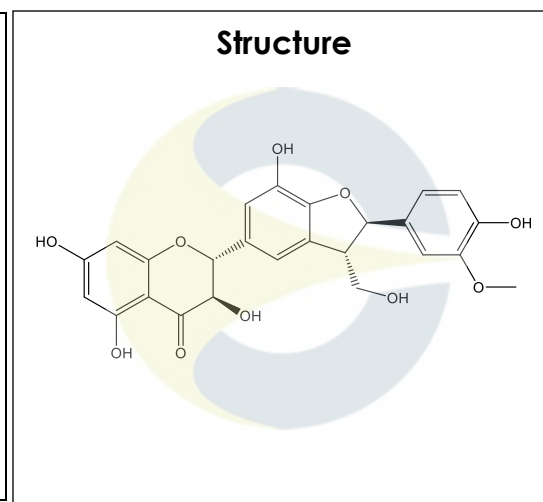


Certificate of Analysis
For Laboratory Use Only

PRODUCT NAME	Silychristin
PART NUMBER	00019240
STANDARD TYPE	Primary (P)
LOT NUMBER	00019240-409
REPORT NUMBER	CDXA-RSS-6731-01
SAMPLE NUMBER	CDXA-15-006508
DATE OF SAMPLE	08/10/2105
DATE OF RE-EVALUATION	04/14/2021
DATE OF REPORT	05/06/2021



CHEMICAL NAMES	(2S, 3S)-(+)-2-(2,3-Dihydro-7-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-3-(hydroxymethyl)-5-benzofuranyl)-3,5,7-trihydroxy-4-chromanone; Silicristin; Silymarin II
CHEMICAL FORMULA	C ₂₅ H ₂₂ O ₁₀
MOLECULAR WEIGHT (MW)	482.44
CHEMICAL FAMILY	Flavonoids
CAS NUMBER	[33889-69-9]
EC#(EINECS)	251-720-9
RTECS	DJ2981780

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	96.0%
HPLC	0.700.10.2.METH22	≥ 90%	99.6%
NMR	99.1-CD-1.0-000122	Conforms to structure	Conforms to structure
Mass Spectrum	Direct Infusion: ESI (-)	Conforms	Conforms
Residual Solvent	99.1-CD-8.0-000115	NA	ND
Water	0.700.12.37	NA	3.6%
Appearance	NA	NA	White powder

ADJUSTED PURITY: 96.0% IS BASED ON (100 - 0.0 SOLVENTS - 3.6 WATER) X 99.6% HPLC

STORAGE CONDITIONS

STORAGE	-20 °C in a dry place.
EXPIRATION DATE	04/2026 under the above conditions.



Digitally signed by Elizabeth Hughes
 Date: 2021.05.06
 16:47:41 -06'00'

