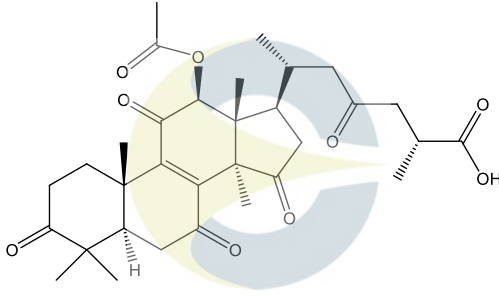


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<b>PRODUCT NAME</b>	Ganoderic acid F	<div style="text-align: center;"> <b>Structure</b>   </div>
<b>PART NUMBER</b>	00007068	
<b>STANDARD TYPE</b>	Primary (P)	
<b>LOT NUMBER</b>	00007068-802	
<b>REPORT NUMBER</b>	CDXA-RSS-6203-01	
<b>SAMPLE NUMBER</b>	CDXA-14-4987	
<b>DATE OF SAMPLE</b>	08/11/2014	
<b>DATE OF RE-EVALUATION</b>	02/14/2019	
<b>DATE OF REPORT</b>	03/06/2019	

<b>CHEMICAL NAMES</b>	(12β)-12-(Acetoxy)-3,7,11,15,23-pentaoxo-lanost-8-en-26-oic acid
<b>CHEMICAL FORMULA</b>	C <sub>32</sub> H <sub>42</sub> O <sub>9</sub>
<b>MOLECULAR WEIGHT (MW)</b>	570.68
<b>CHEMICAL FAMILY</b>	Terpenes
<b>CAS NUMBER</b>	[98665-15-7]
<b>EC#(EINECS)</b>	NA
<b>RTECS</b>	NA

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	NA	98.4%
HPLC	99.1-04-1.0-000684	NA	99.7%
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-7.0-000115	NA	ND
Water	99.1-04-10.0-000094	NA	1.3%
Appearance	NA	NA	Off-white powder

