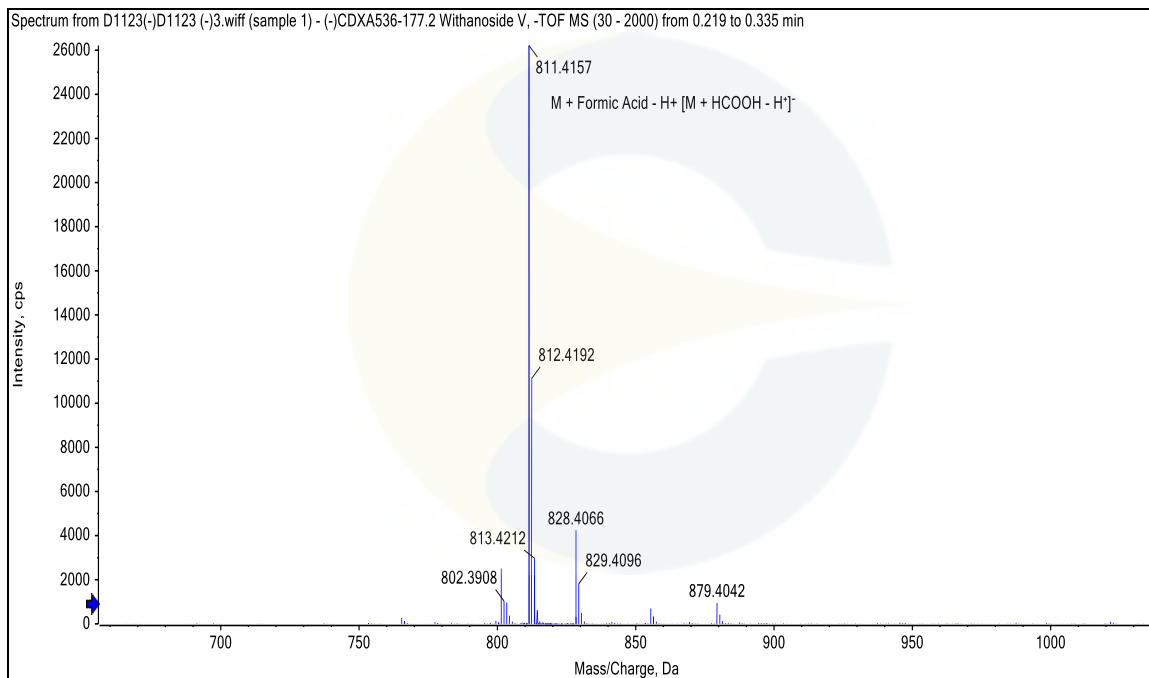
UV SPECTRUM AT RT = 17.1 MINUTES



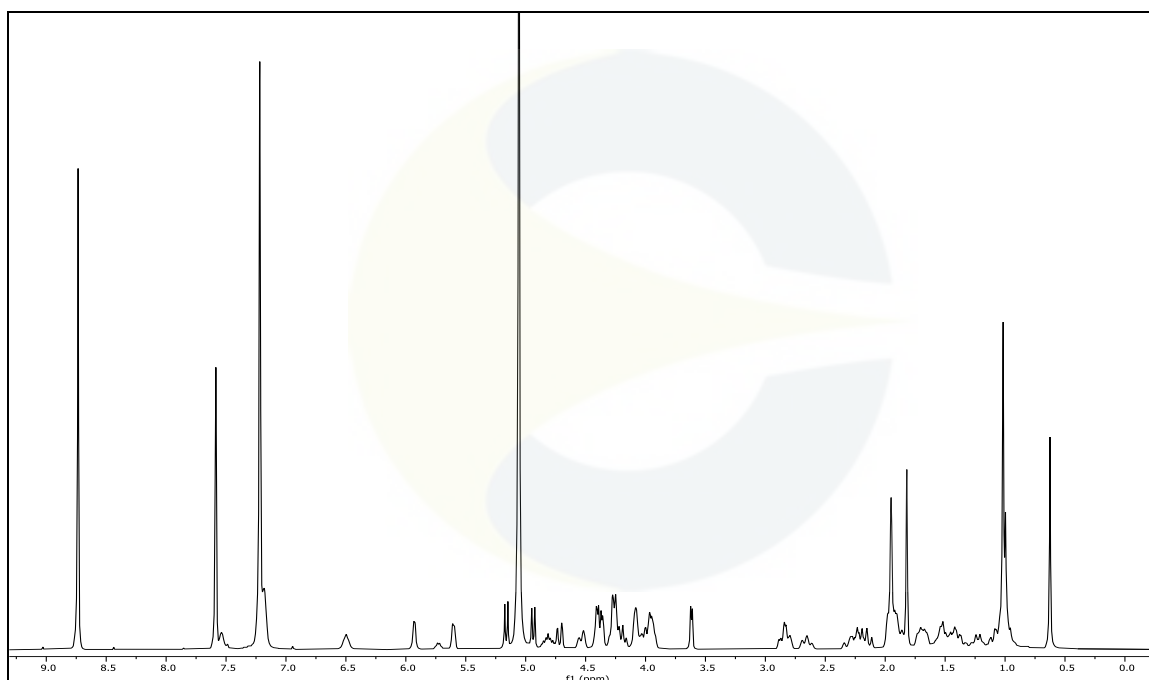
HPLC CHROMATOGRAM OF DILUENT BLANK



