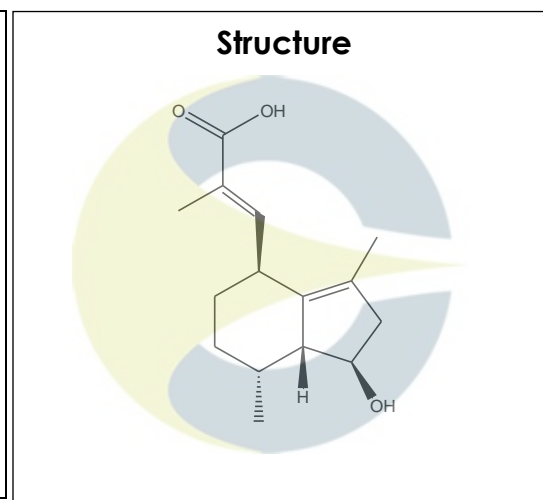


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PRODUCT NAME	Hydroxyvalerenic acid
PART NUMBER	00008730
STANDARD TYPE	Primary (P)
LOT NUMBER	00008730-301
REPORT NUMBER	CDXA-RSS-8006-01
SAMPLE NUMBER	CDXP-18-00393
DATE OF SAMPLE	04/30/2018
DATE OF RE-EVALUATION	03/11/2022
DATE OF REPORT	04/05/2022



CHEMICAL NAMES	[1R-[1 α ,4 α (E),7 β ,7 $\alpha\alpha$]-3-(2,4,5,6,7,7a-Hexahydro-1-hydroxy-3,7-dimethyl-1H-inden-4-yl)-2-methyl-2-propenoic acid; Valerenolic acid
CHEMICAL FORMULA	C ₁₅ H ₂₂ O ₃
MOLECULAR WEIGHT (MW)	250.33
CHEMICAL FAMILY	Sesquiterpenes
CAS NUMBER	[1619-16-5]
EC#(EINECS)	605-271-4
RTECS	NA

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	99.9%
HPLC	0.700.10.2.METH22	≥ 90%	99.9%
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	ND
Water	0.700.12.37	NA	ND
Appearance	NA	NA	White powder

*Testing performed at an ISO 17025 accredited subcontracted laboratory.

ADJUSTED PURITY: 99.9% IS BASED ON (100 - 0.0 SOLVENTS - 0.0 WATER) X 99.9% HPLC

STORAGE CONDITIONS

STORAGE	+4 °C in a dry place.
EXPIRATION DATE	03/2027 under the above conditions.

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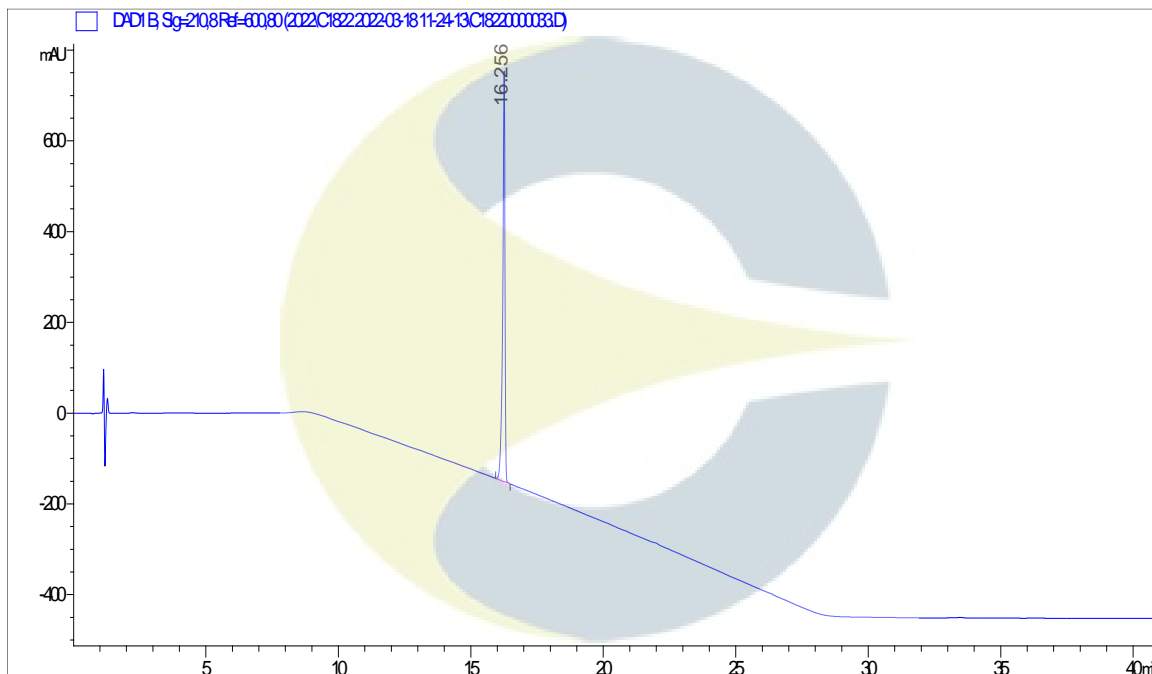
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ANALYTICAL CONDITIONS

