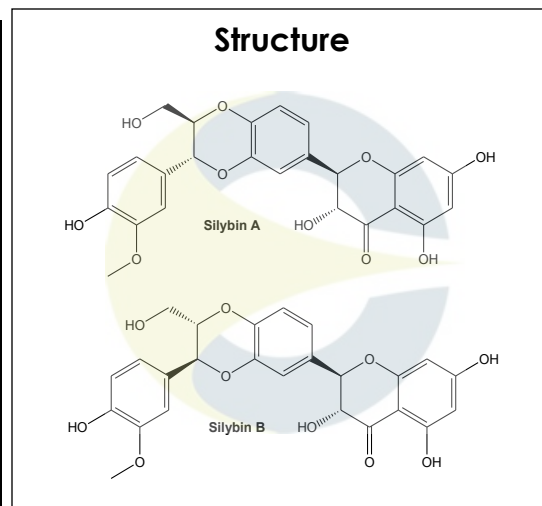


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PRODUCT NAME	Silybin (A&B)
PART NUMBER	00019225
STANDARD TYPE	Primary (P)
LOT NUMBER	00019225-207
REPORT NUMBER	CDXA-RSS-8699-01
SAMPLE NUMBER	CDXP-19-00631
DATE OF SAMPLE	10/14/2019
DATE OF RE-EVALUATION	10/18/2021
DATE OF REPORT	11/08/2021



CHEMICAL NAMES	A – Silibinin A; Silymarin I B – Silibinin B; Silybin a ₁
CHEMICAL FORMULA	A – C ₂₅ H ₂₂ O ₁₀ ; B – C ₂₅ H ₂₂ O ₁₀
MOLECULAR WEIGHT (MW)	A – 482.44; B – 482.44
CHEMICAL FAMILY	Flavonoids
CAS NUMBER	[A-22888-70-6; B-142797-34-0]
EC#(EINECS)	A - 245-302-5; B - NA
RTECS	A – DJ2981770; B – NA

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	NA	93.9%
HPLC	CDXA-CPM-126-00	NA	98.9% (Total) A – 43.9% @ 19.1 minutes B – 55.0% @ 21.2 minutes
NMR	0.700.12.4	Conforms to structure	Conforms to structure
Mass Spectrum	0.700.12.27	Conforms	Conforms
Residual Solvent*	TM6740 V1	NA	Acetone – 0.4%; EtOH – 0.9% MeOH – 0.1%; EtOAc < 0.1%
Water	0.700.12.37	NA	3.6%
Appearance	NA	NA	Off White powder

*Testing performed at an ISO 17025 accredited subcontracted laboratory.

ADJUSTED PURITY: 93.9% IS BASED ON (100 - 1.5 SOLVENTS - 3.6 WATER) X 98.9% HPLC

STORAGE CONDITIONS

STORAGE	+4 °C in a dry place.
EXPIRATION DATE	10/2024 under the above conditions.



Digitally signed by
Elizabeth Hughes
Date: 2021.11.08
09:33:26 -07'00'

