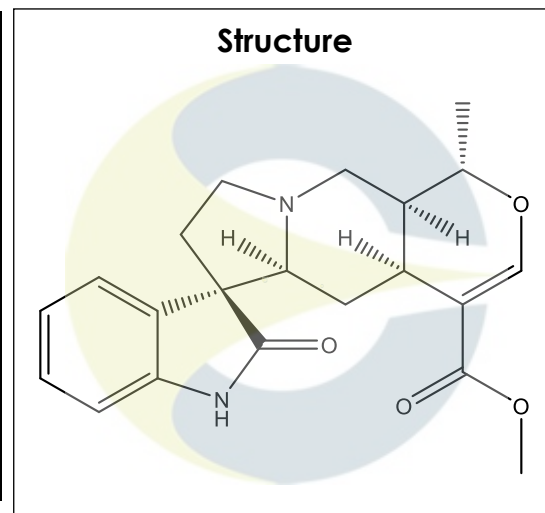


**Certificate of Analysis**
*For Laboratory Use Only*

<b>PRODUCT NAME</b>	Uncarine C
<b>PART NUMBER</b>	00021220
<b>STANDARD TYPE</b>	Primary (P)
<b>LOT NUMBER</b>	00021220-82A
<b>REPORT NUMBER</b>	CDXA-RSS-8320-01
<b>SAMPLE NUMBER</b>	CDXP-18-01117
<b>DATE OF SAMPLE</b>	10/18/2018
<b>DATE OF RE-EVALUATION</b>	09/12/2022
<b>DATE OF REPORT</b>	10/12/2022



<b>CHEMICAL NAMES</b>	(19 $\alpha$ ,20 $\alpha$ )-19-Methyl-2-oxo-formosanan-16-carboxylic acid methyl ester; Pteropodin
<b>CHEMICAL FORMULA</b>	C <sub>21</sub> H <sub>24</sub> N <sub>2</sub> O <sub>4</sub>
<b>MOLECULAR WEIGHT (MW)</b>	368.43
<b>CHEMICAL FAMILY</b>	Alkaloids
<b>CAS NUMBER</b>	[5629-60-7]
<b>EC#(EINECS)</b>	683-117-5
<b>RTECS</b>	WH1312421

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	97.0%
HPLC	0.700.10.2.METH22	≥ 90%	99.2%
NMR	30.1-04-1.0-00733	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	MeOH – 0.1%; Acetone – 0.1%; ACN < 0.1%
Water	0.700.12.37	NA	2.0%
Appearance	NA	NA	White powder