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.
COLUMN TEMP.	60 °C
FLOW RATE	0.4 mL/minute
INJECTION VOL.	0.8 µL
INJECTION CONC.	1.0 mg/mL in Methanol
DETECTION	210 ± 4 nm

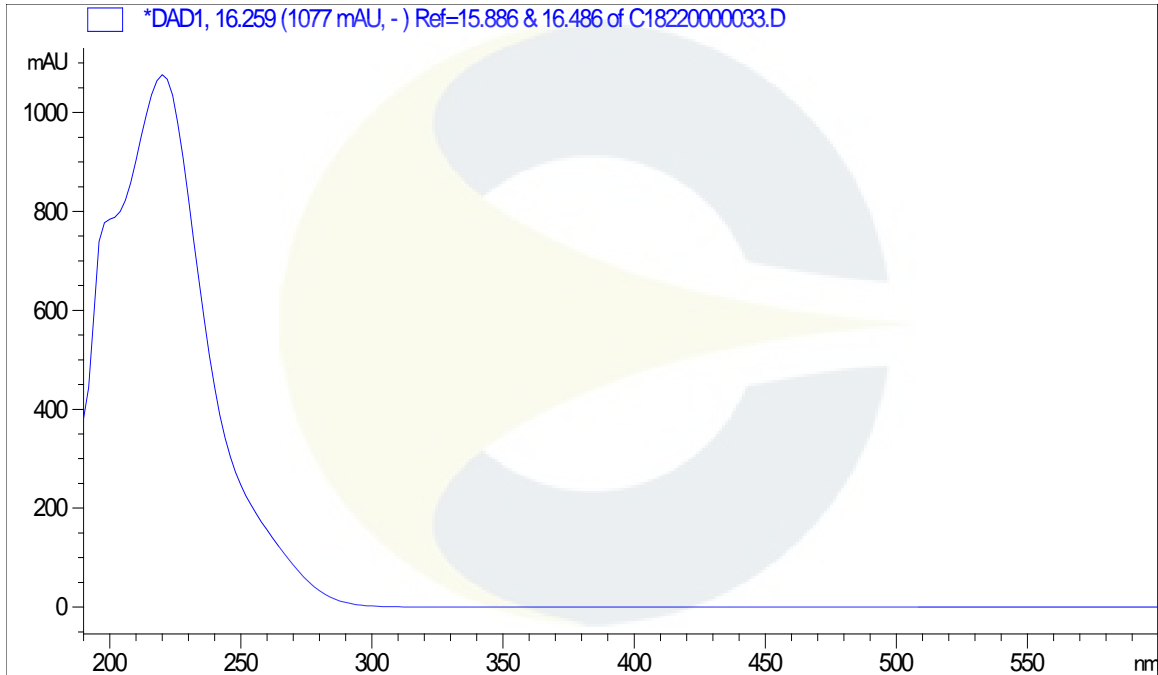
HPLC CHROMATOGRAM OF HYDROXYVALERIC ACID (CDXP-18-00393)