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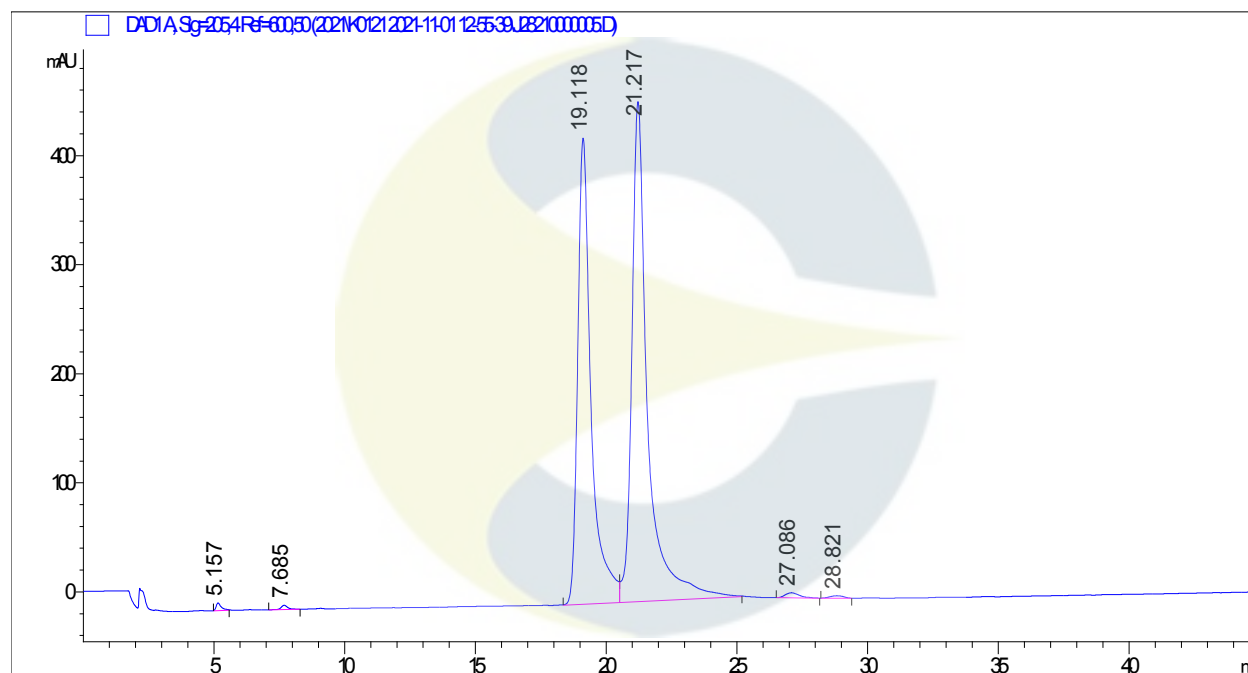
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ANALYTICAL CONDITIONS

INSTRUMENT	AGILENT 1260 HPLC UV-VIS (DAD); AB-SCIEX 6600 TRIPLE TOF
COLUMN	Phenomenex Luna C18(2) 250 x 4.6 mm, 5 µm particle size
MOBILE PHASE	A - 0.03% Phosphoric acid in Ultrapure water, B - Methanol; 47% B increasing to 53% B over 45 minutes.
COLUMN TEMP.	30 °C
FLOW RATE	1.2 mL/minute
INJECTION VOL.	4.0 µL
INJECTION CONC.	1.0 mg/mL in Methanol
DETECTION	205 ± 2 nm

