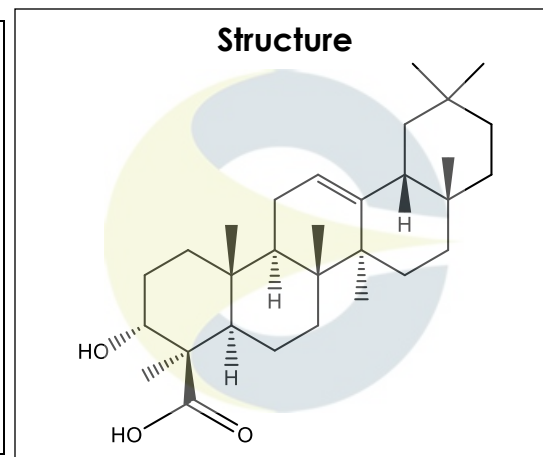


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PRODUCT NAME	alpha-Boswellic acid
PART NUMBER	00002550
STANDARD TYPE	Primary (P)
LOT NUMBER	00002550-007
REPORT NUMBER	CDXA-RSS-9128-00
SAMPLE NUMBER	CDXP-20-00629
DATE OF SAMPLE	08/26/2020
DATE OF REPORT	09/14/2020



CHEMICAL NAMES	(3 α ,4 β)-3-Hydroxy-olean-12-en-23-oic acid
CHEMICAL FORMULA	C ₃₀ H ₄₈ O ₃
MOLECULAR WEIGHT (MW)	456.70
CHEMICAL FAMILY	Triterpenes
CAS NUMBER	[471-66-9]
EC#(EINECS)	N/A
RTECS	RK0177963

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	89.2%
HPLC	0.700.10.2.METH22	≥ 90%	93.8%
NMR	0.700.12.4	Conforms to structure	Conforms to structure
Mass Spectrum	0.700.12.27	Conforms	Conforms
Residual Solvent*	USP <467>	NA	ND
Water	0.700.12.37	NA	4.9%
Appearance	NA	NA	White powder

*Testing performed at an ISO 17025 accredited subcontracted laboratory.

ADJUSTED PURITY: 89.2% IS BASED ON (100 - 0.0 SOLVENTS - 4.9 WATER) X 93.8% HPLC

STORAGE CONDITIONS

STORAGE	-20 °C in a dry place.
EXPIRATION DATE	08/2025 under the above conditions.

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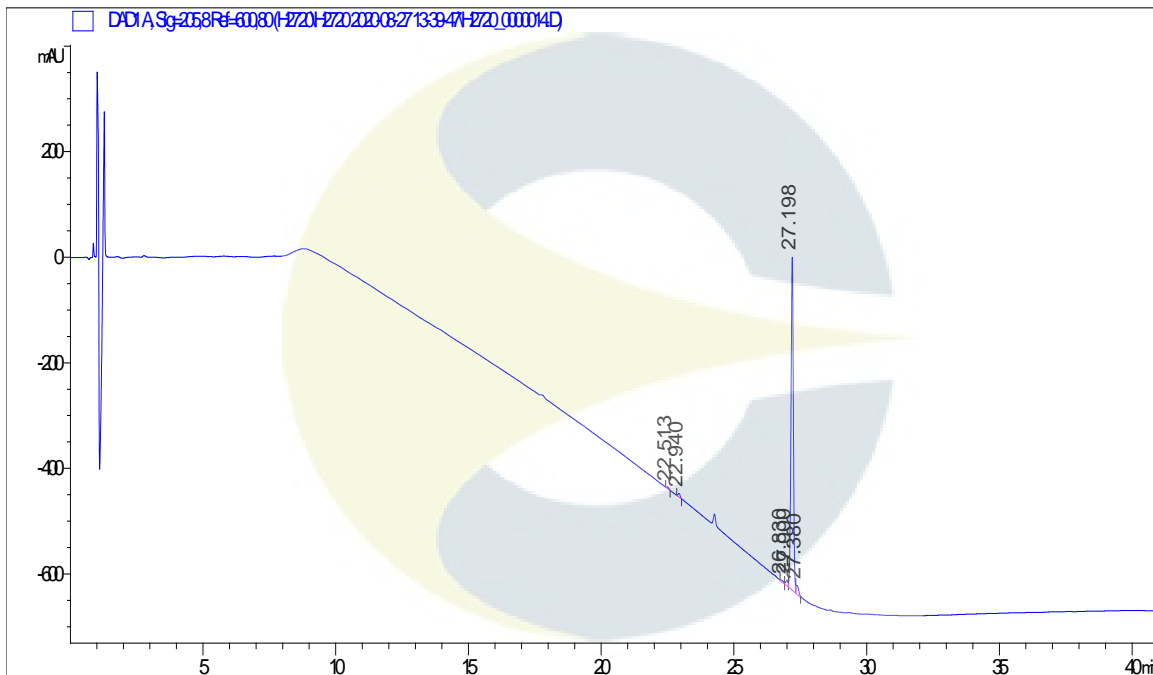
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ANALYTICAL CONDITIONS

