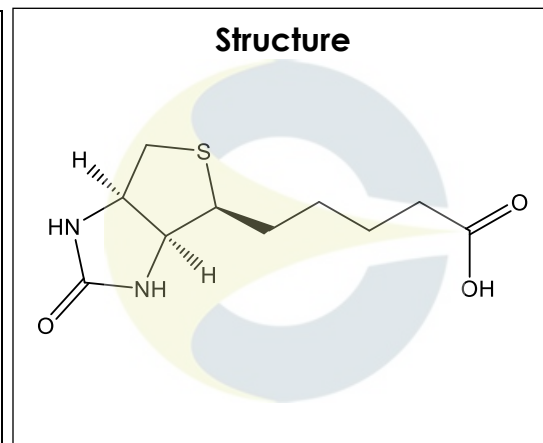


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PRODUCT NAME	Vitamin H
PART NUMBER	00022809
STANDARD TYPE	Primary (P)
LOT NUMBER	00022809-646
REPORT NUMBER	CDXA-RSS-9242-00
SAMPLE NUMBER	CDXP-20-00850
DATE OF SAMPLE	12/03/2020
DATE OF REPORT	01/13/2021



CHEMICAL NAMES	Biotin; (3aS,4S,6aR)-Hexahydro-2-oxo-1H-thieno(3,4-d)imidazole-4-pentanoic acid; D-Biotin; Coenzyme R; Vitamin B7
CHEMICAL FORMULA	C ₁₀ H ₁₆ N ₂ O ₃ S
MOLECULAR WEIGHT (MW)	244.31
CHEMICAL FAMILY	Vitamins
CAS NUMBER	[58-85-5]
EC#(EINECS)	200-399-3
RTECS	XJ9088200

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	98.3%
HPLC	0.700.10.2.METH 161	≥ 90%	98.3%
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	ND
Appearance	NA	NA	White powder

*Testing performed at an ISO 17025 accredited subcontracted laboratory.
 ADJUSTED PURITY: 98.3% IS BASED ON (100 - 0.0 SOLVENTS - 0.0 WATER) X 98.3% HPLC

STORAGE CONDITIONS

STORAGE	+4 °C in a dry place.
EXPIRATION DATE	12/2025 under the above conditions.

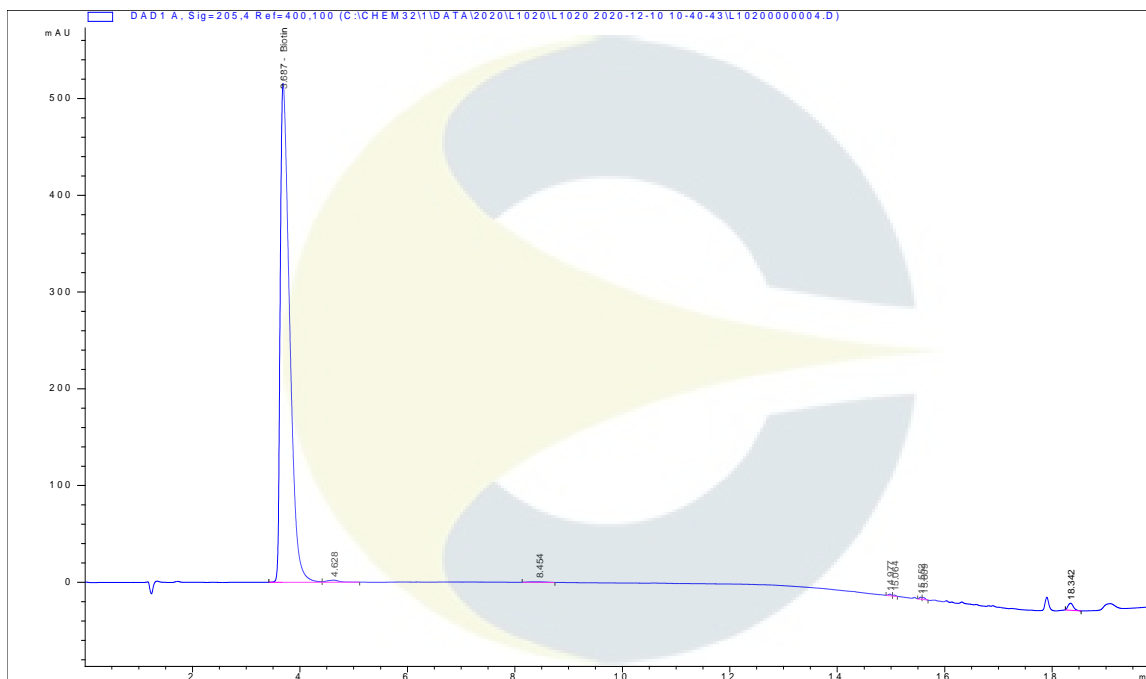
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ANALYTICAL CONDITIONS

