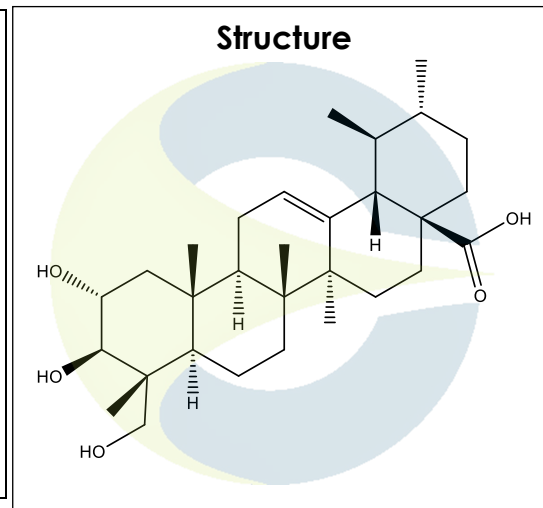


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PRODUCT NAME	Asiatic acid
PART NUMBER	00011028
STANDARD TYPE	Primary (P)
LOT NUMBER	00011028-112
REPORT NUMBER	CDXA-RSS-8095-01
SAMPLE NUMBER	CDXP-18-00556
DATE OF SAMPLE	06/11/2018
DATE OF RE-EVALUATION	05/03/2022
DATE OF REPORT	06/01/2022



CHEMICAL NAMES	(2 α ,3 β ,4 α)-2,3,23-Trihydroxy-urs-12-en-28-oic acid; 2 α ,23-Dihydroxyursolic acid; Dammarolic acid
CHEMICAL FORMULA	C ₃₀ H ₄₈ O ₅
MOLECULAR WEIGHT (MW)	488.70
CHEMICAL FAMILY	Triterpenes
CAS NUMBER	[464-92-6]
EC#(EINECS)	482-720-9
RTECS	YU9580000

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	94.4%
HPLC	0.700.10.2.METH22	≥ 90%	99.5%
NMR	99.1-04-2.0-000122	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	EtOH < 0.1%; EtOAc < 0.1%; THF < 0.1%; Toluene < 0.1%
Water	0.700.12.37	NA	5.1%
Appearance	NA	NA	White powder

*Testing performed at an ISO 17025 accredited subcontracted laboratory.

ADJUSTED PURITY: 94.4% IS BASED ON (100 - 0.0 SOLVENTS - 5.1 WATER) X 99.5% HPLC

STORAGE CONDITIONS

STORAGE	+4 °C in a dry place.
EXPIRATION DATE	05/2027 under the above conditions.