This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

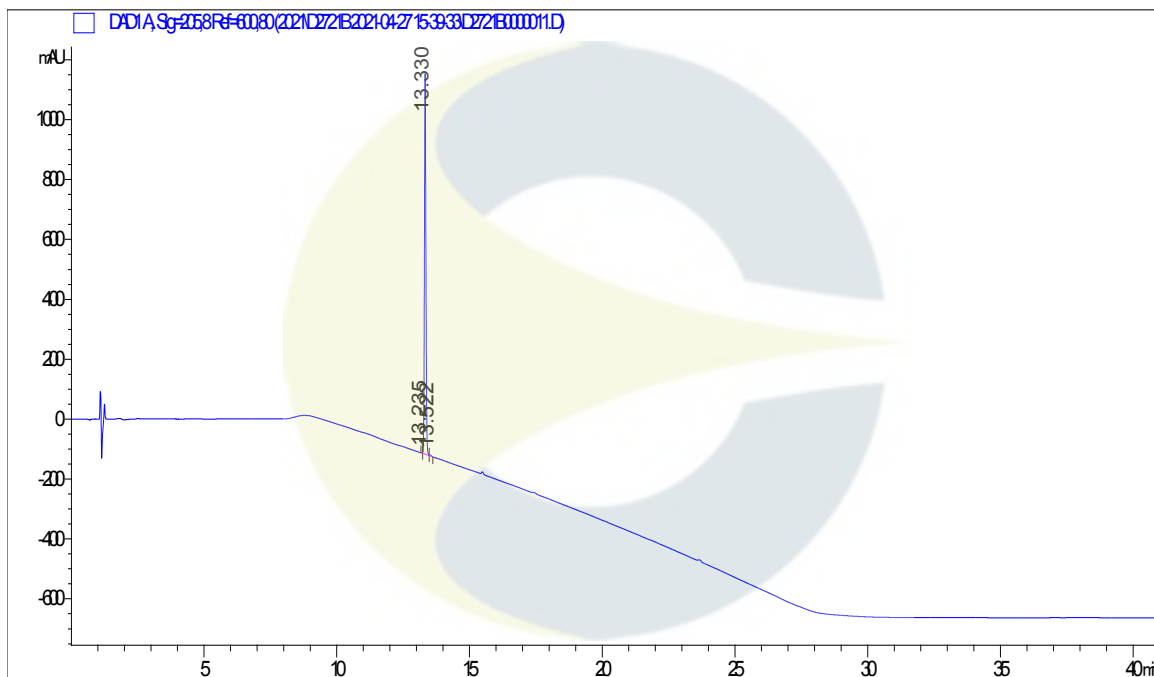
Certificate of Analysis

For Laboratory Use Only

ANALYTICAL CONDITIONS

INSTRUMENT	AGILENT 1260 HPLC UV-VIS (DAD); AGILENT 6510 QTOF
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.	0.2 µL
INJECTION CONC.	1.0 mg/mL in Methanol
DETECTION	205 ± 4 nm

HPLC CHROMATOGRAM OF SILYCHRISTIN (CDXA-15-006508)