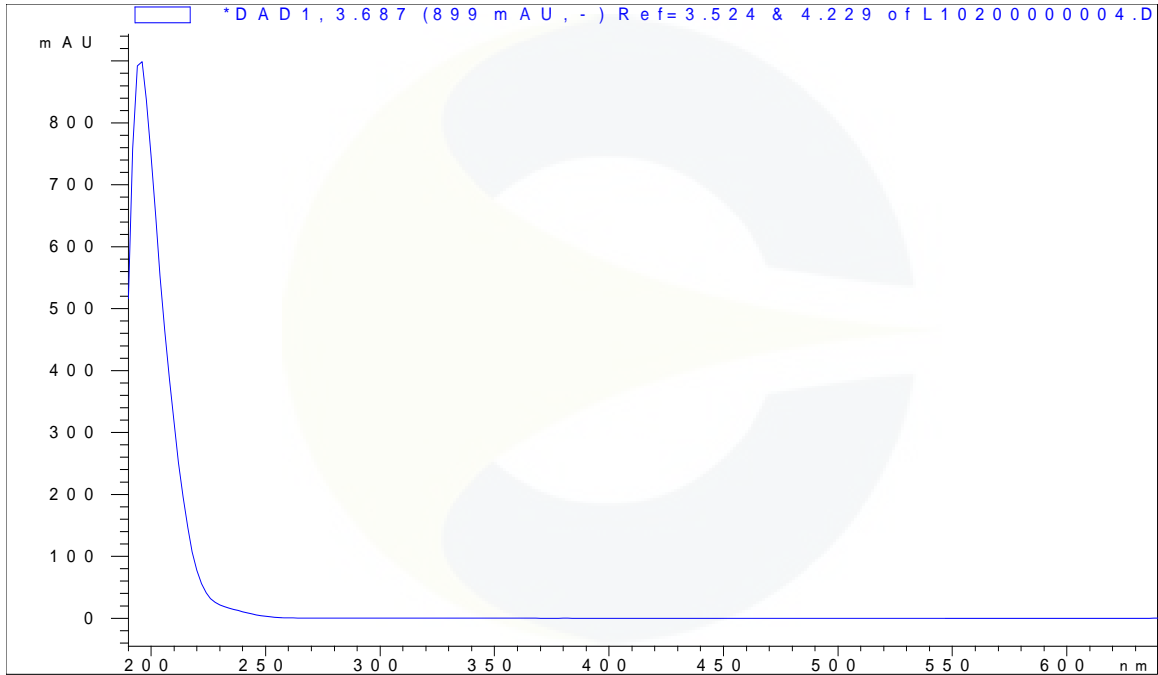
INSTRUMENT	AGILENT 1290 HPLC UV-VIS (DAD); AB-SCIEX 6600 TRIPLE TOF
COLUMN	Poroshell 120, EC-C18 ; 150 x 3 mm, 2.7 µm particle size
MOBILE PHASE	A – 25 mM Potassium Phosphate in Ultrapure water pH 7.0 B – 95:5 Acetonitrile:Water Isocratic 5% B for 5 minutes, then increasing to 7% B over 5 minutes. Increasing to 30% B over 5 minutes then decreasing to 5% B over 5 minutes.
COLUMN TEMP.	35 °C
FLOW RATE	0.5 mL/minute
INJECTION VOL.	5.0 µL
INJECTION CONC.	1.0 mg/mL in 0.01 M NaOH (Aq)
DETECTION	205 ± 4 nm