ADJUSTED PURITY: 98.4% IS BASED ON (100 - 0.0 SOLVENTS - 1.3 WATER) X 99.7% HPLC

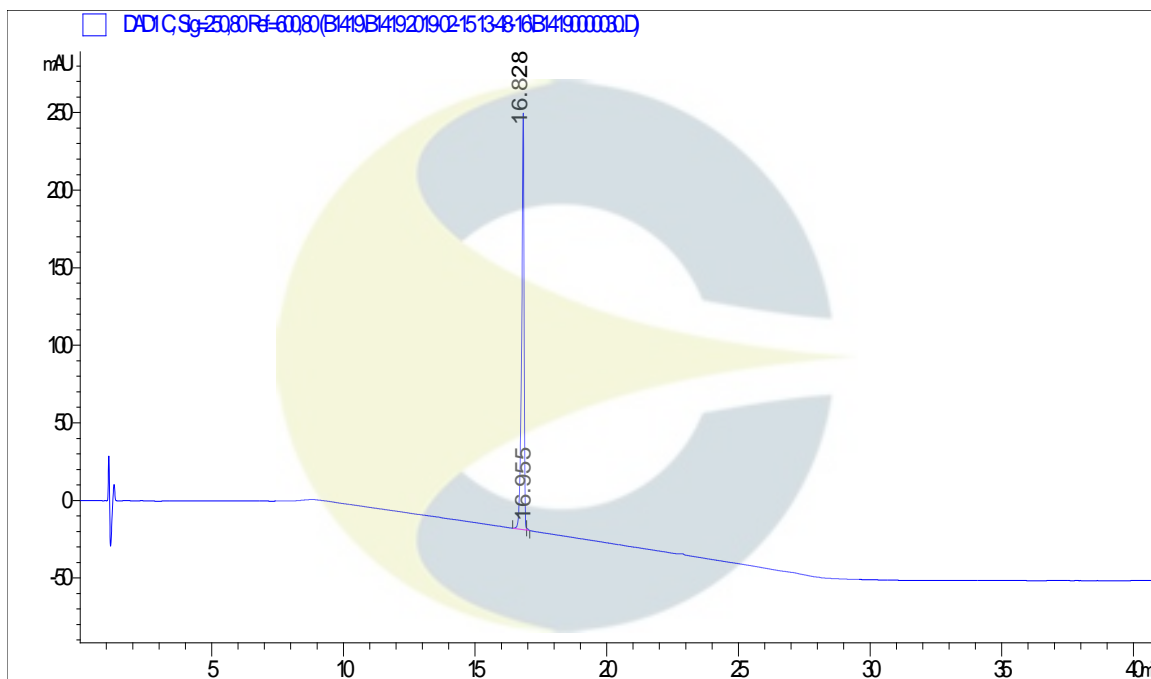
**STORAGE CONDITIONS**

<b>STORAGE</b>	+4 °C in a dry place.
<b>EXPIRATION DATE</b>	02/2024 under the above conditions.

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**ANALYTICAL CONDITIONS**

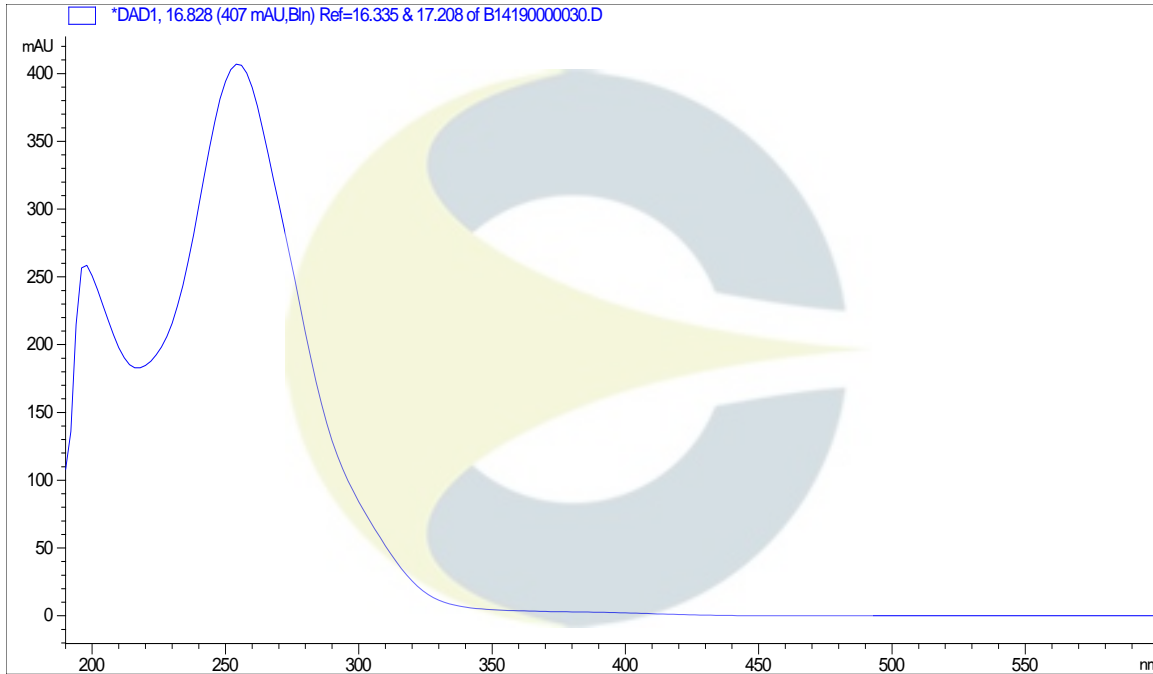
<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD); AGILENT 1100 ION TRAP
<b>COLUMN</b>	Phenomenex Luna C18(2) 150 x 2.00 mm, 5 µm particle size
<b>MOBILE PHASE</b>	A - 0.1% Trifluoroacetic acid in Ultrapure water, B - Acetonitrile; Isocratic 5% B for 5 minutes, then increasing to 95% B over 20 minutes. Hold at 95% B for 15 minutes.
<b>COLUMN TEMP.</b>	60 °C
<b>FLOW RATE</b>	0.4 mL/minute
<b>INJECTION VOL.</b>	2.0 µL
<b>INJECTION CONC.</b>	1.1 mg/mL in Methanol
<b>DETECTION</b>	250 ± 40 nm

