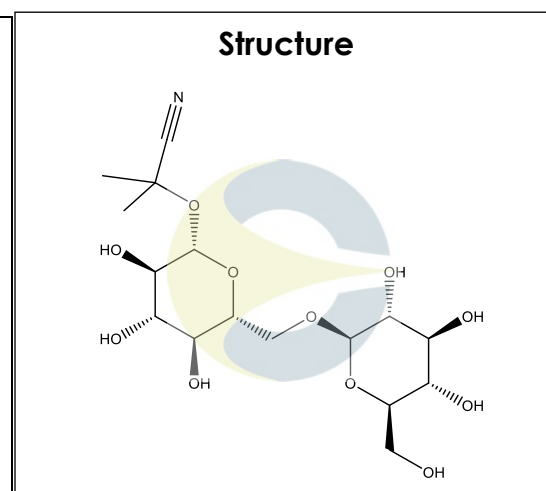


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<b>PRODUCT NAME</b>	Linustatin
<b>PART NUMBER</b>	00012282
<b>STANDARD TYPE</b>	Primary (P)
<b>LOT NUMBER</b>	00012282-3243
<b>REPORT NUMBER</b>	CDXA-RSS-4544-02
<b>SAMPLE NUMBER</b>	CDXA-11-3243
<b>DATE OF SAMPLE</b>	05/20/2011
<b>DATE OF RE-EVALUATION</b>	06/08/2015 (1 <sup>st</sup> ); 07/22/2019 (2 <sup>nd</sup> )
<b>DATE OF REPORT</b>	08/20/2019



<b>CHEMICAL NAMES</b>	2-[(6-O-β-D-Glucopyranosyl-β-D-glucopyranosyl)oxy]-2-methylpropanenitrile
<b>CHEMICAL FORMULA</b>	C <sub>16</sub> H <sub>27</sub> NO <sub>11</sub>
<b>MOLECULAR WEIGHT (MW)</b>	409.39
<b>CHEMICAL FAMILY</b>	Cyanogenic Glucosides
<b>CAS NUMBER</b>	[72229-40-4]
<b>EC#(EINECS)</b>	NA
<b>RTECS</b>	TZ4805000

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	NA	87.1%
HPLC	CDXA-CPM-100-00	NA	95.9%
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-4.0-000115	NA	Acetone – 1.2%
Water	0.700.12.37	NA	8.0%
Appearance	NA	NA	White powder

ADJUSTED PURITY: 87.1% IS BASED ON (100 - 1.2 SOLVENTS - 8.0 WATER) X 95.9% HPLC

**STORAGE CONDITIONS**

<b>STORAGE</b>	+4 °C in a dry place.
<b>EXPIRATION DATE</b>	07/2024 under the above conditions.

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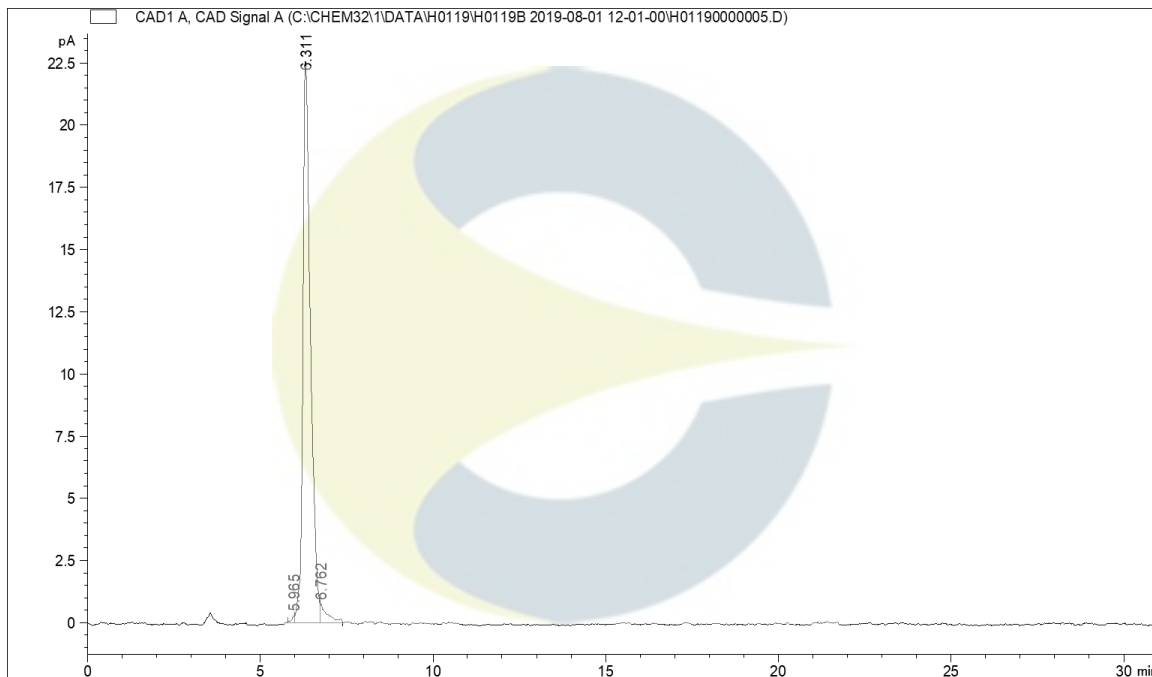
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### ANALYTICAL CONDITIONS