HPLC CHROMATOGRAM OF VITAMIN H (CDXP-20-00850)


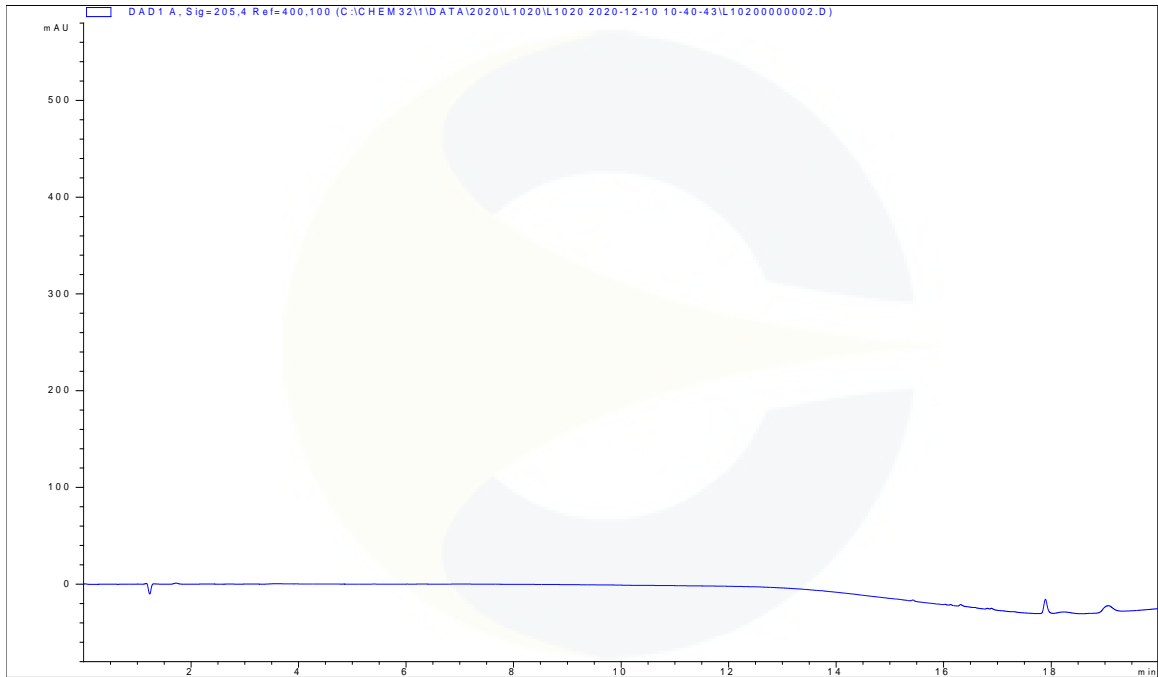
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