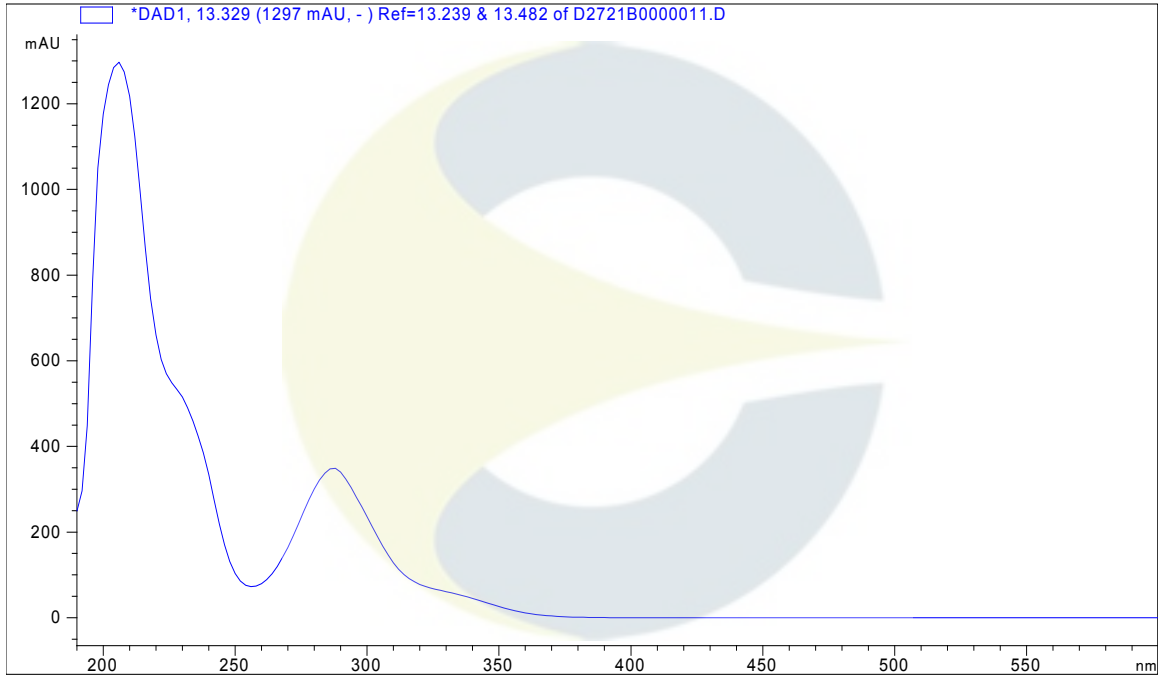


This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

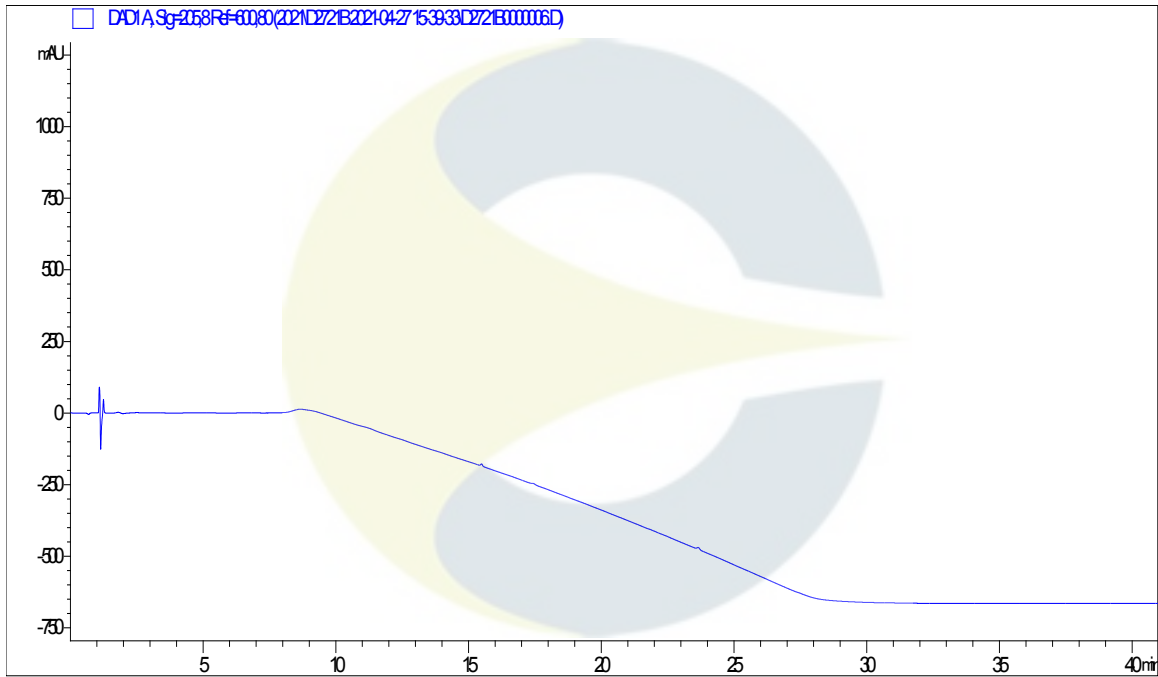
10900 Wilshire Blvd., Suite 600, Los Angeles, CA 90024 | T: +1 949-419-0288 | F: +1 949-419-0294 | www.chromadex.com
 Laboratory address: 1751 S. Fordham St., Suite 350, Longmont, CO 80503

