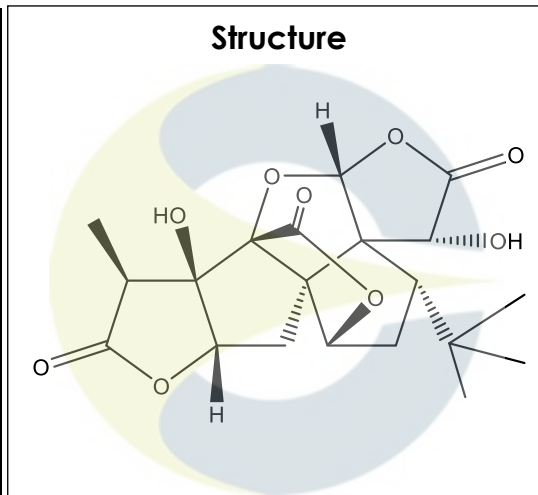


Certificate of Analysis

For Laboratory Use Only

PRODUCT NAME	Ginkgolide A	 <p>Structure</p>
PART NUMBER	00007176	
STANDARD TYPE	Primary (P)	
LOT NUMBER	00007176-025	
REPORT NUMBER	CDXA-RSS-8412-01	
SAMPLE NUMBER	CDXP-18-01215	
DATE OF SAMPLE	11/08/2018	
DATE OF RE-EVALUATION	10/11/2022	
DATE OF REPORT	10/21/2022	

CHEMICAL NAMES	(1R-(1 α ,3 β ,3aS*,4 β ,6a α ,7a α ,7b α ,8 α ,10a α ,11aS*))
CHEMICAL FORMULA	C ₂₀ H ₂₄ O ₉
MOLECULAR WEIGHT (MW)	408.40
CHEMICAL FAMILY	Terpenoids
CAS NUMBER	[15291-75-5]
EC#(EINECS)	604-873-4
RTECS	KC9943000

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	96.5%
HPLC	0.700.10.2.METH22	≥ 90%	99.7%
NMR	30.1-04-1.0-000733	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	EtOH < 0.1%
Water	0.700.12.37	NA	3.2%
Appearance	NA	NA	White powder

ADJUSTED PURITY: 96.5% IS BASED ON (100 - 0.0 SOLVENTS - 3.2 WATER) X 99.7% 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 10/2027 under the above conditions.

ANALYTICAL CONDITIONS

INSTRUMENT AGILENT 1260 HPLC CONNECTED TO DIONEX CORONA VEO CHARGED AEROSOL DETECTOR (CAD); 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