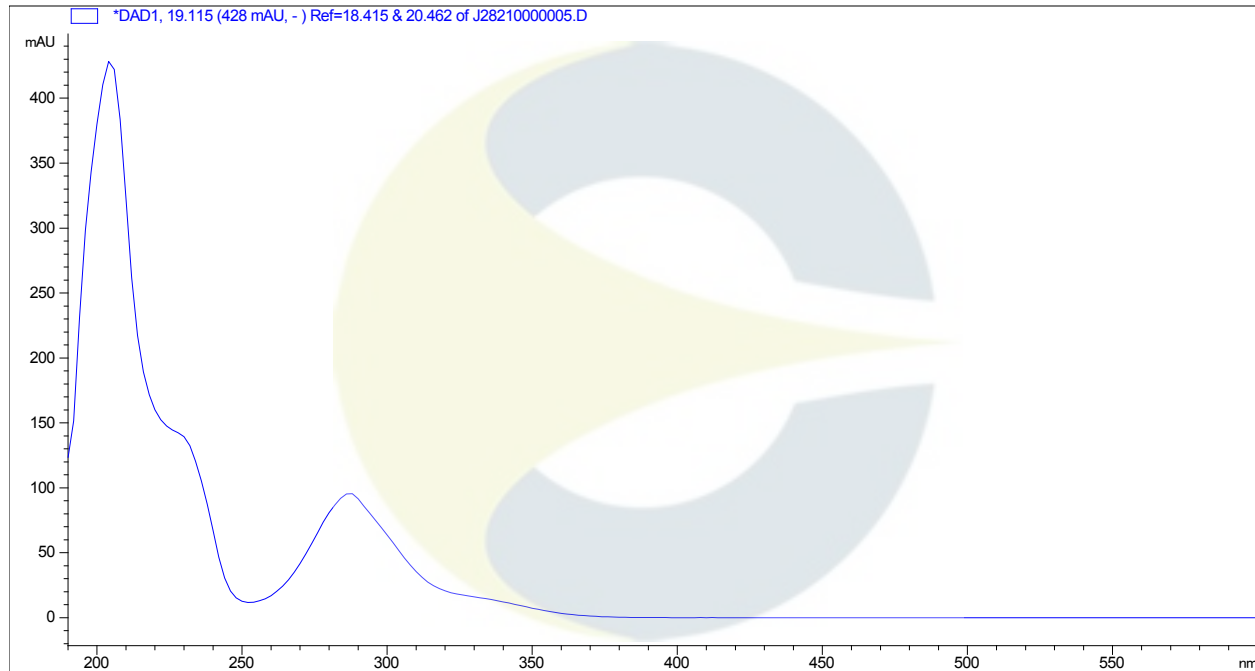
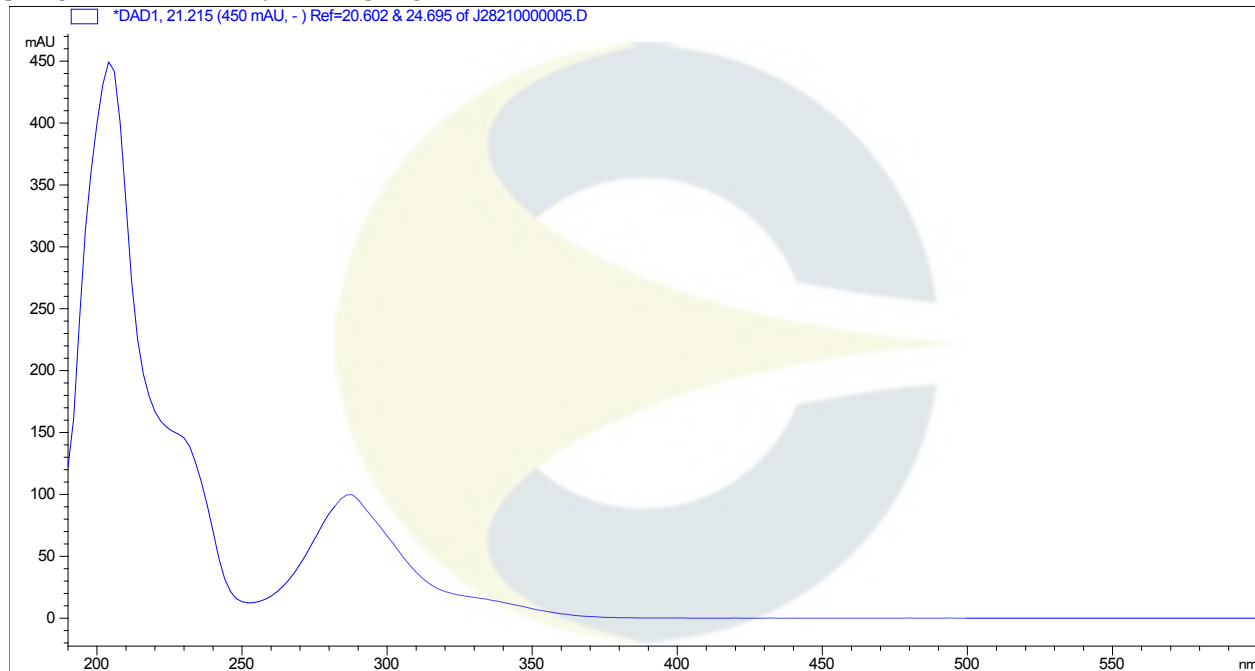
HPLC CHROMATOGRAM OF SILYBIN (A&B) (CDXP-19-00631)