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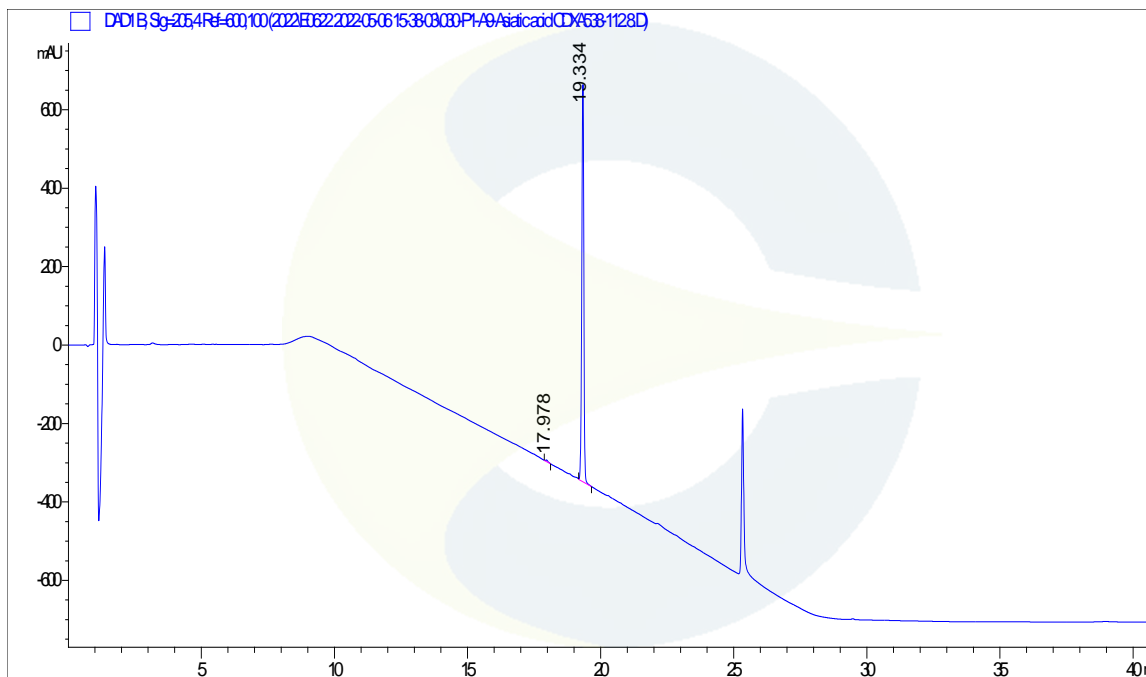
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ANALYTICAL CONDITIONS

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.	4.0 µL
INJECTION CONC.	1.0 mg/mL in Methanol
DETECTION	205 ± 2 nm

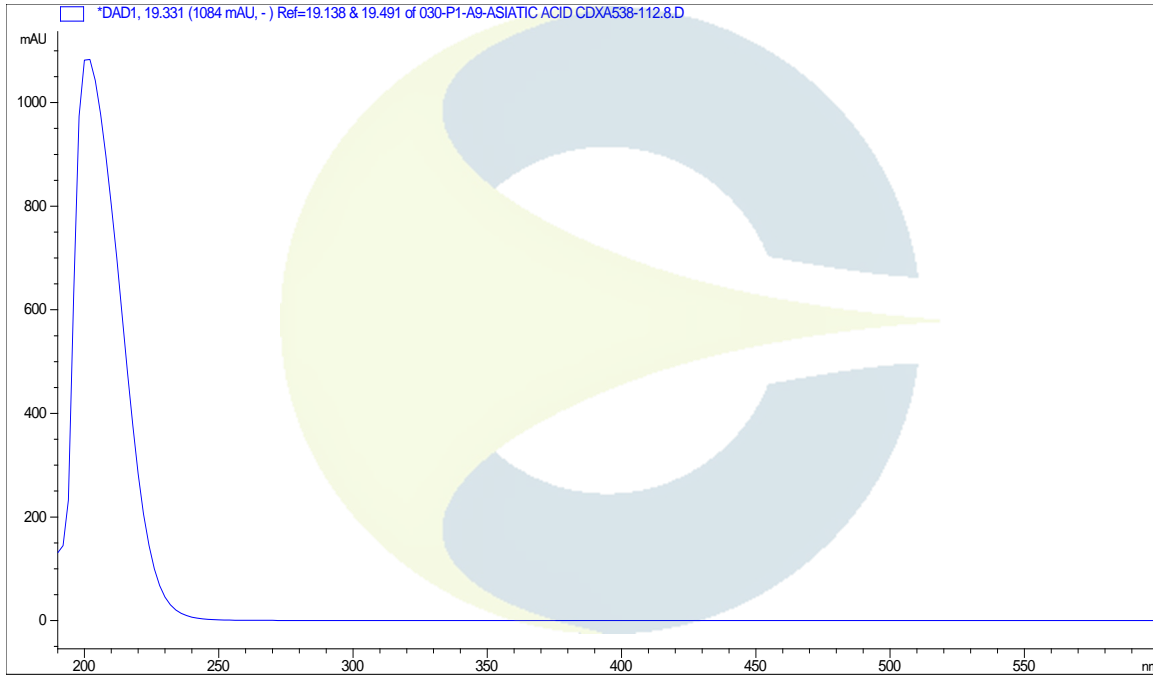
HPLC CHROMATOGRAM OF ASIATIC ACID (CDXP-18-00556)