**HPLC CHROMATOGRAM OF GANODERIC ACID F (CDXA-14-4987)**


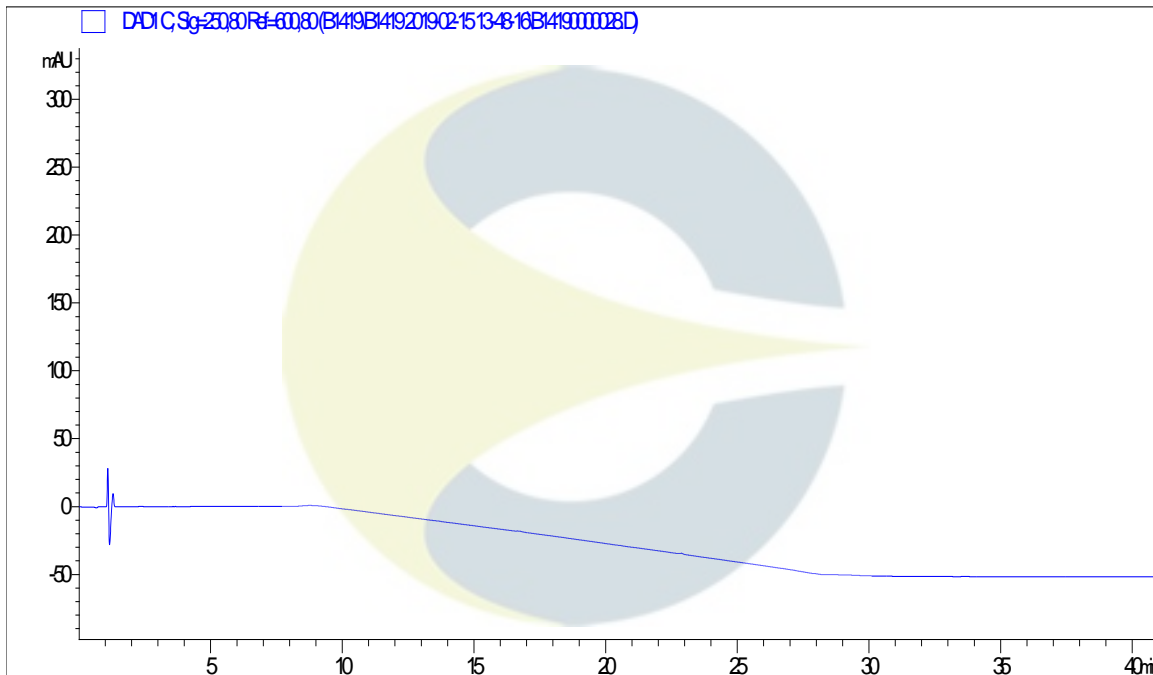
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**UV SPECTRUM AT RT = 16.8 MINUTES**