<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD) CONNECTED TO DIONEX CORONA VEO CHARGED AEROSOL DETECTOR (CAD); AGILENT 6510 QTOF
<b>COLUMN</b>	Shodex Asahipak NH2-40 4E, 250 x 4.60 mm, 5 µm particle size
<b>MOBILE PHASE</b>	A – Ultrapure Water; Isocratic 100% A for 31 minutes.
<b>COLUMN TEMP.</b>	60 °C
<b>FLOW RATE</b>	0.4 mL/minute
<b>INJECTION VOL.</b>	5.0 µL
<b>INJECTION CONC.</b>	2.1 mg/mL in Ultrapure Water
<b>DETECTION</b>	CAD

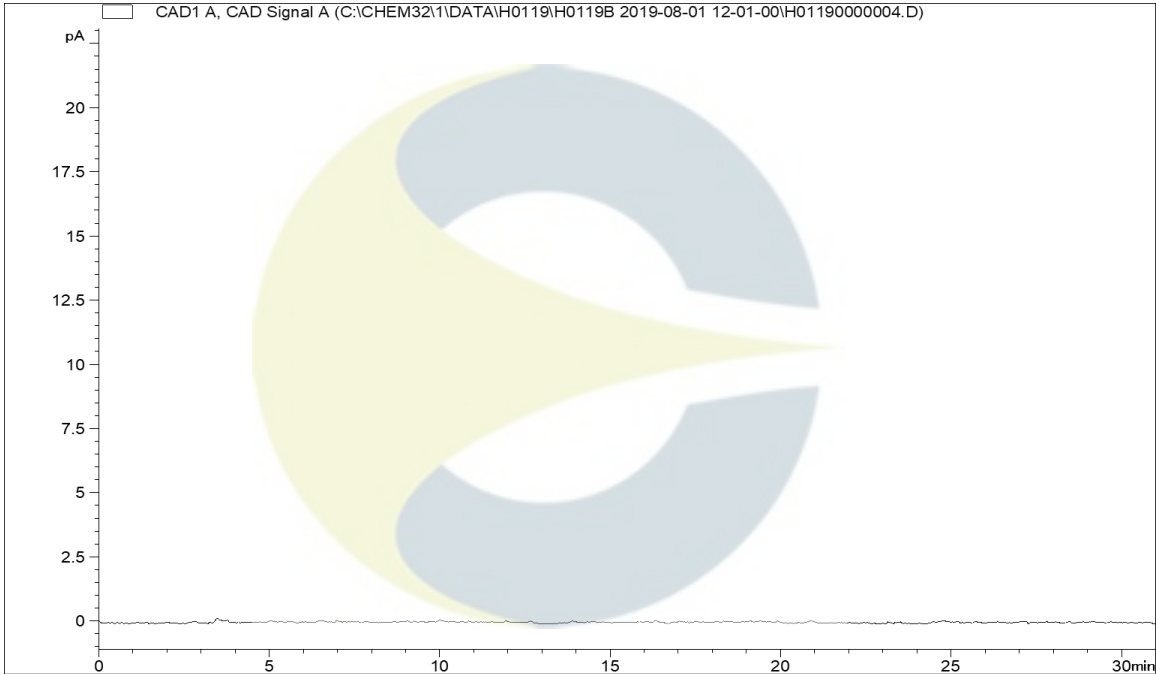
### HPLC CHROMATOGRAM OF LINUSTATIN (CDXA-11-3243)