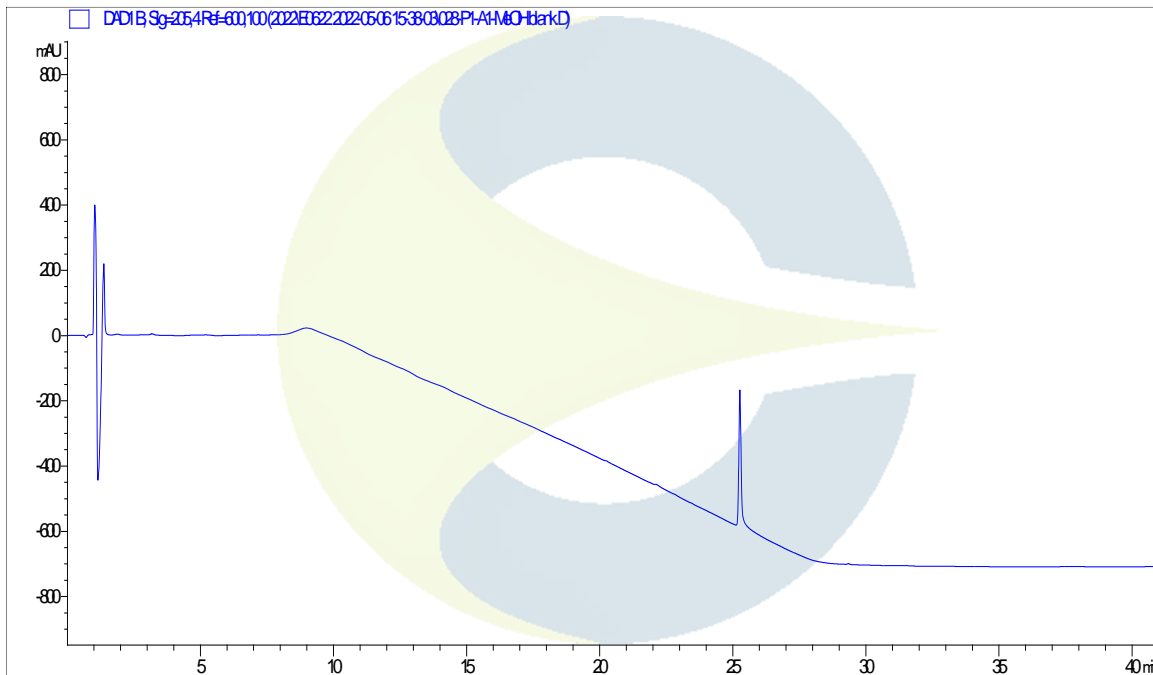
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UV SPECTRUM AT RT = 19.3 MINUTES

