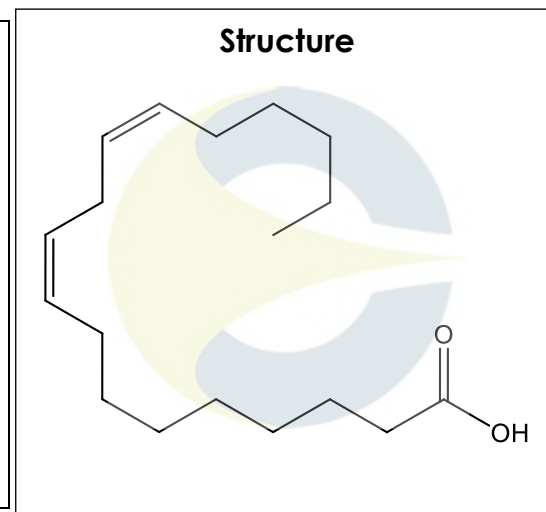


**Certificate of Analysis**
*For Laboratory Use Only*

<b>PRODUCT NAME</b>	Linoleic acid
<b>PART NUMBER</b>	00012251
<b>STANDARD TYPE</b>	Analytical Standard (AS)
<b>LOT NUMBER</b>	00012251-WNG
<b>REPORT NUMBER</b>	CDXA-RSS-4445-02
<b>SAMPLE NUMBER</b>	CDXA-11-3129
<b>DATE OF SAMPLE</b>	05/13/2011
<b>DATE OF RE-EVALUATION</b>	07/13/2015 (1 <sup>st</sup> ); 03/05/2021 (2 <sup>nd</sup> )
<b>DATE OF REPORT</b>	03/24/2021



<b>CHEMICAL NAMES</b>	(Z,Z)-9,12-Octadecadienoic acid; 9-cis,12-cis-Linoleic acid; α-Linoleic acid
<b>CHEMICAL FORMULA</b>	C <sub>18</sub> H <sub>32</sub> O <sub>2</sub>
<b>MOLECULAR WEIGHT (MW)</b>	280.45
<b>CHEMICAL FAMILY</b>	Fatty acids
<b>CAS NUMBER</b>	[60-33-3]
<b>EC#(EINECS)</b>	200-470-9
<b>RTECS</b>	RF9990000

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
HPLC	0.700.10.2.METH22	≥ 75%	98.3%
Mass Spectrum	Direct Infusion, APCI (+)	Conforms	Conforms
Appearance	NA	NA	Clear liquid

**STORAGE CONDITIONS**

<b>STORAGE</b>	+4 °C in a dry place.
<b>EXPIRATION DATE</b>	03/2026 under the above conditions.

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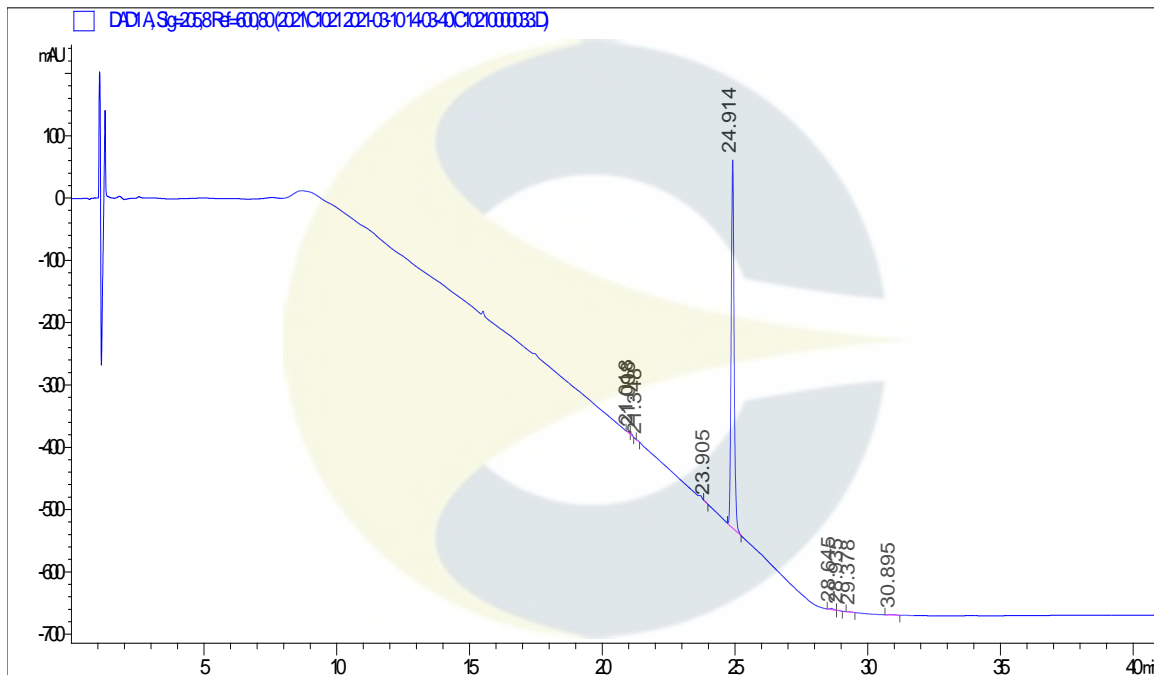
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### ANALYTICAL CONDITIONS