ADJUSTED PURITY: 97.0% IS BASED ON (100 - 0.2 SOLVENTS - 2.0 WATER) X 99.2% HPLC

**STORAGE CONDITIONS**
**STORAGE** -20 °C in a dry place.

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

**EXPIRATION DATE** 09/2027 under the above conditions.

## 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

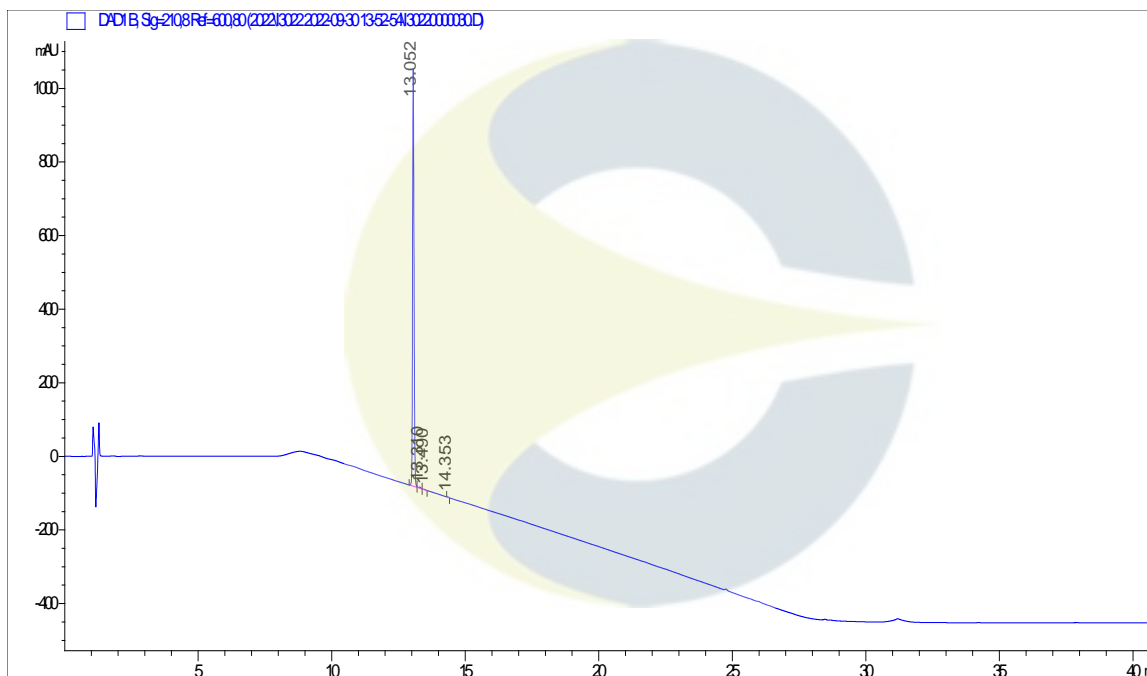
**FLOW RATE** 0.4 mL/minute

**INJECTION VOL.** 0.4 µL

**INJECTION CONC.** 1.0 mg/mL in Methanol

**DETECTION** 210 ± 4 nm

## HPLC CHROMATOGRAM OF UNCARINE C (CDXP-18-01117)



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.

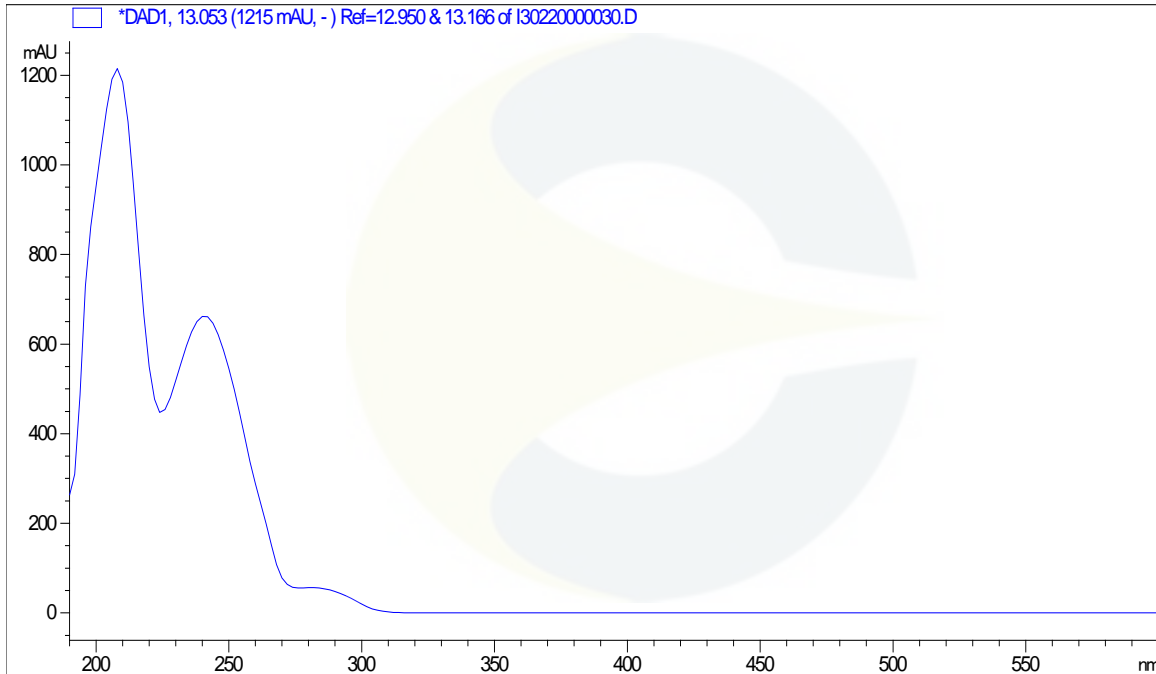
10900 Wilshire Blvd., Suite 600, Los Angeles, CA 90024 | T: +1 949-419-0288 | F: +1 949-419-0294 | [www.chromadex.com](http://www.chromadex.com)  
 Laboratory address: 1751 S. Fordham St., Suite 350, Longmont, CO 80503