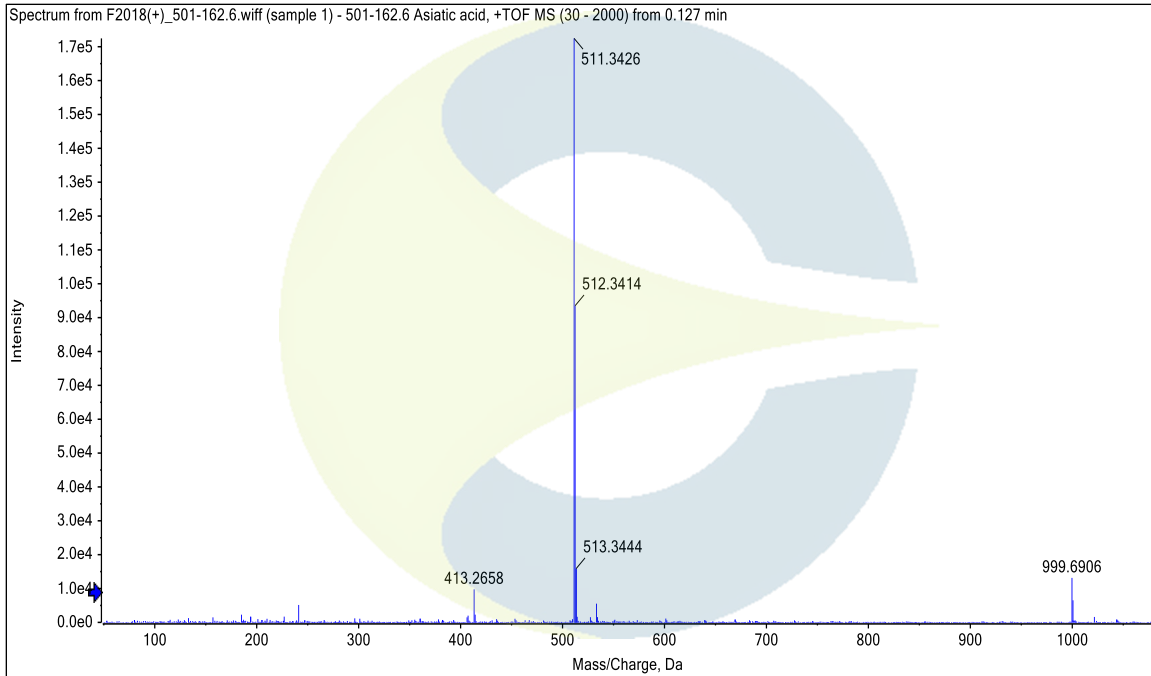


HPLC CHROMATOGRAM OF DILUENT BLANK

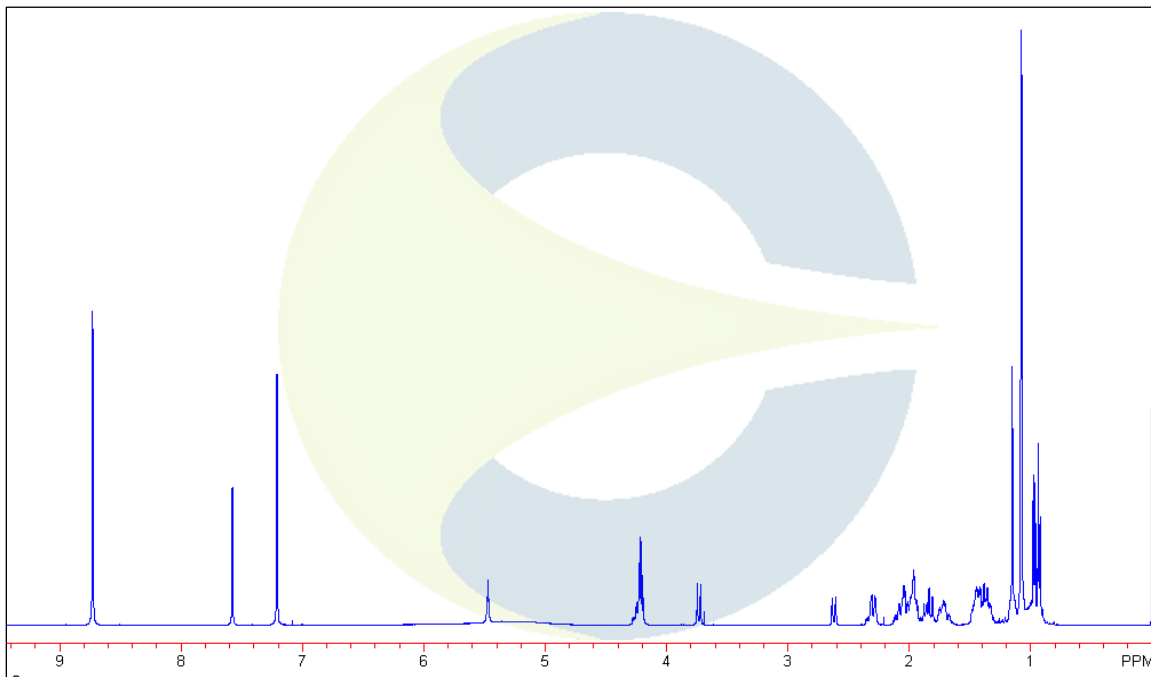


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MASS SPECTRUM OF ASIATIC ACID (CDXP-18-00556)