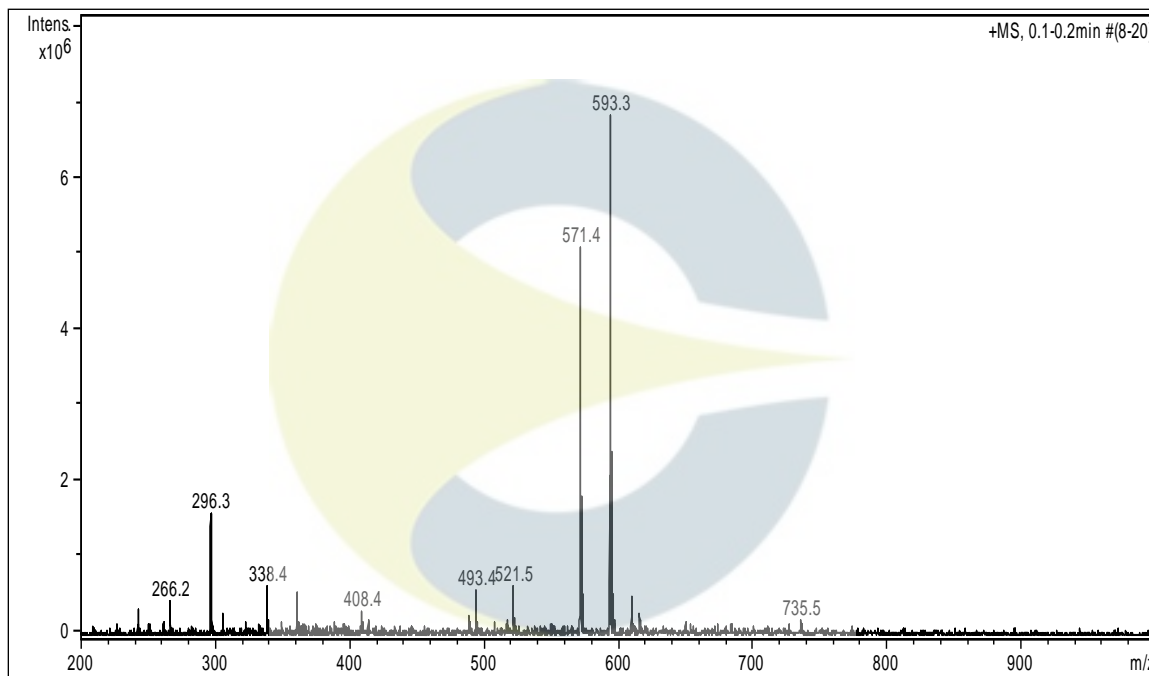


**HPLC CHROMATOGRAM OF DILUENT BLANK**

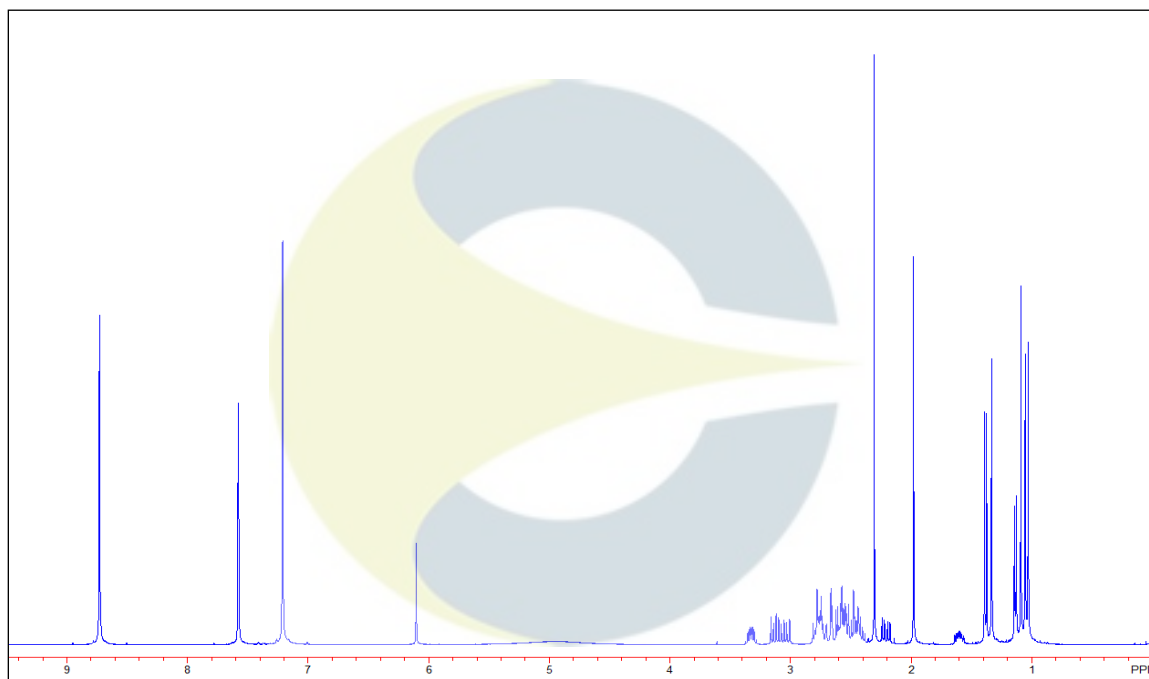


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MASS