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](mailto:customerservice@lifetechindia.com) Website: [www.lifetechindia.com](http://www.lifetechindia.com)

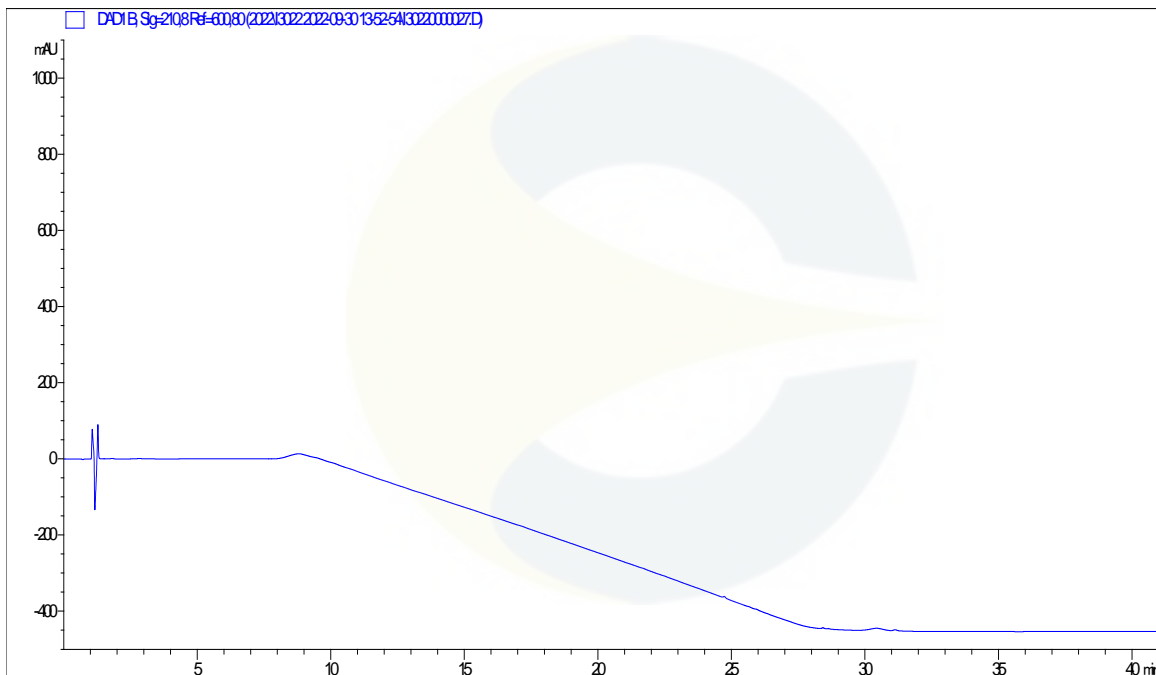