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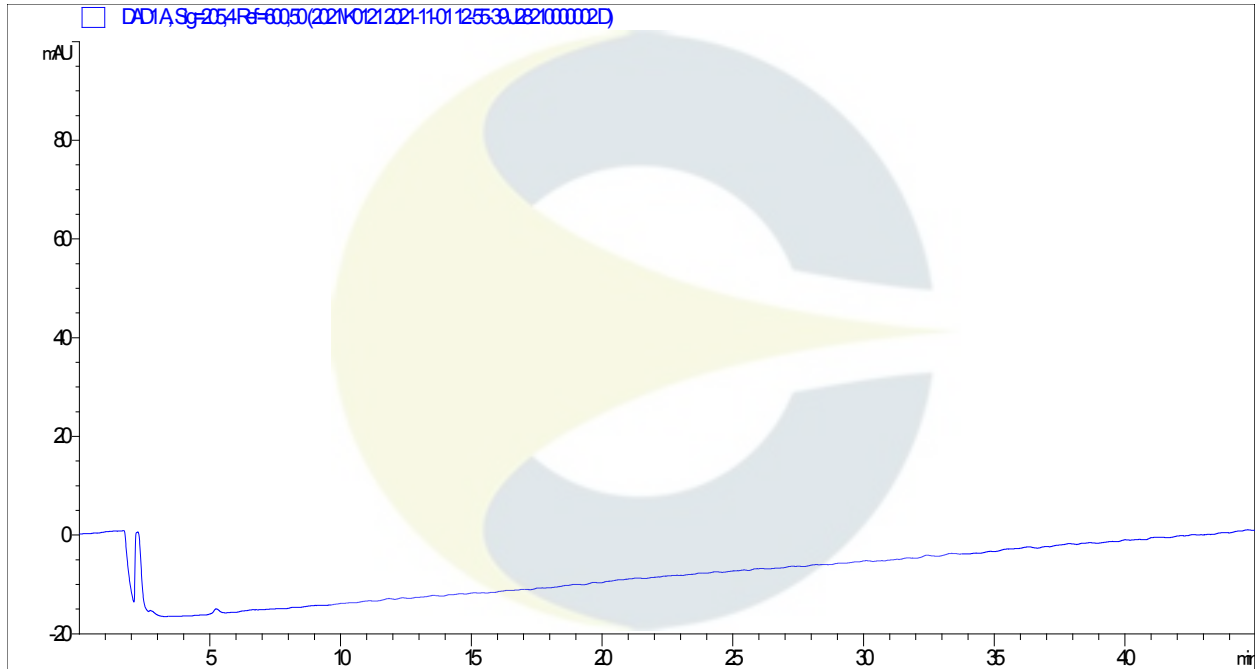
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UV SPECTRUM AT RT = 19.1 MINUTES PEAK 1**UV SPECTRUM AT RT = 21.2 MINUTES PEAK 2**