Certificate of Analysis For Laboratory Use Only

UV SPECTRUM AT RT 13.3 MINUTES



HPLC CHROMATOGRAM OF DILUENT BLANK

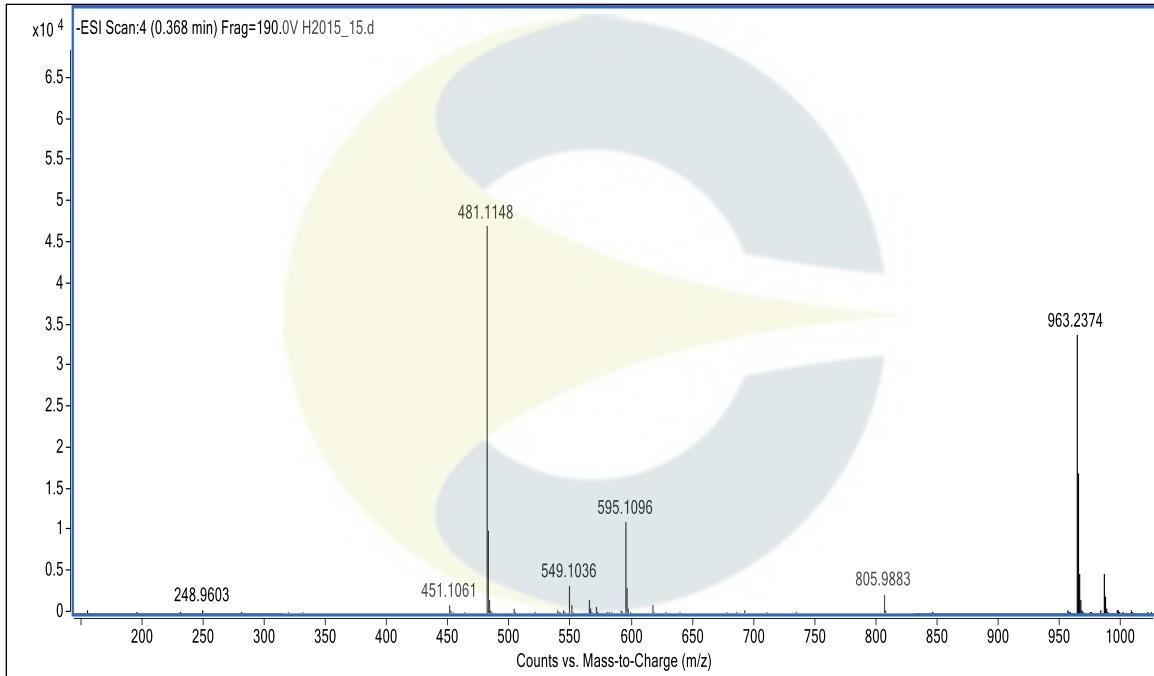


This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

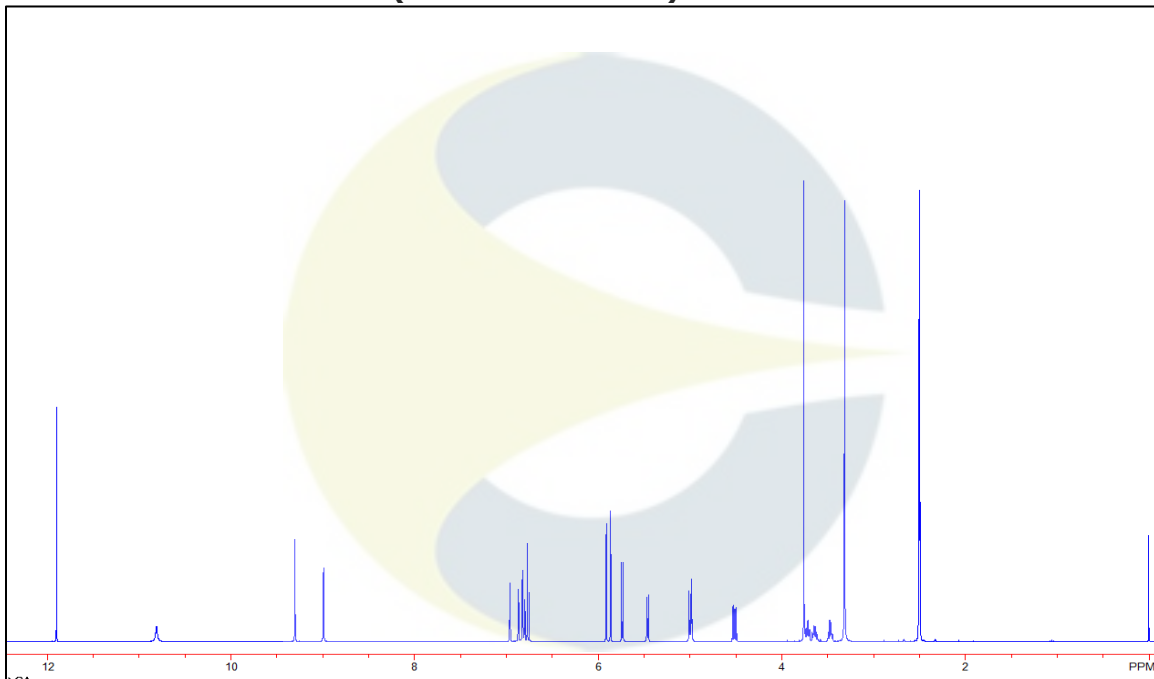
10900 Wilshire Blvd., Suite 600, Los Angeles, CA 90024 | T: +1 949-419-0288 | F: +1 949-419-0294 | www.chromadex.com
Laboratory address: 1751 S. Fordham St., Suite 350, Longmont, CO 80503