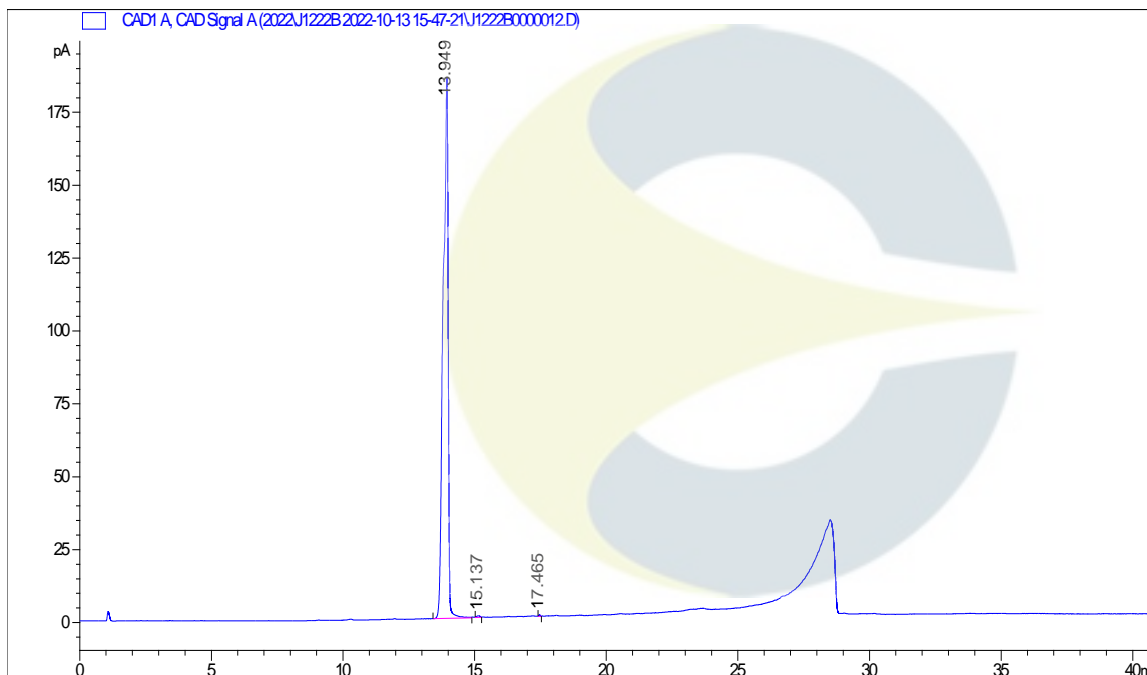
FLOW RATE 0.4 mL/minute

INJECTION VOL. 10.0 µL

INJECTION CONC. 1.0 mg/mL in Methanol

DETECTION CAD

HPLC CHROMATOGRAM OF GINKGOLIDE A (CDXP-18-01215)