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.	2.0 µL
INJECTION CONC.	1.1 mg/mL in Methanol
DETECTION	205 ± 4 nm

HPLC CHROMATOGRAM OF ALPHA-BOSWELLIC ACID (CDXP-20-00629)

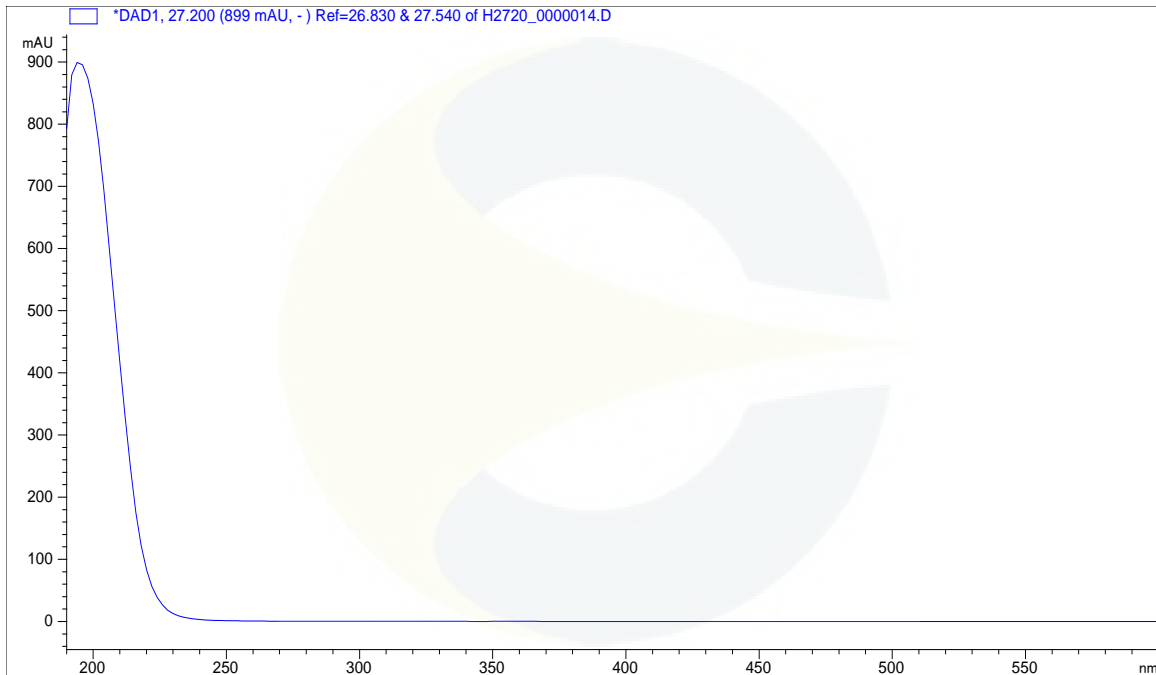


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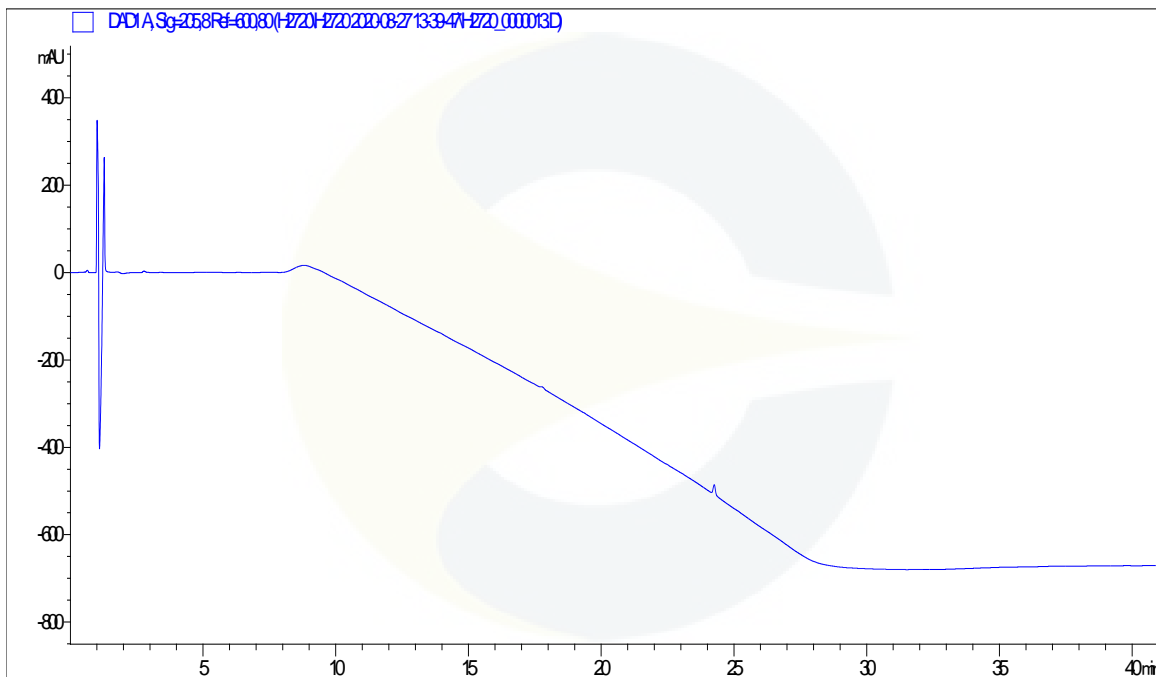
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UV SPECTRUM AT RT 27.2 MINUTES