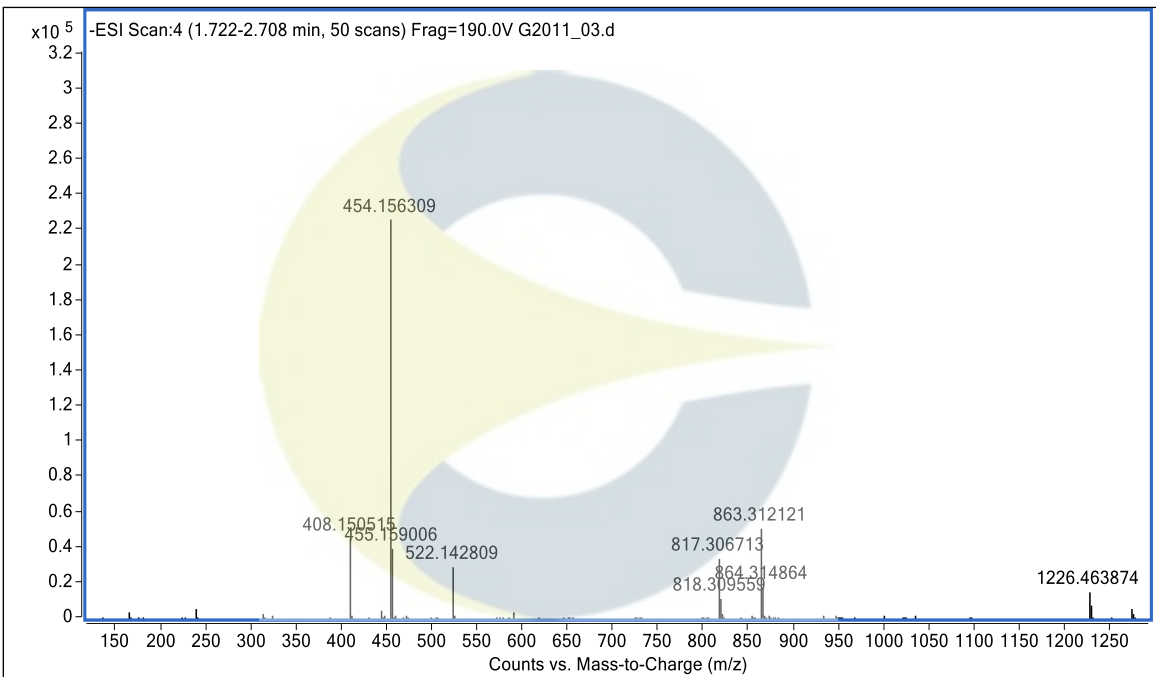
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**HPLC CHROMATOGRAM OF DILUENT BLANK**