## Certificate of Analysis

For Laboratory Use Only

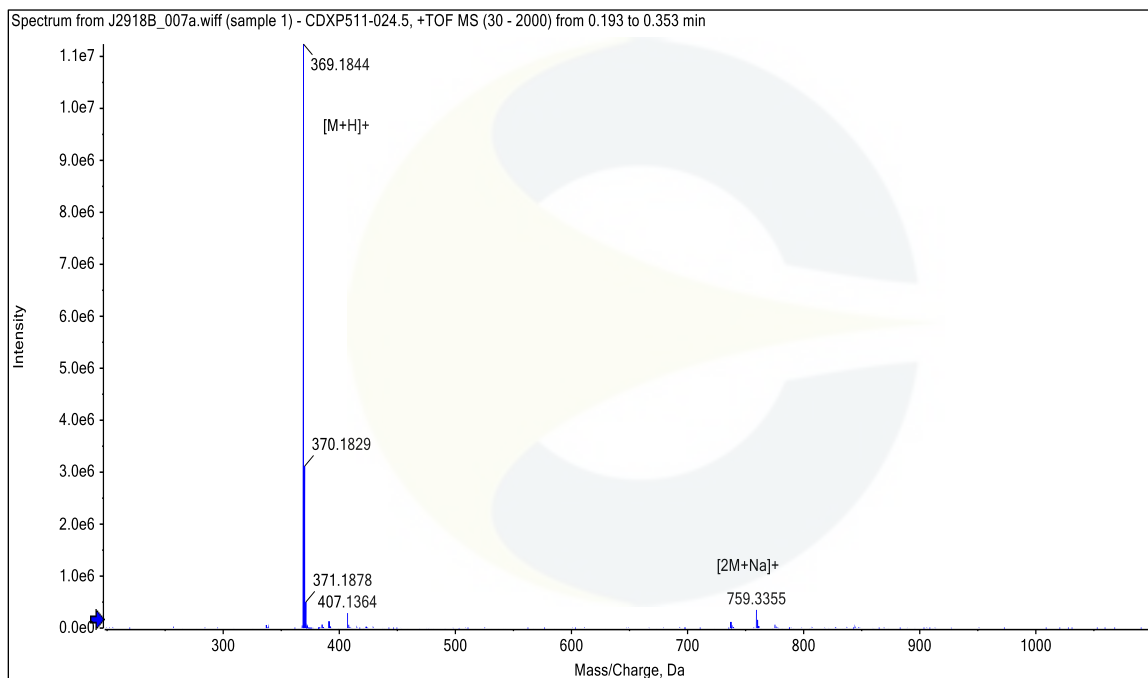
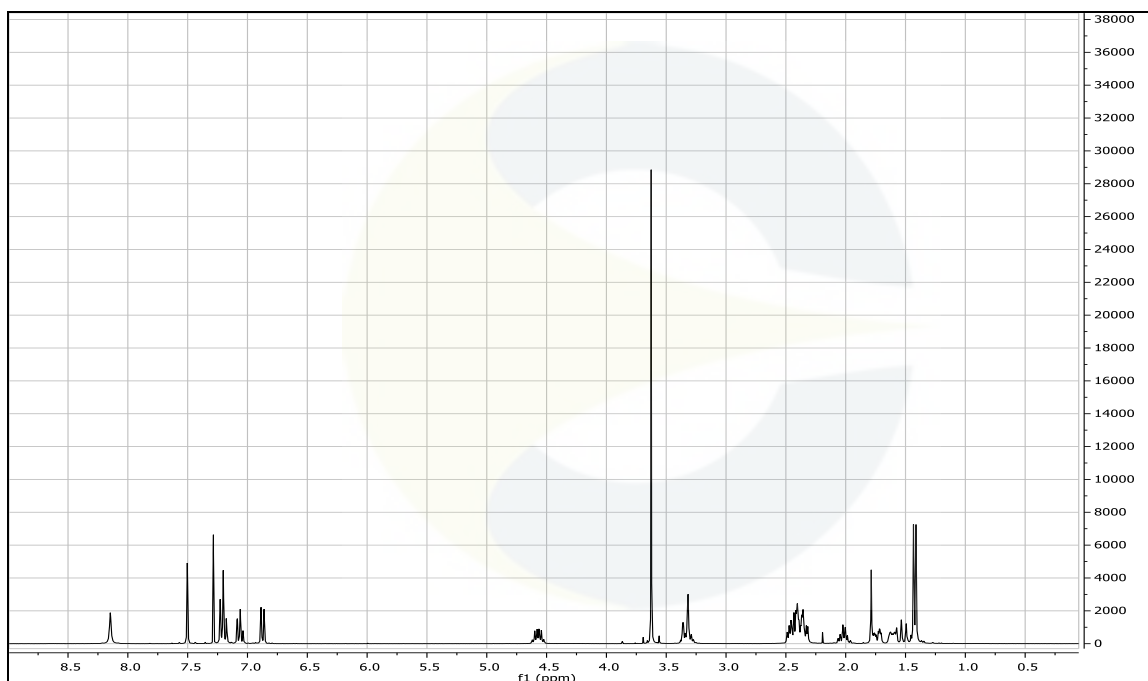
## UV SPECTRUM AT RT = 13.1 MINUTES