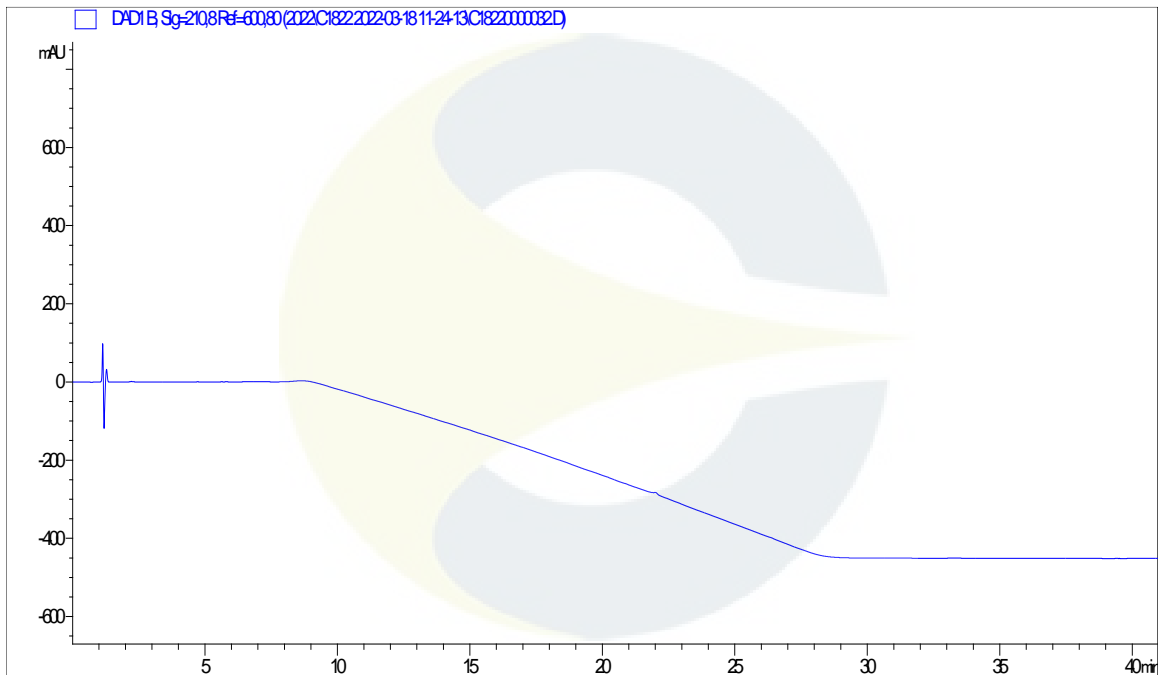
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