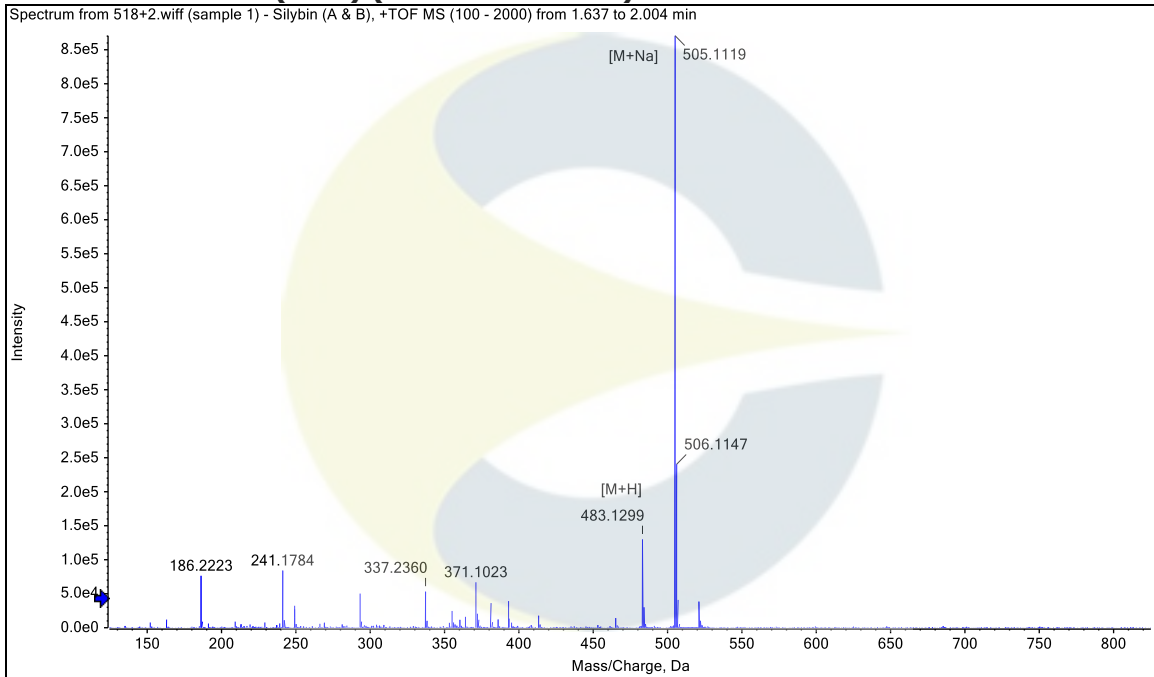
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HPLC CHROMATOGRAM OF DILUENT BLANK