MASS SPECTRUM OF WITHANOSIDE V (00023254-76C)



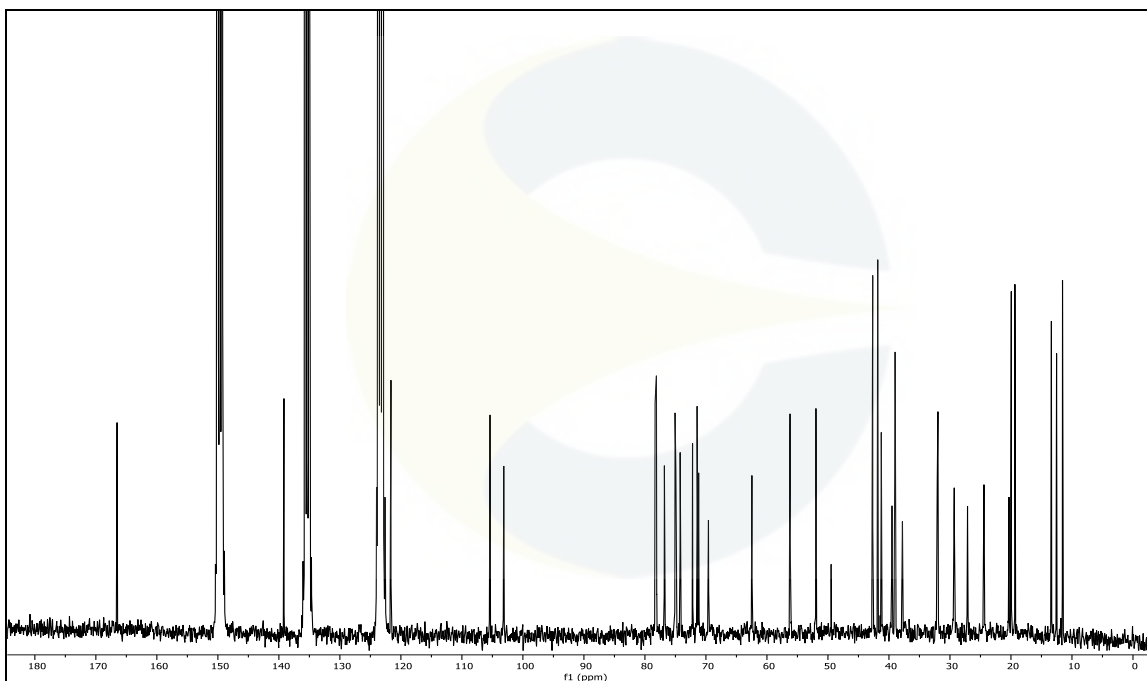
¹H-NMR SPECTRUM OF WITHANOSIDE V (00023254-76C) IN PYRIDINE-d₅