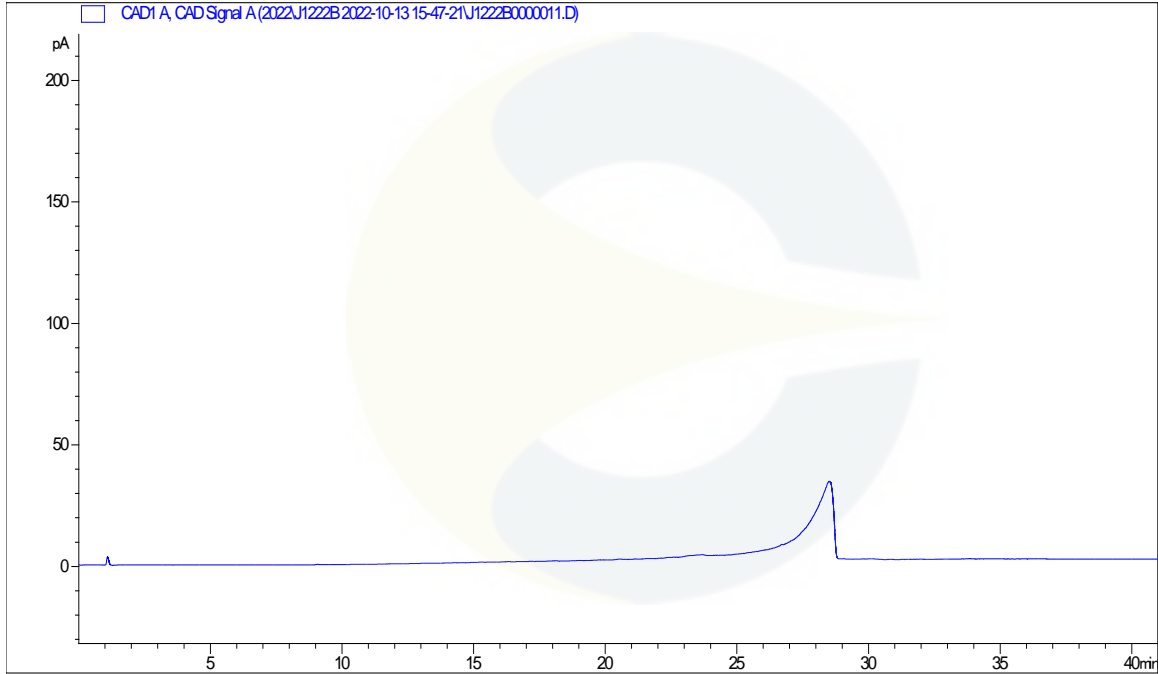


This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

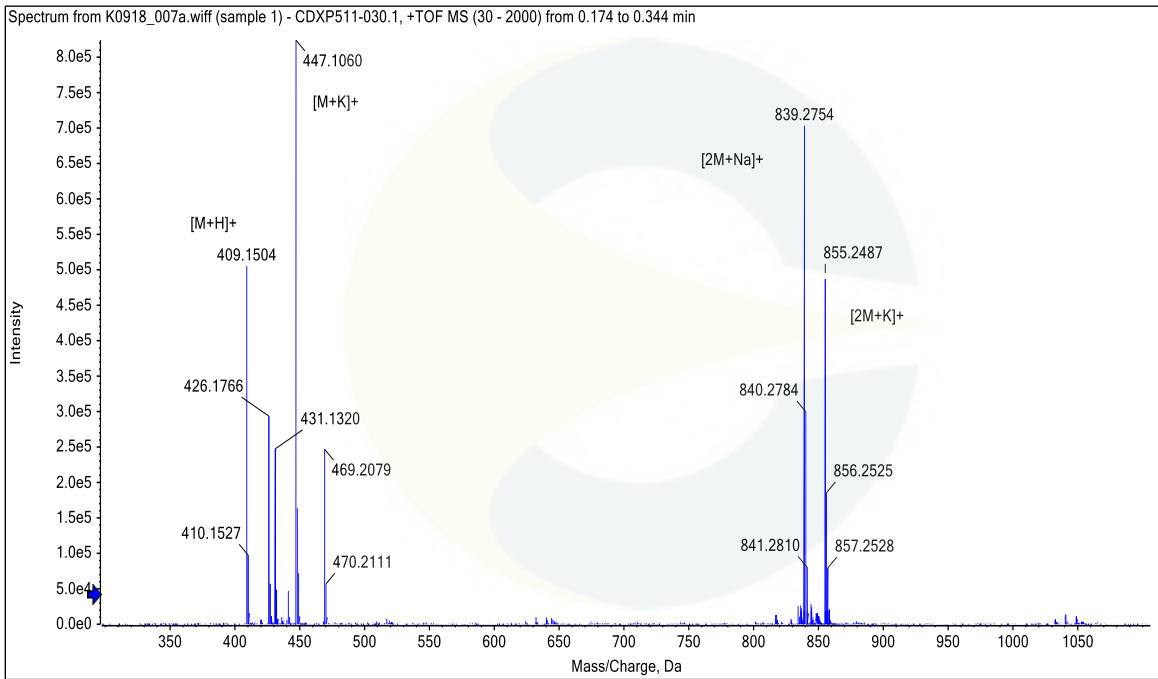
10900 Wilshire Blvd., Suite 600, Los Angeles, CA 90024 | T: +1 949-419-0288 | F: +1 949-419-0294 | www.chromadex.com
Laboratory address: 1751 S. Fordham St., Suite 350, Longmont, CO 80503