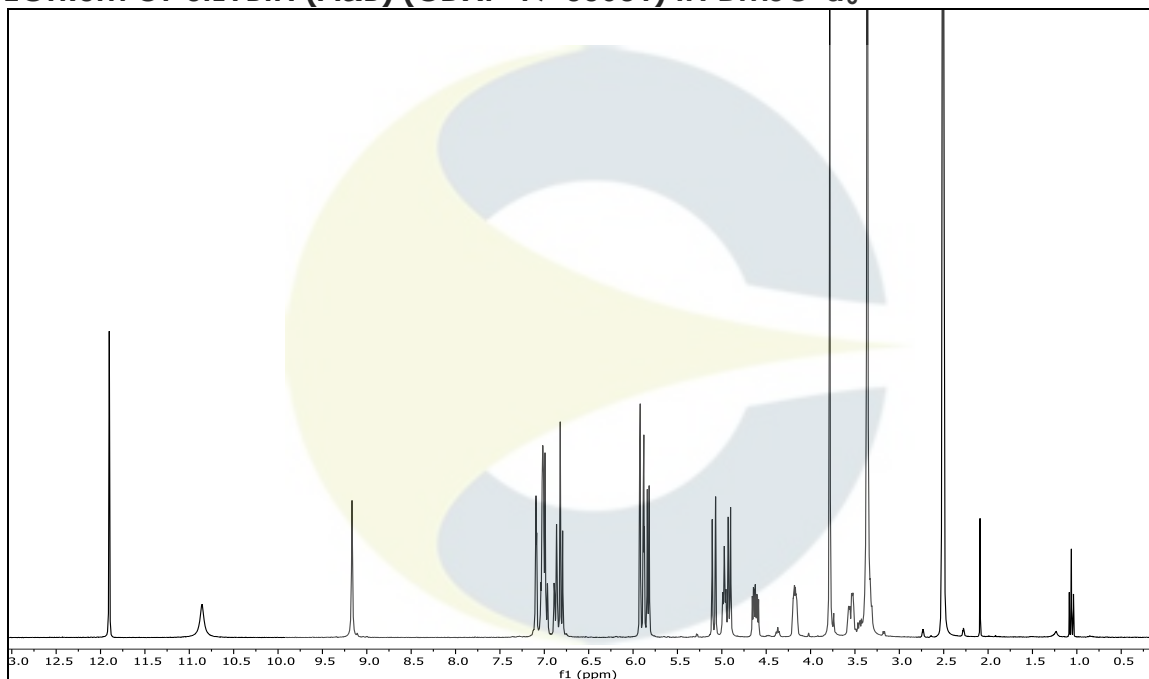
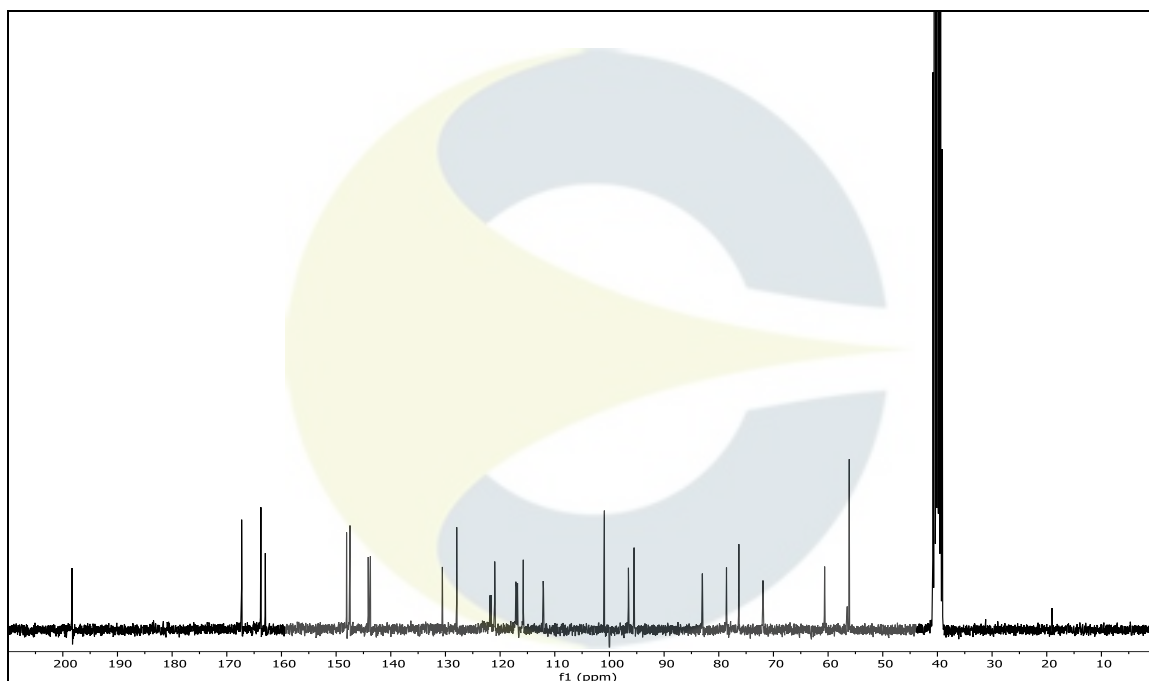
MASS SPECTRUM OF SILYBIN (A&B) (CDXP-19-00631)