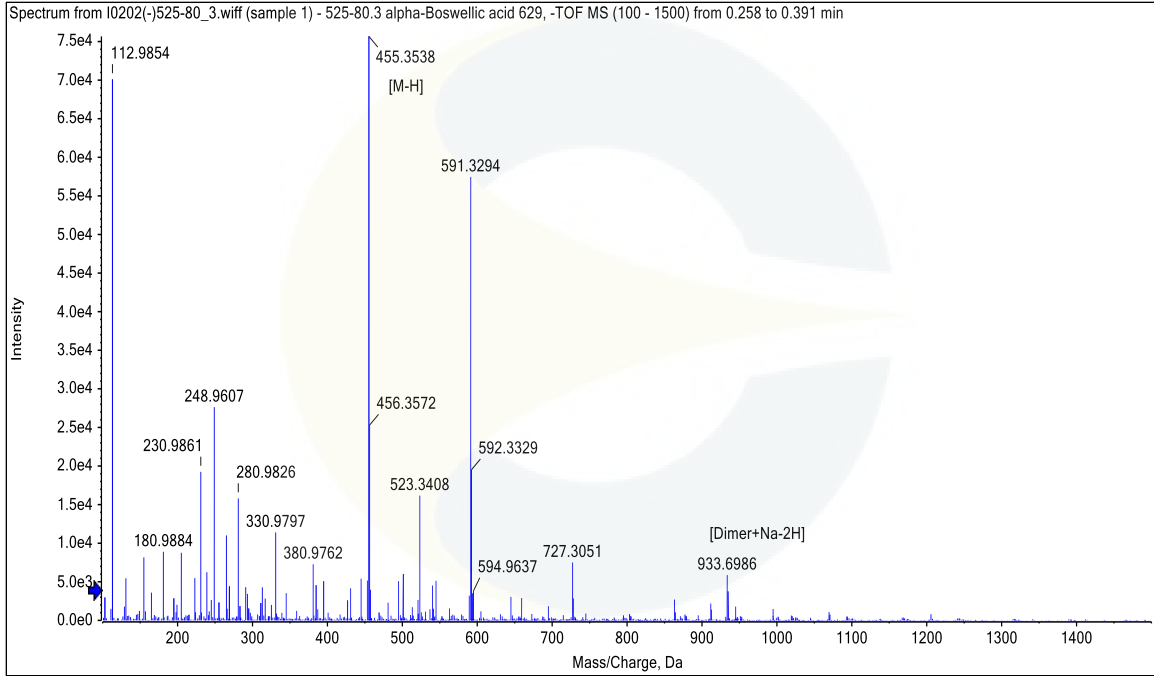


HPLC CHROMATOGRAM OF DILUENT BLANK

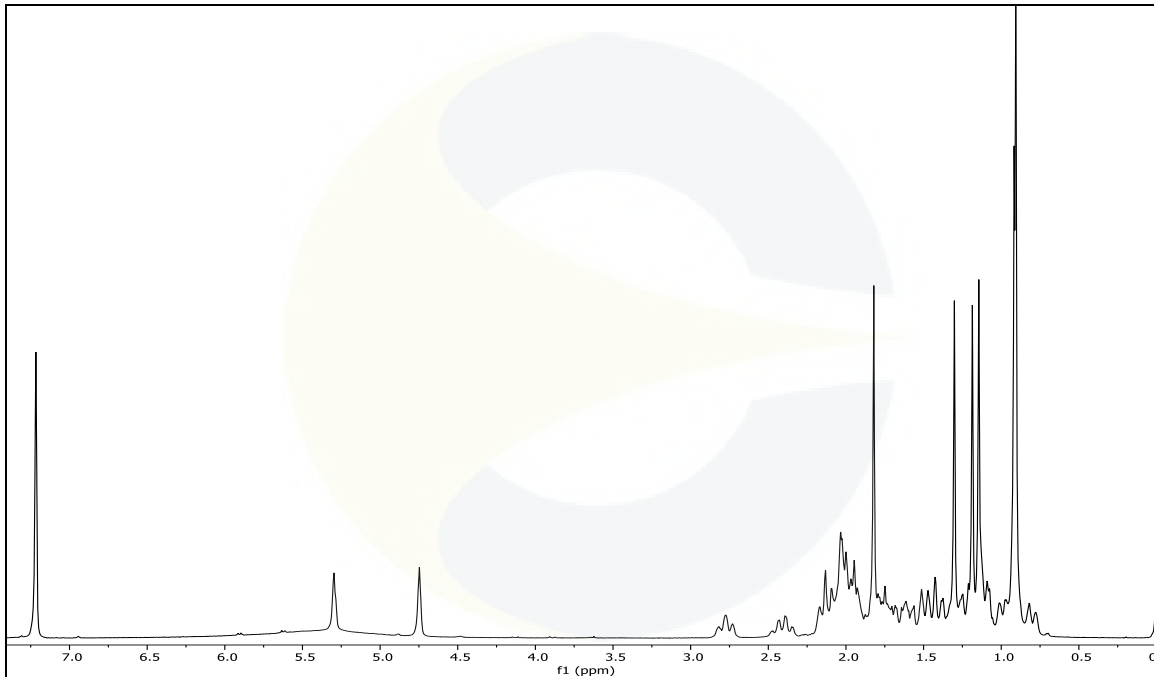


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MASS SPECTRUM OF ALPHA-BOSWELLIC ACID (CDXP-20-00629)