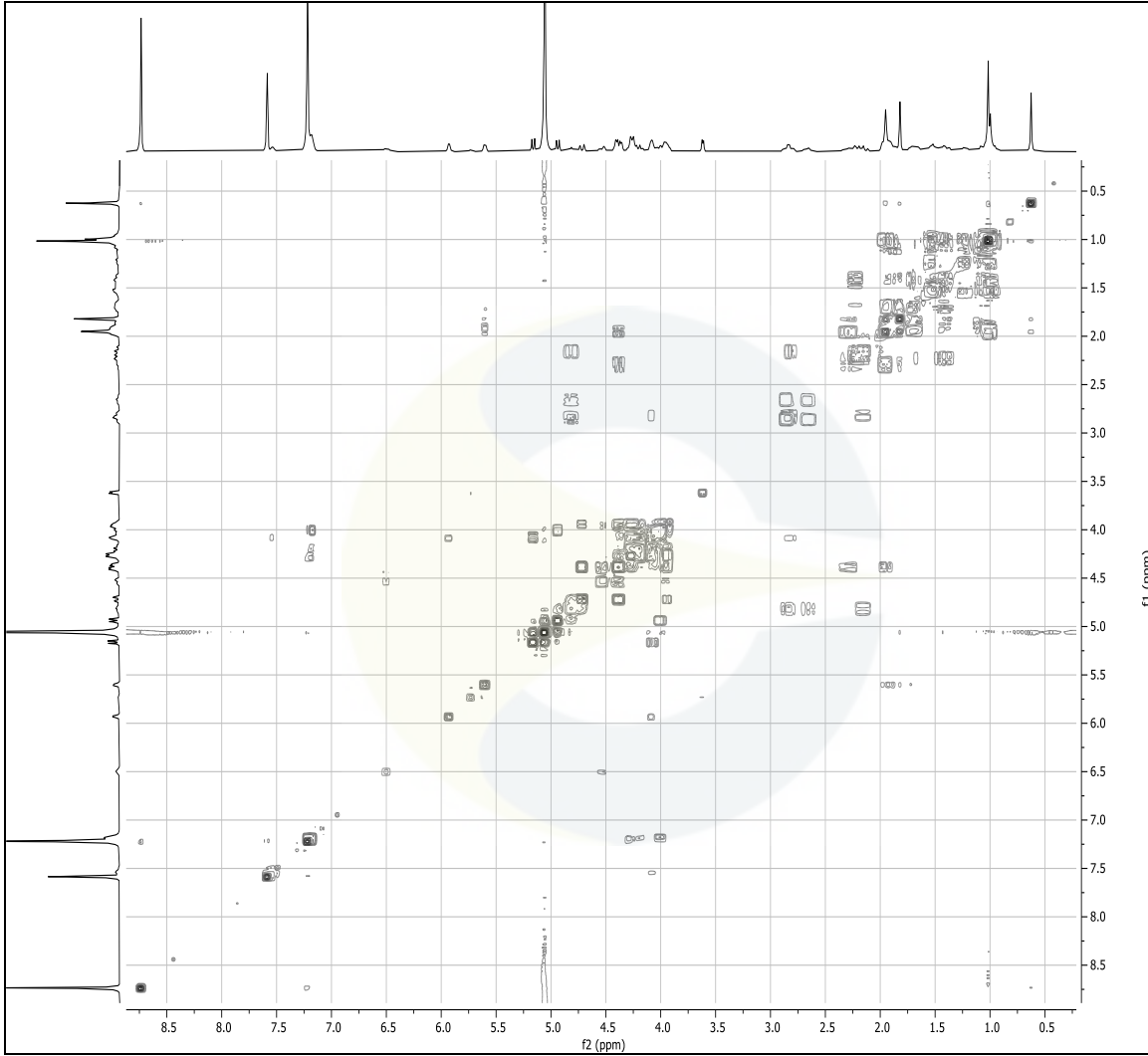


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¹³C-NMR SPECTRUM WITHANOSIDE V (00023254-76C) IN PYRIDINE-d₅



COSY-NMR SPECTRUM OF WITHANOSIDE V (00023254-76C) IN PYRIDINE-d₅

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	26Apr2023	New report