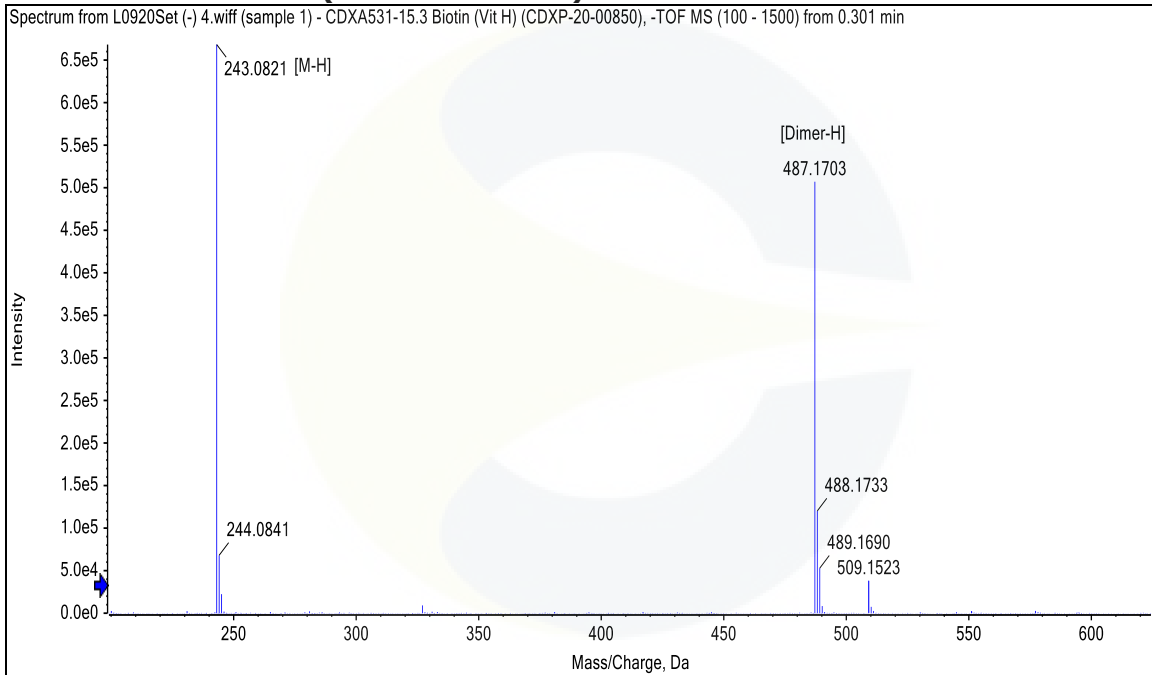
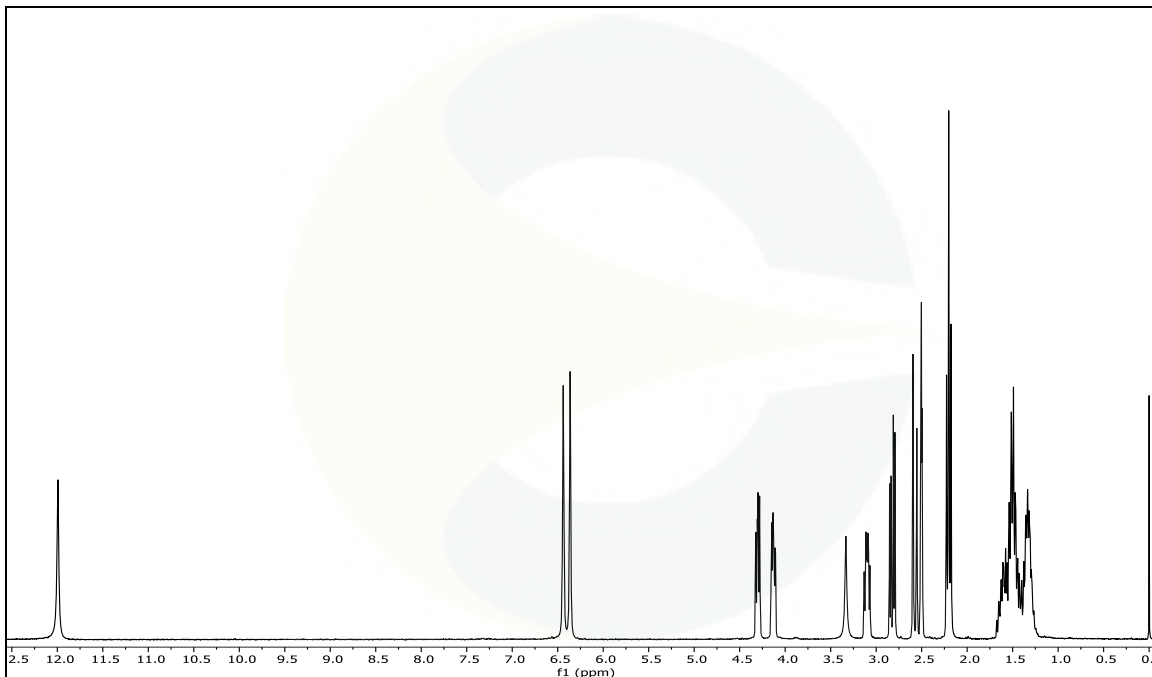
UV SPECTRUM AT 3.7 MINUTES