SPECTRUM OF GANODERIC ACID F (CDXA-14-4987)

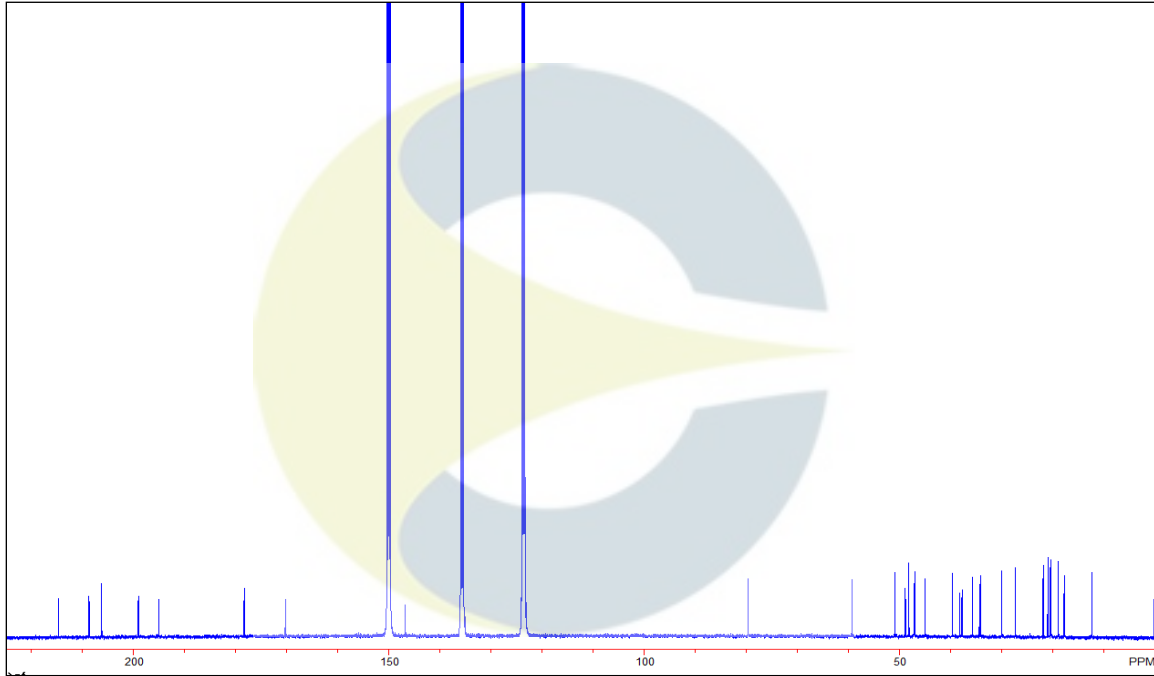


<sup>1</sup>H-NMR SPECTRUM OF GANODERIC ACID F (CDXA-14-4987) IN PYRIDINE-d<sub>5</sub>