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

MASS SPECTRUM OF SILYCHRISTIN (CDXA-15-006508)



¹H-NMR SPECTRUM OF SILYCHRISTIN (CDXA-15-006508) IN DMSO-d₆

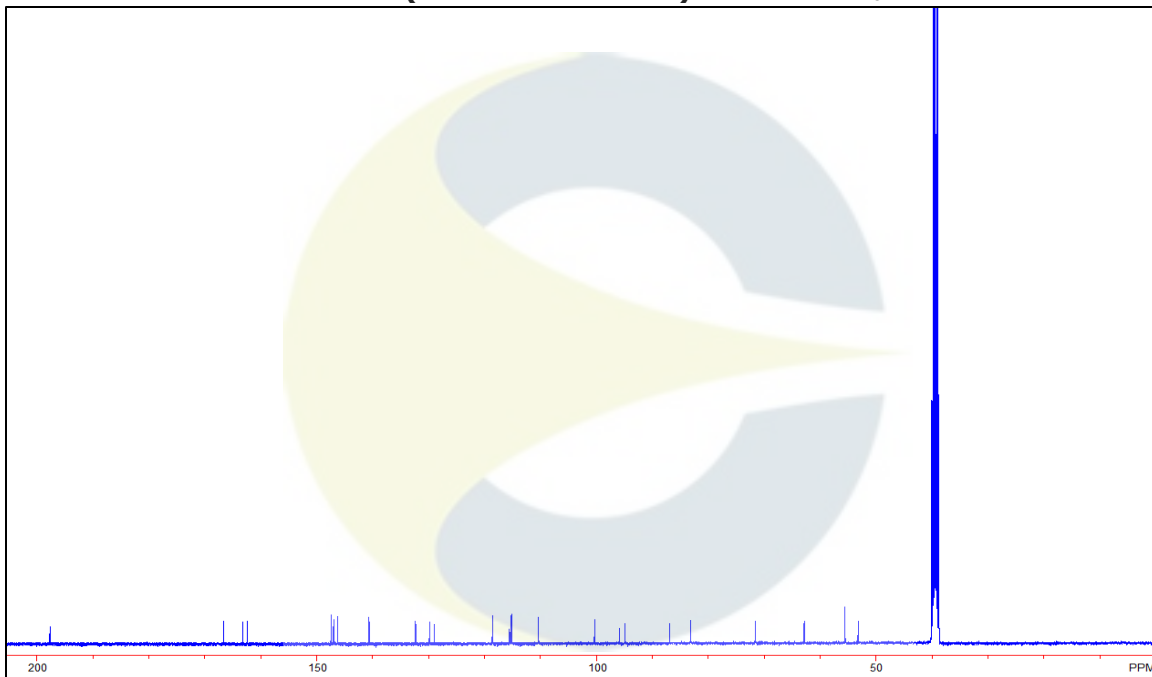


This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

10900 Wilshire Blvd., Suite 600, Los Angeles, CA 90024 | T: +1 949-419-0288 | F: +1 949-419-0294 | www.chromadex.com
Laboratory address: 1751 S. Fordham St., Suite 350, Longmont, CO 80503