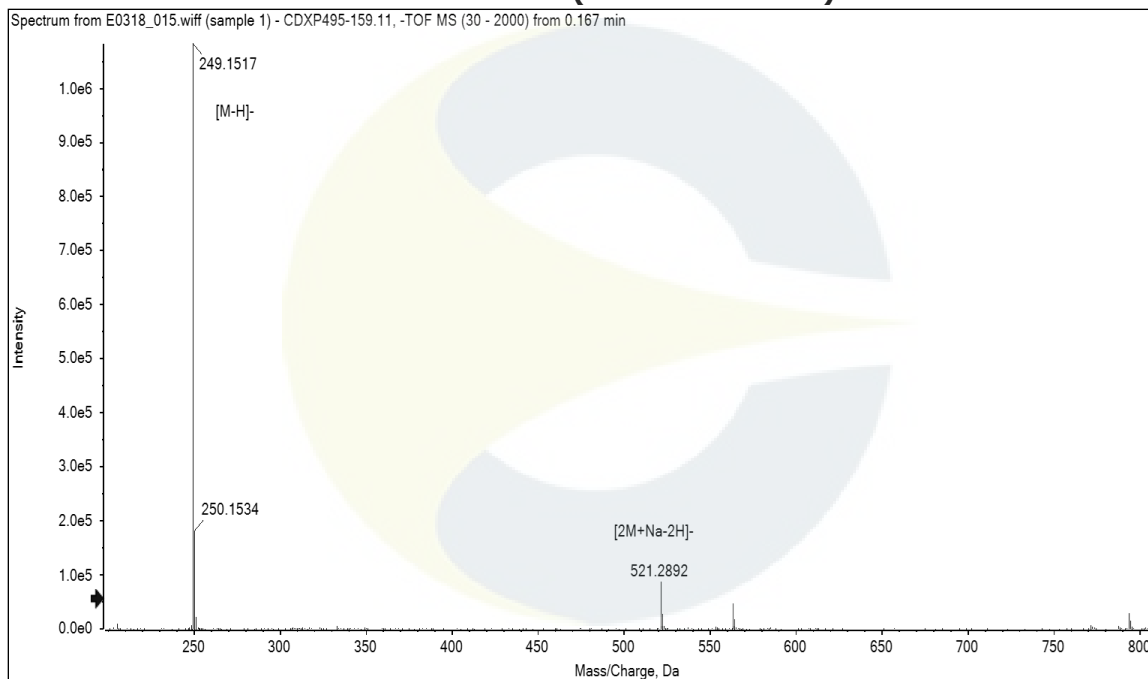
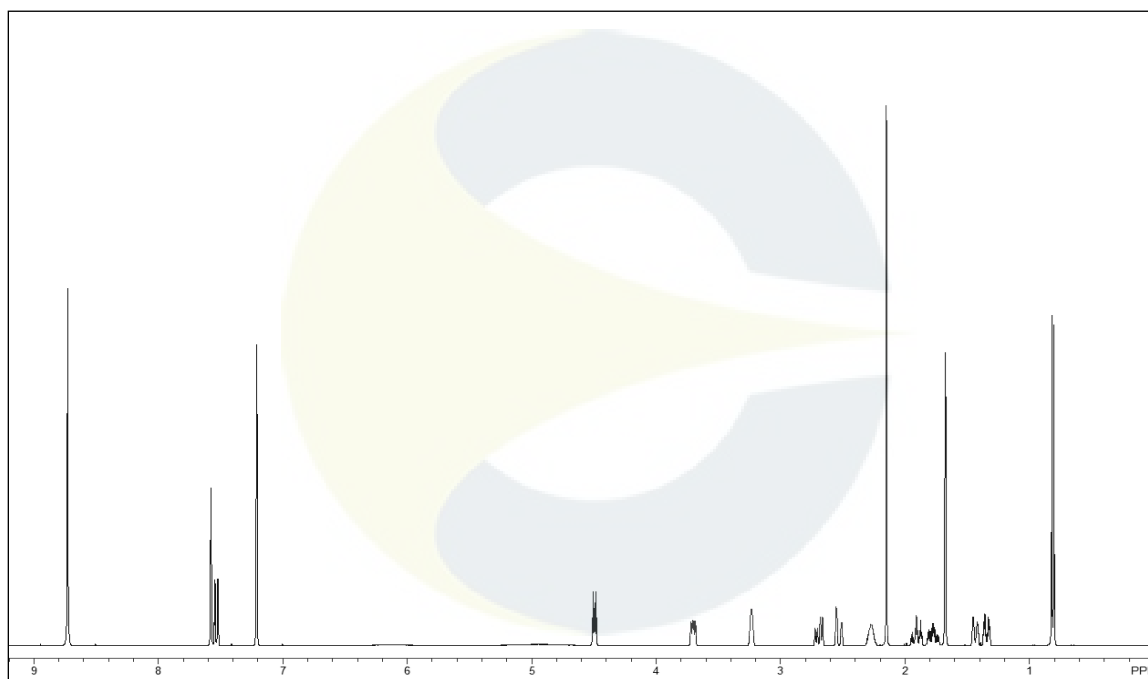
UV SPECTRUM AT RT = 16.3 MINUTES