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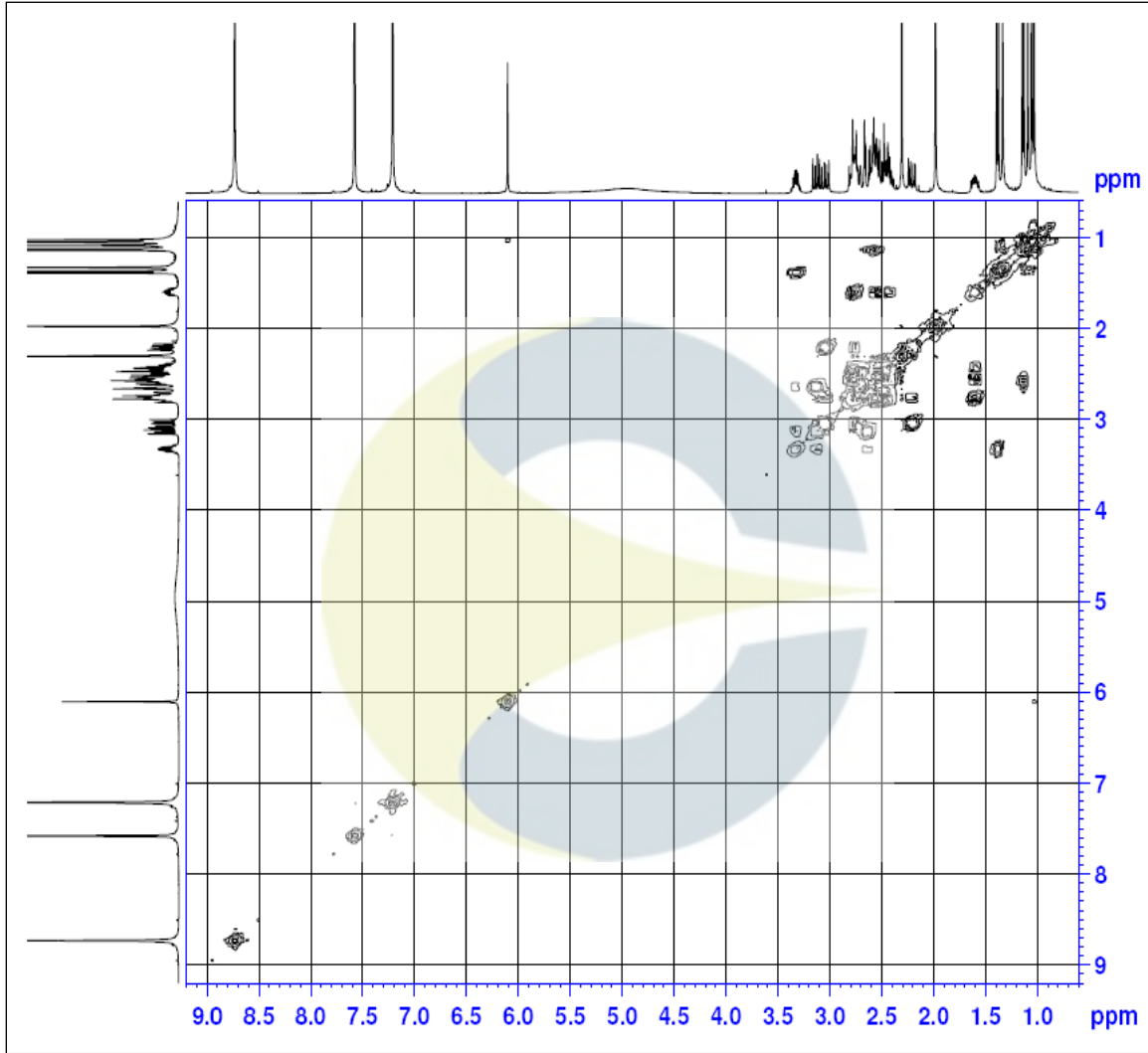
<sup>13</sup>C-NMR SPECTRUM OF GANODERIC ACID F (CDXA-14-4987) IN PYRIDINE-d<sub>5</sub>



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**COSY-NMR SPECTRUM OF GANODERIC ACID F (CDXA-14-4987) IN PYRIDINE-d<sub>5</sub>**



**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	08/25/2014	New report
01	03/06/2019	Passed re-evaluation by HPLC and KF. Updated analytical method, conditions, chromatograms, results, and expiration date. Removed melting point.

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