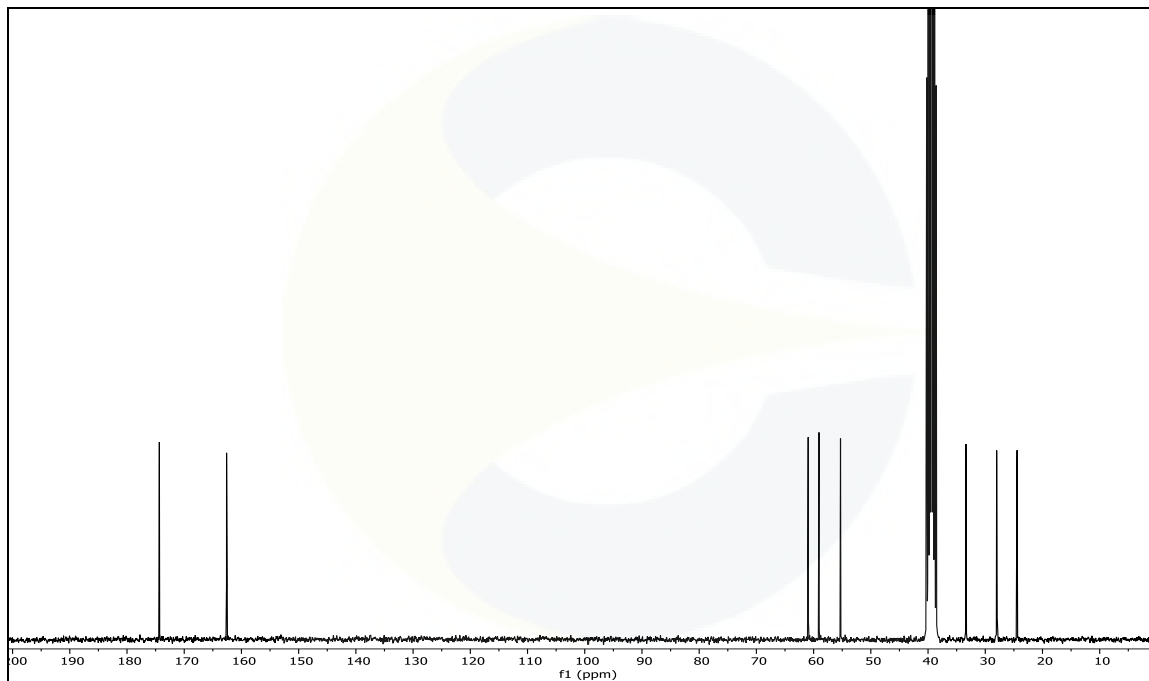
HPLC CHROMATOGRAM OF DILUENT BLANK



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MASS SPECTRUM OF VITAMIN H (CDXP-20-00850)