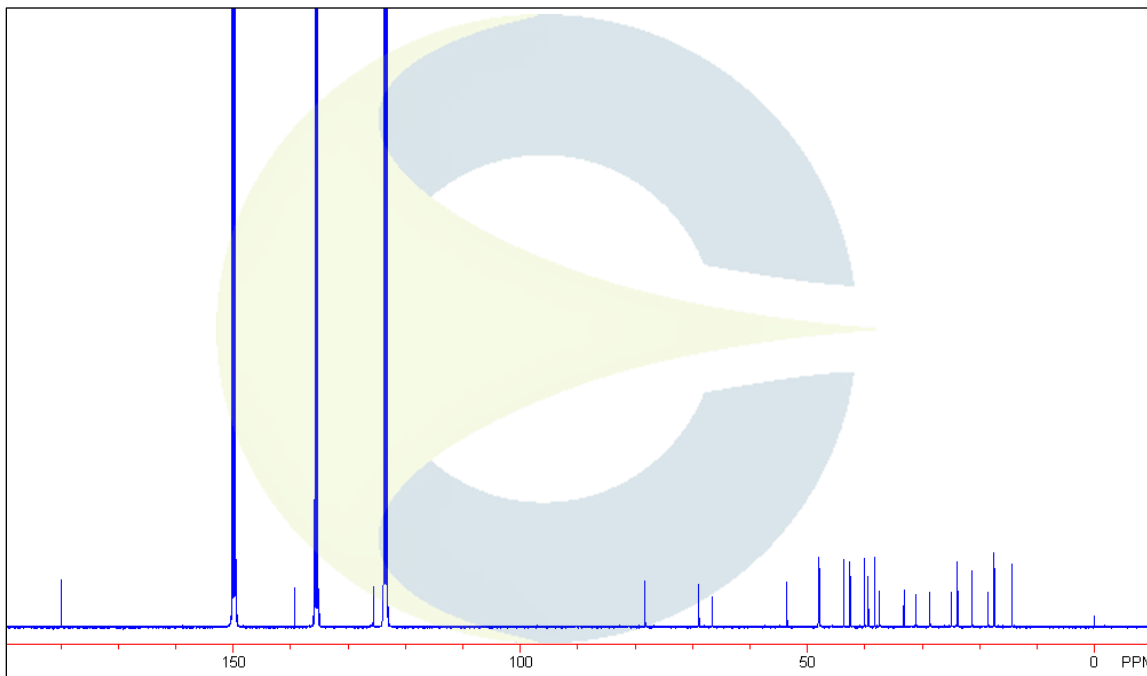


¹H-NMR SPECTRUM OF ASIATIC ACID (CDXP-18-00556) IN PYRIDINE-d₅

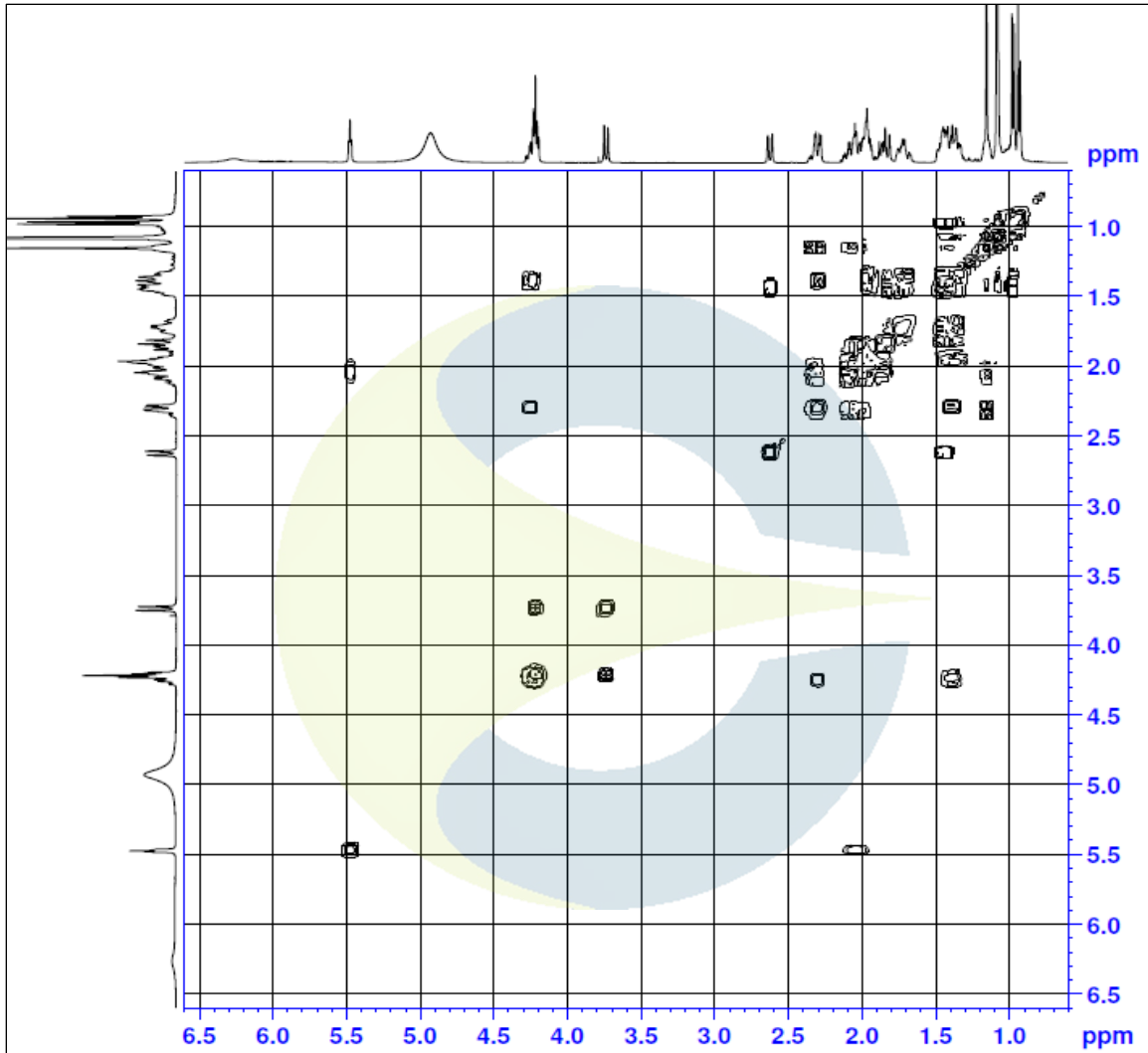


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¹³C-NMR SPECTRUM OF ASIATIC ACID (CDXP-18-00556) IN PYRIDINE-d₅



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COSY-NMR SPECTRUM OF ASIATIC ACID (CDXP-18-00556) IN PYRIDINE-*d*₅

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	07/06/2018	New report
01	06/01/2022	Passed re-evaluation by HPLC and KF. Updated analytical results, conditions, chromatograms, and expiration date.

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