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

HPLC CHROMATOGRAM OF DILUENT BLANK



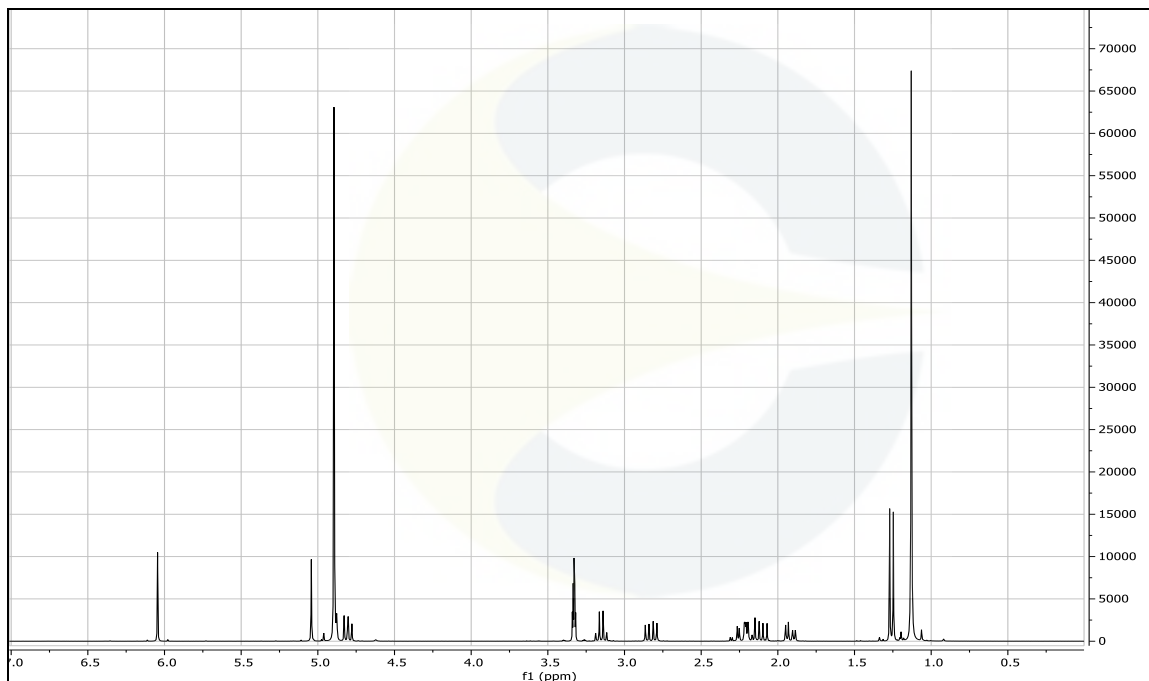
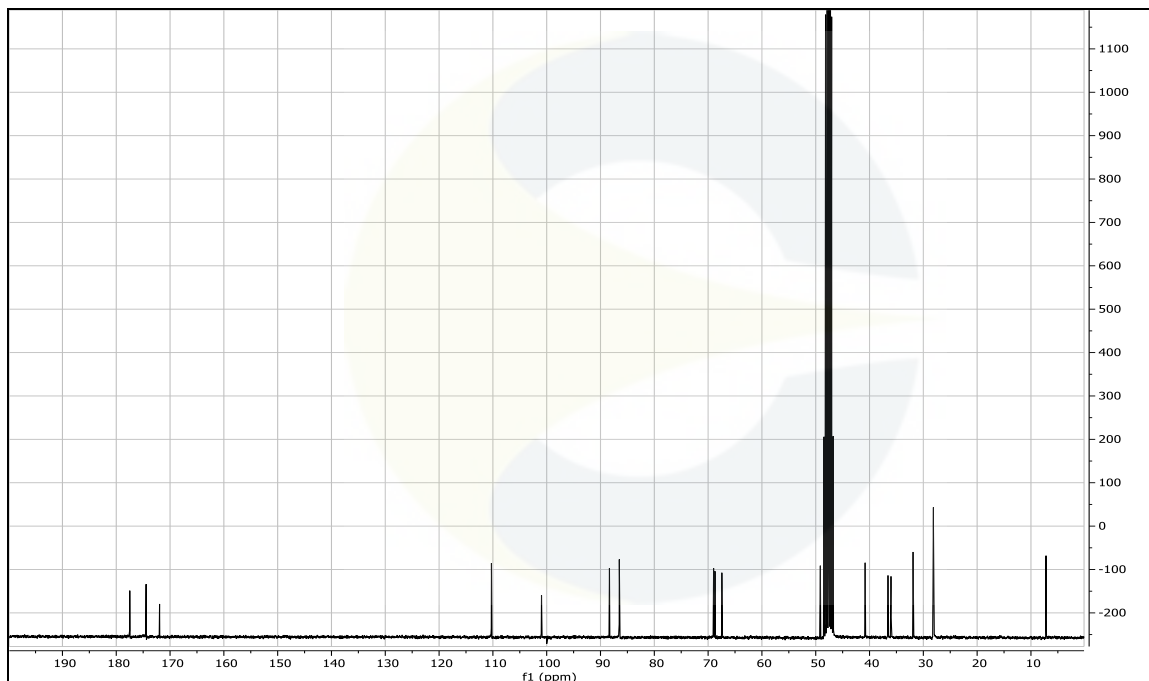
MASS SPECTRUM OF GINKGOLIDE A (CDXP-18-01215)