## HPLC CHROMATOGRAM OF DILUENT BLANK

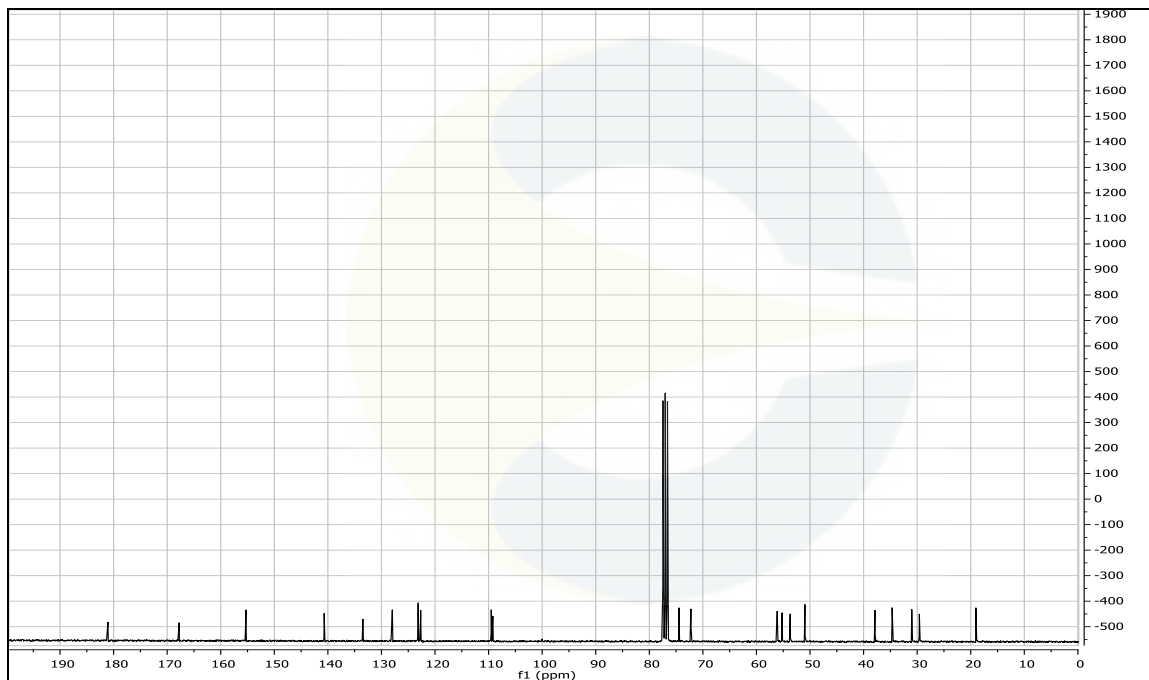


This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

**MASS SPECTRUM OF UNCARINE C (CDXP-18-01117)**

**<sup>1</sup>H-NMR SPECTRUM OF UNCARINE C (CDXP-18-01117) IN CDCl<sub>3</sub>**


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.