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

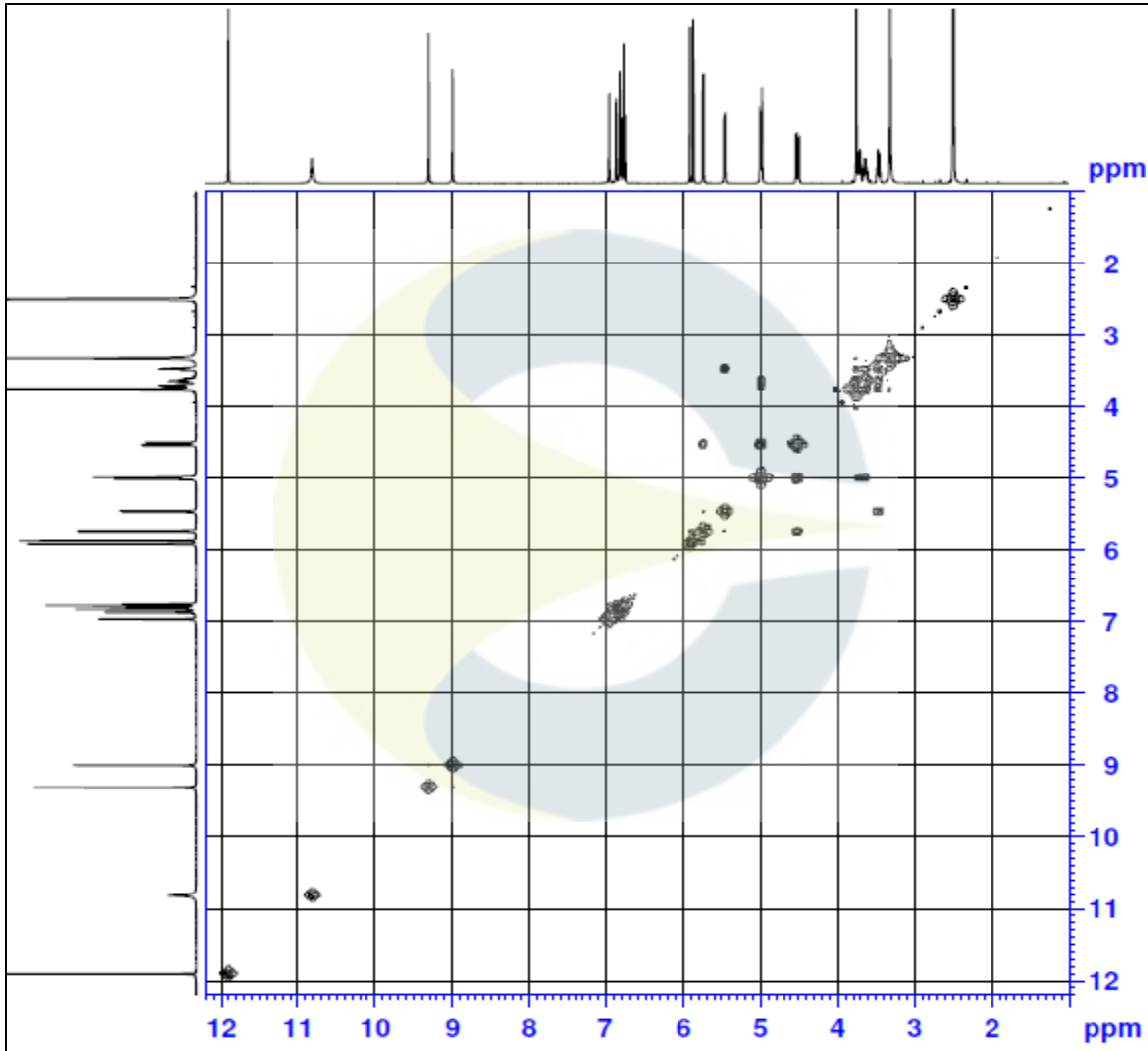
¹³C-NMR SPECTRUM OF SILYCHRISTIN (CDXA-15-006508) IN DMSO-d₆



This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

10900 Wilshire Blvd., Suite 600, Los Angeles, CA 90024 | T: +1 949-419-0288 | F: +1 949-419-0294 | www.chromadex.com
Laboratory address: 1751 S. Fordham St., Suite 350, Longmont, CO 80503

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

Certificate of Analysis
For Laboratory Use Only
COSY-NMR SPECTRUM OF SILYCHRISTIN (CDXA-15-006508) IN DMSO-d₆

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	08/28/2015	New report
01	05/06/2021	Passed re-evaluation by HPLC and KF. Removed melting point. Added RTECS number. Updated expiration date, analytical results, analytical conditions, and chromatograms.

This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

10900 Wilshire Blvd., Suite 600, Los Angeles, CA 90024 | T: +1 949-419-0288 | F: +1 949-419-0294 | www.chromadex.com
 Laboratory address: 1751 S. Fordham St., Suite 350, Longmont, CO 80503

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