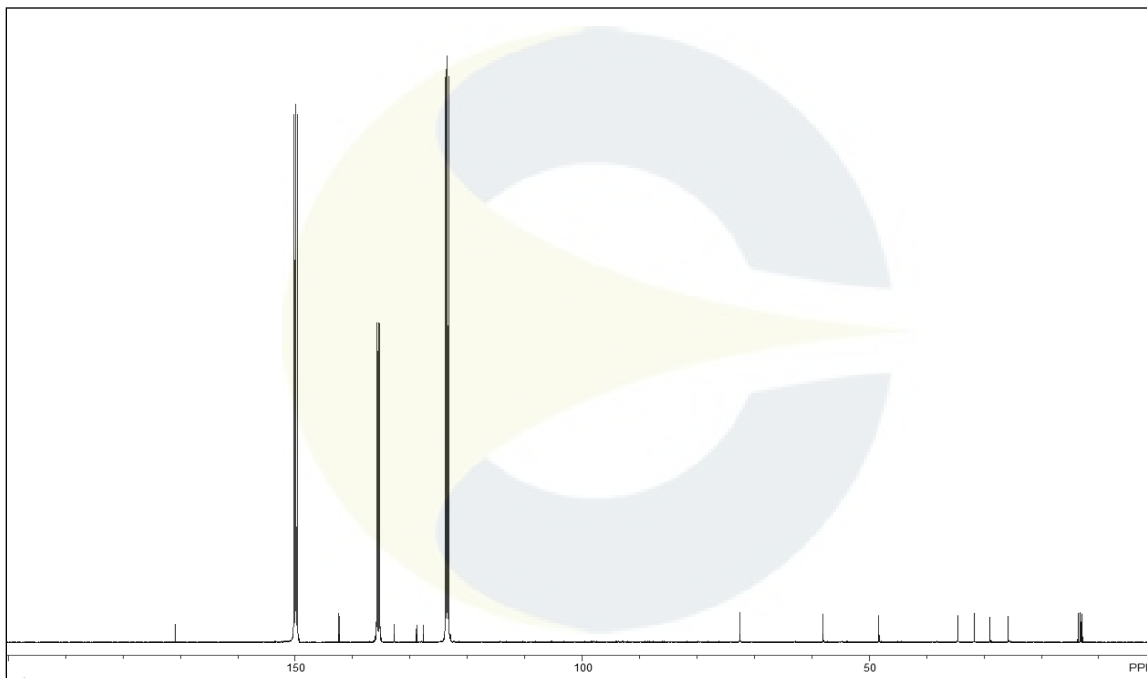
HPLC CHROMATOGRAM OF DILUENT BLANK



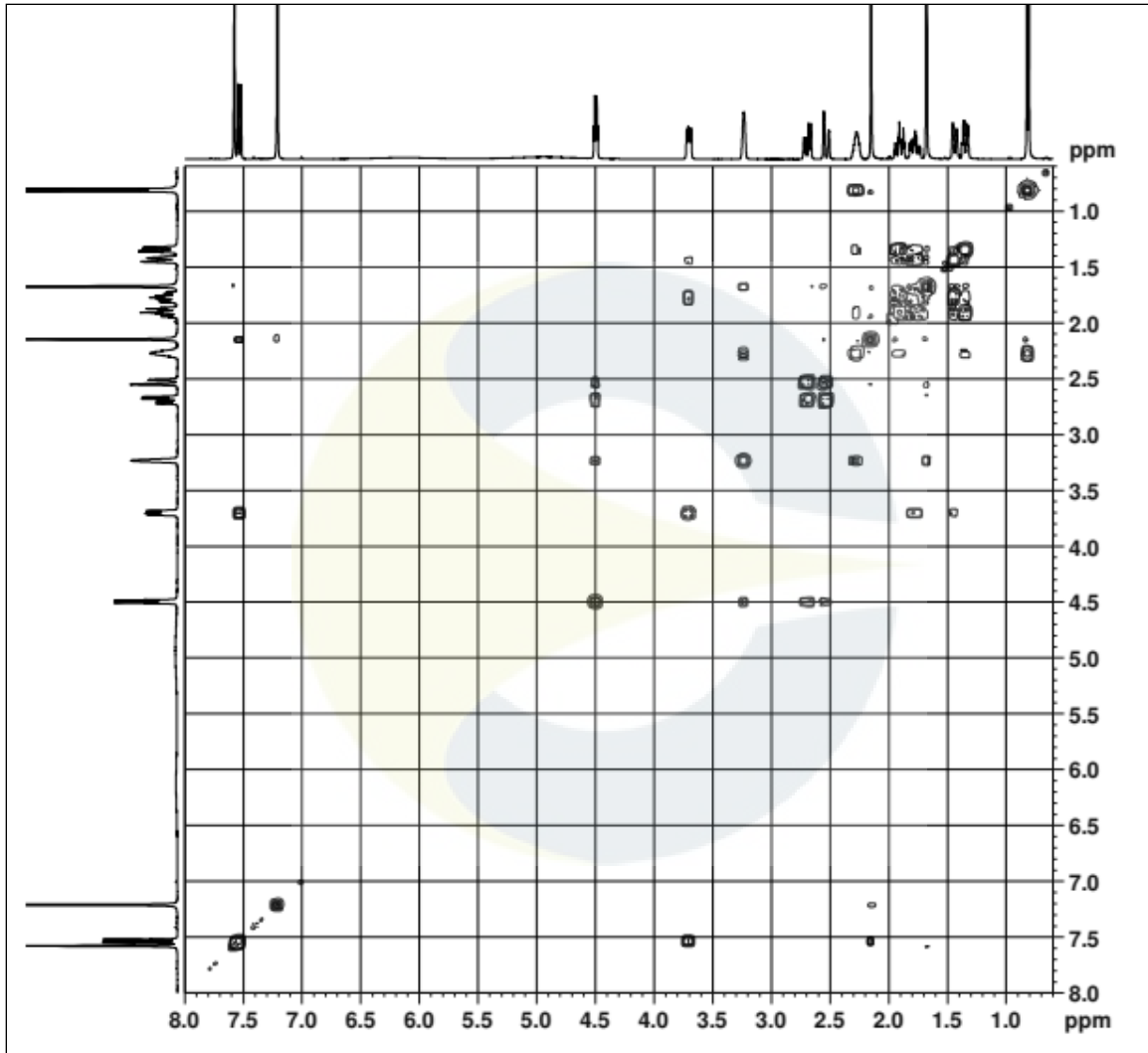
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MASS SPECTRUM OF HYDROXYVALERENIC ACID (CDXP-18-00393)

¹H-NMR SPECTRUM OF HYDROXYVALERENIC ACID (CDXP-18-00393) IN PYRIDINE-d₅


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^{13}C -NMR SPECTRUM OF HYDROXYVALERENIC ACID (CDXP-18-00393) IN PYRIDINE- d_5 

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COSY-NMR SPECTRUM OF HYDROXYVALERENIC ACID (CDXP-18-00393) IN PYRIDINE-*d*₅

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	05/18/2018	New report
01	04/05/2022	Passed re-evaluation by HPLC, KF. Updated expiration date, analytical conditions, chromatograms and results.

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