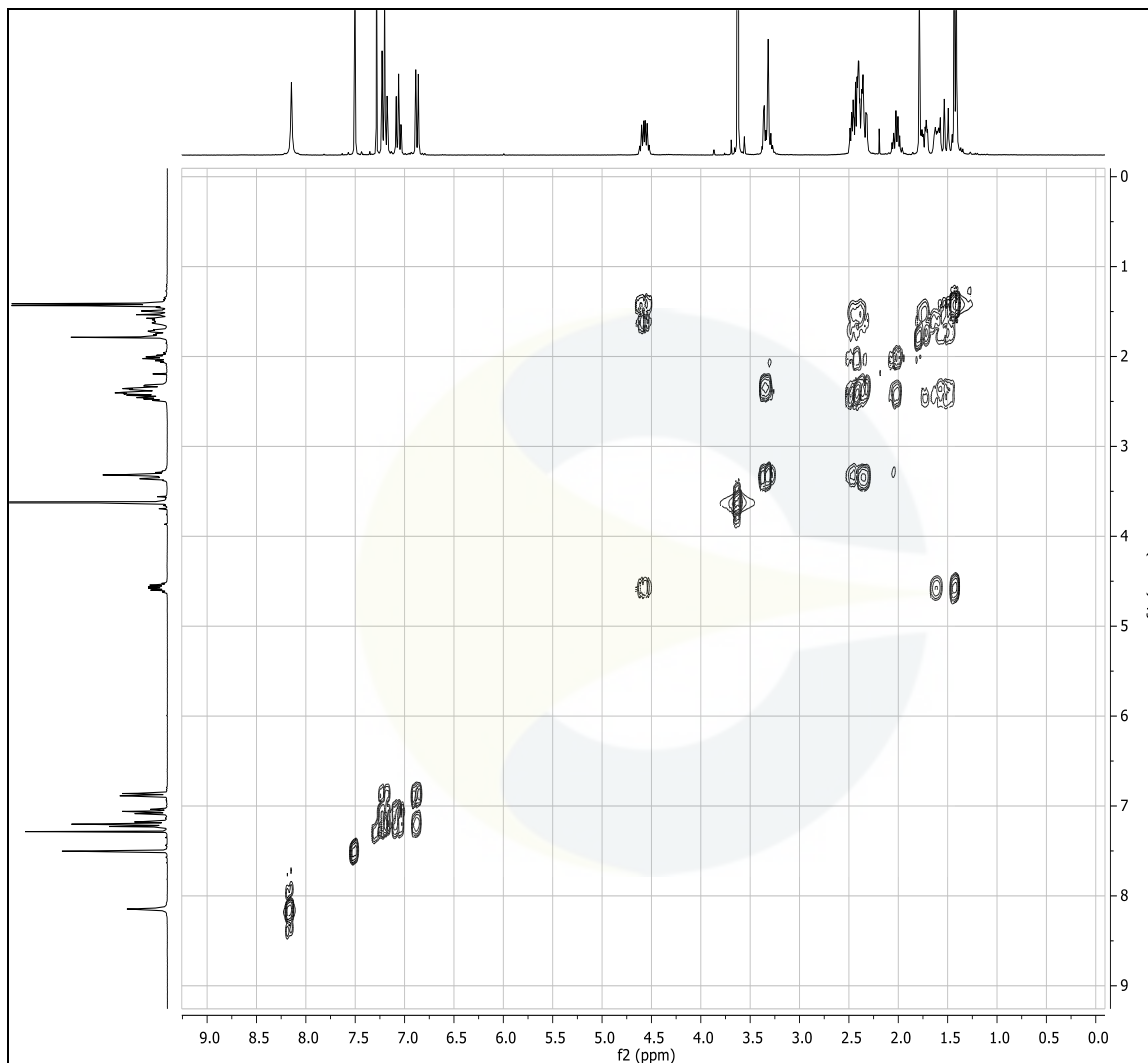
**<sup>13</sup>C-NMR SPECTRUM OF UNCARINE C (CDXP-18-01117) IN CDCl<sub>3</sub>**



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](http://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](mailto:customerservice@lifetechindia.com) Website: [www.lifetechindia.com](http://www.lifetechindia.com)

**COSY-NMR SPECTRUM OF UNCARINE C (CDXP-18-01117) IN CDCl<sub>3</sub>**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	11/14/2018	New report
01	10/12/2022	Passed re-evaluation by HPLC and KF. Updated analytical conditions, chromatograms, results, and expiration date. Added EC#.

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.