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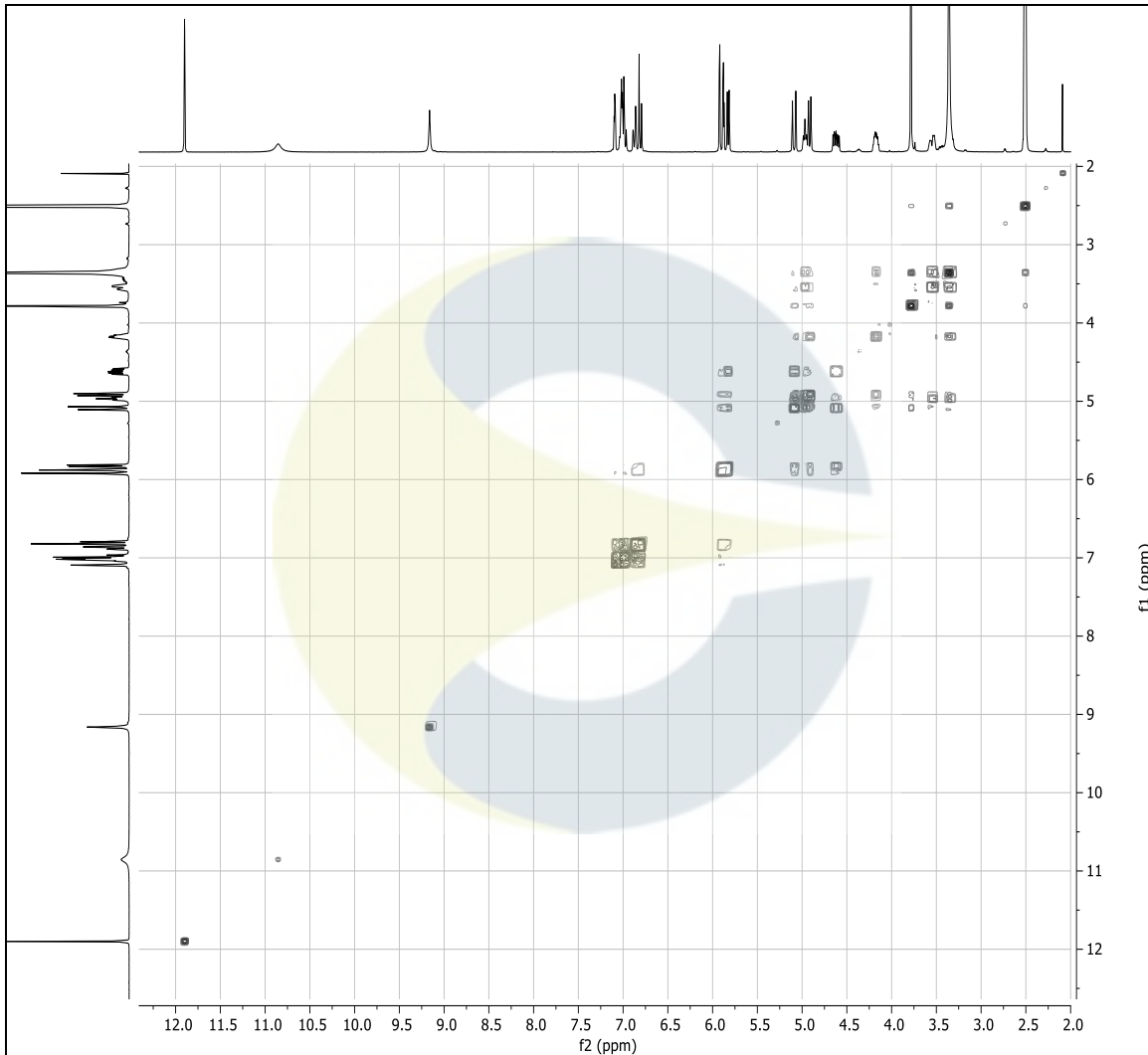
India Contact:
 Life Technologies (India) Pvt. Ltd.
 306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
 Email: customerservice@lifetechindia.com Website: www.lifetechindia.com

¹H-NMR SPECTRUM OF SILYBIN (A&B) (CDXP-19-00631) IN DMSO-d₆

¹³C-NMR SPECTRUM SILYBIN (A&B) (CDXP-19-00631) IN DMSO-d₆


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COSY-NMR SPECTRUM OF SILYBIN (A&B) (CDXP-19-00631) IN DMSO-d₆

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	11/14/2019	New report
01	11/08/2021	Passed re-evaluation by HPLC, KF. Updated expiration date, analytical results, analytical conditions, and chromatograms.

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