¹H-NMR SPECTRUM OF VITAMIN H (CDXP-20-00850) IN DMSO-d₆


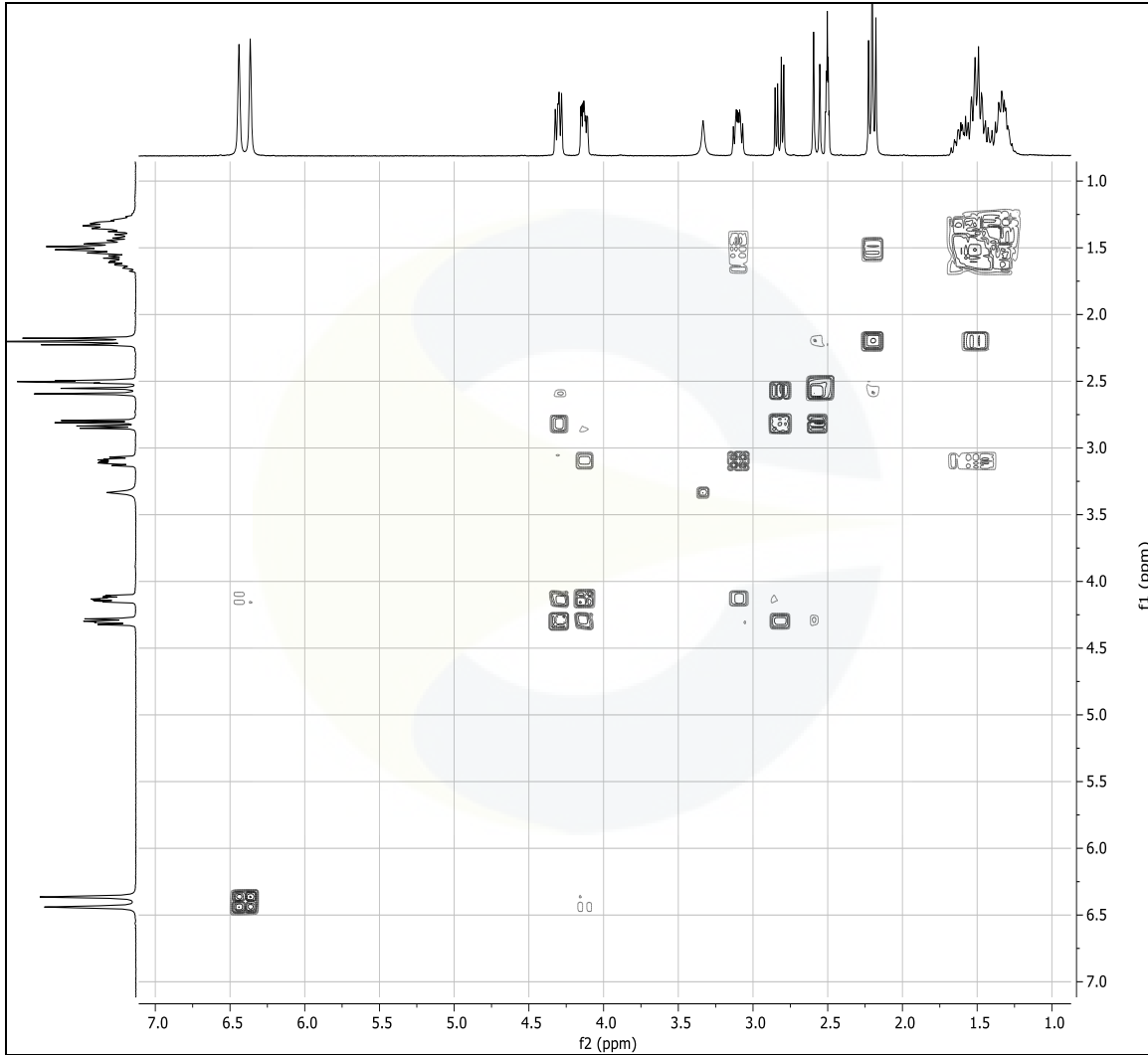
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^{13}C -NMR SPECTRUM VITAMIN H (CDXP-20-00850) IN $\text{DMSO-}d_6$ 

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COSY-NMR SPECTRUM OF VITAMIN H (CDXP-20-00850) IN DMSO-d₆



REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	01/13/2021	New report

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