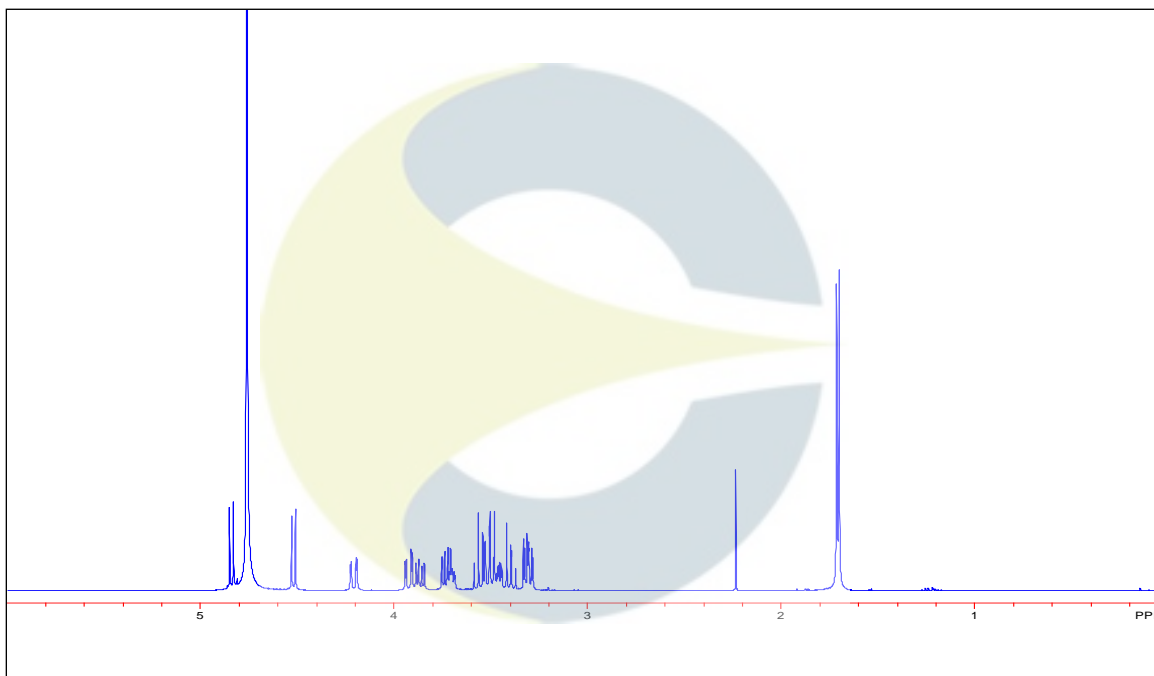


**MASS SPECTRUM OF LINUSTATIN (CDXA-11-3243)**

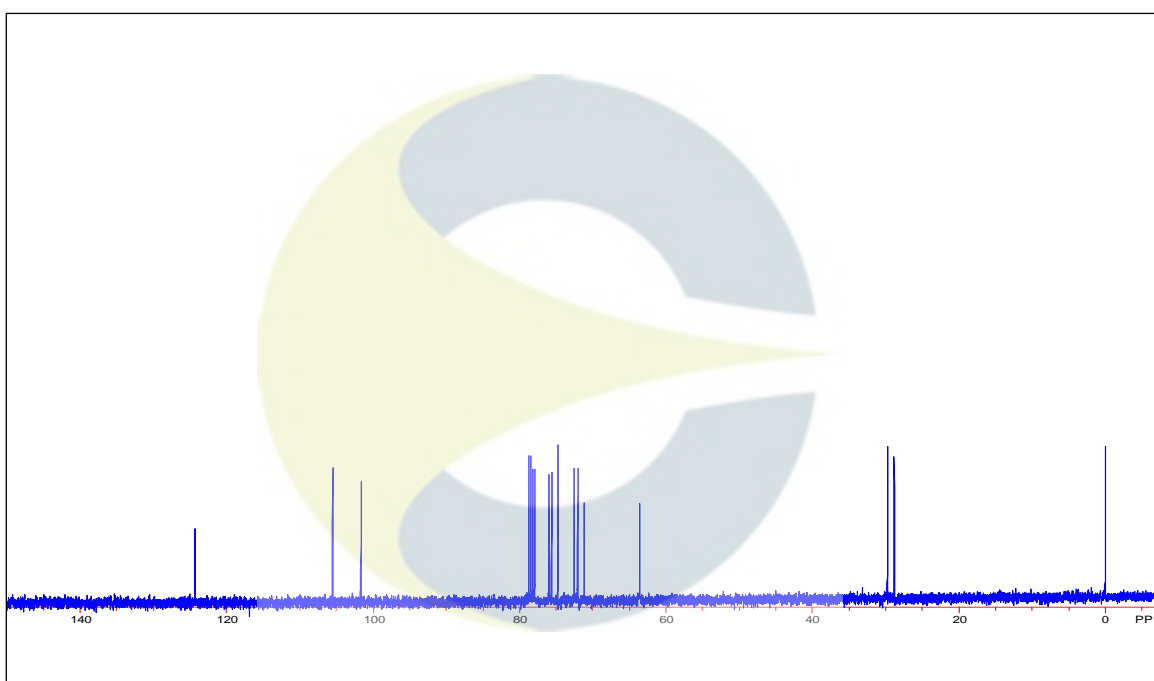


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**<sup>1</sup>H-NMR SPECTRUM OF LINUSTATIN (CDXA-11-3243) IN D<sub>2</sub>O**



**<sup>13</sup>C-NMR SPECTRUM OF LINUSTATIN (CDXA-11-3243) IN D<sub>2</sub>O**



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## REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	7/21/2011	New report
01	06/30/2015	Passed re-evaluation by HPLC and KF. Updated expiration date, updated melting point, and updated template.
02	08/20/2019	Passed second re-evaluation by HPLC, KF. Updated expiration date, analytical method, conditions, chromatograms and results. Removed melting point and added RTECS number.

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