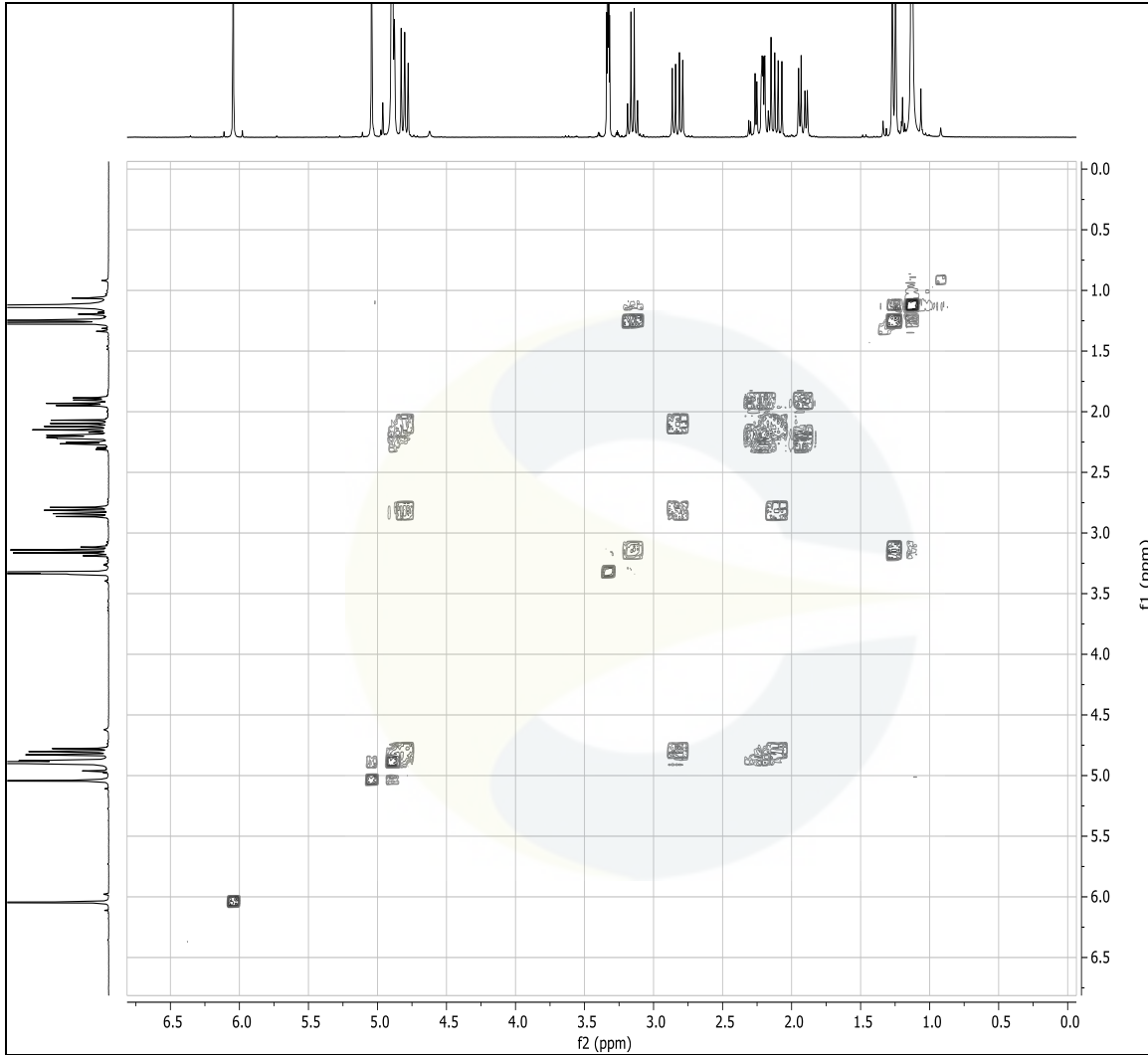
This document is the property of ChromaDex, Inc. and/or its relevant affiliates and contains confidential and proprietary material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by or to others is strictly prohibited.

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

¹H-NMR SPECTRUM OF GINKGOLIDE A (CDXP-18-01215) IN CD₃OD

¹³C-NMR SPECTRUM OF GINKGOLIDE A (CDXP-18-01215) IN CD₃OD


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
COSY-NMR SPECTRUM OF GINKGOLIDE A (CDXP-18-01215) IN CD₃OD

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	12/19/2018	New report
01	10/21/2022	Passed re-evaluation by HPLC and KF. Updated results, analytical conditions, chromatograms, and expiration date.

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.