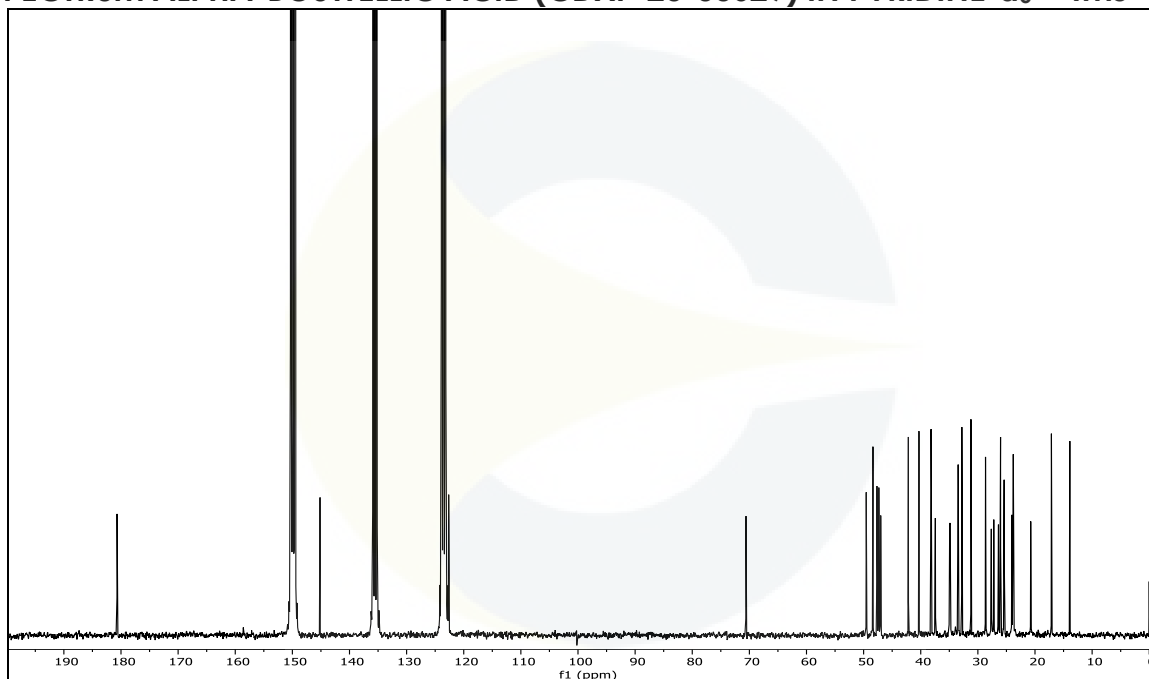


¹H-NMR SPECTRUM OF ALPHA-BOSWELLIC ACID (CDXP-20-00629) IN PYRIDINE-d₅ + TMS

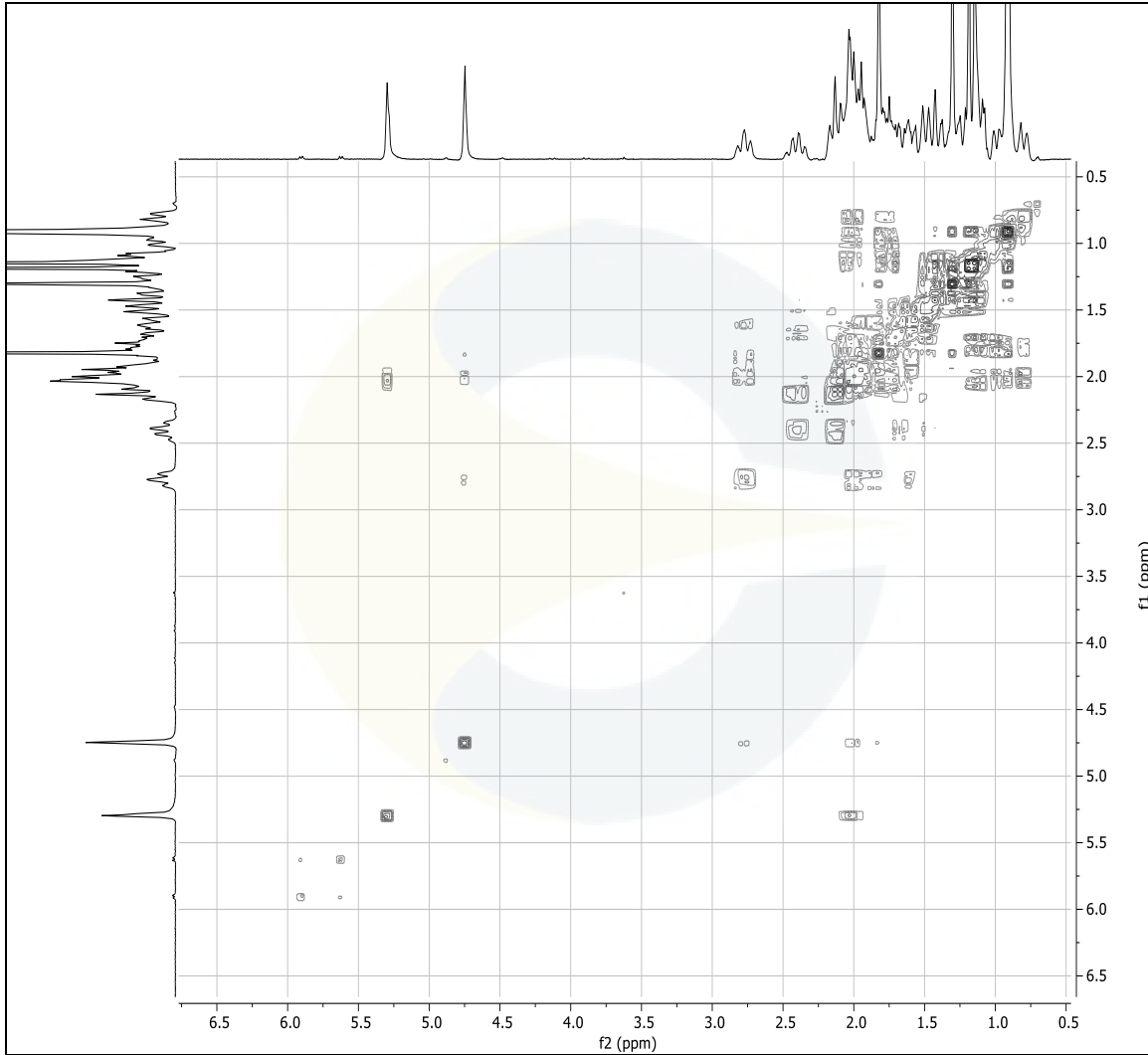


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¹³C-NMR SPECTRUM ALPHA-BOSWELLIC ACID (CDXP-20-00629) IN PYRIDINE-d₅ + TMS



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COSY-NMR SPECTRUM OF ALPHA-BOSWELLIC ACID (CDXP-20-00629) IN PYRIDINE-*d*₅ + TMS

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	09/14/2020	New report

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