<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD); FINNIGAN LCQ-DECA 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>	1.0 µL
<b>INJECTION CONC.</b>	1.3 mg/mL in Methanol
<b>DETECTION</b>	205 ± 4 nm

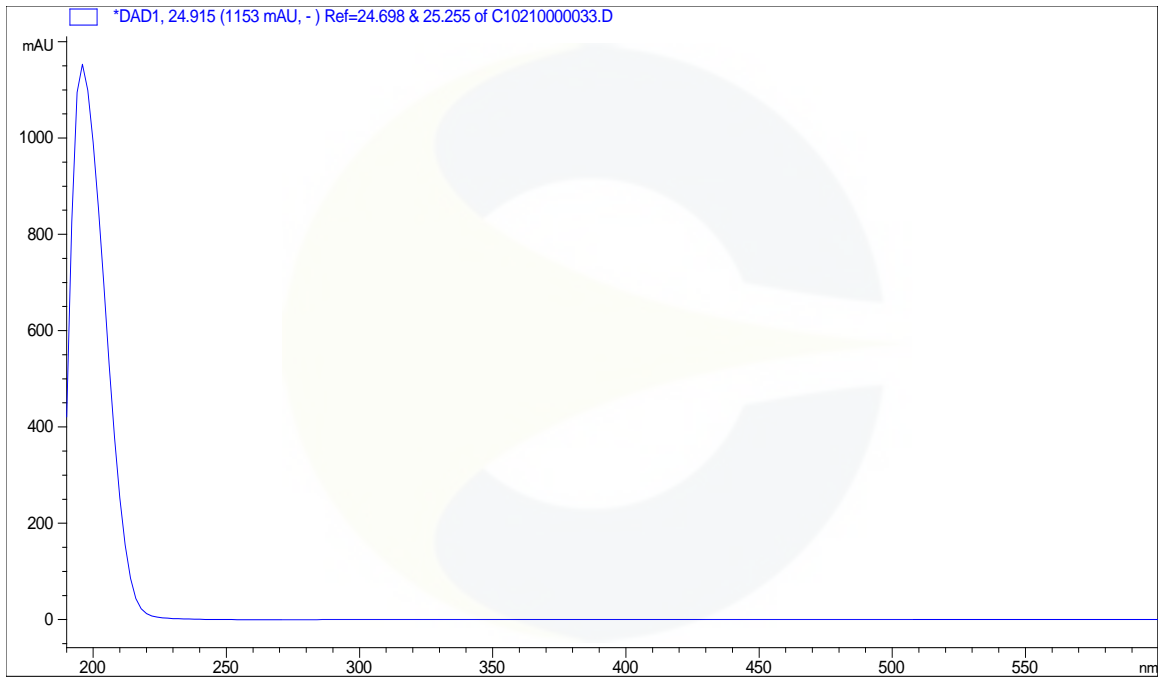
### HPLC CHROMATOGRAM OF LINOLEIC ACID (CDXA-11-3129)



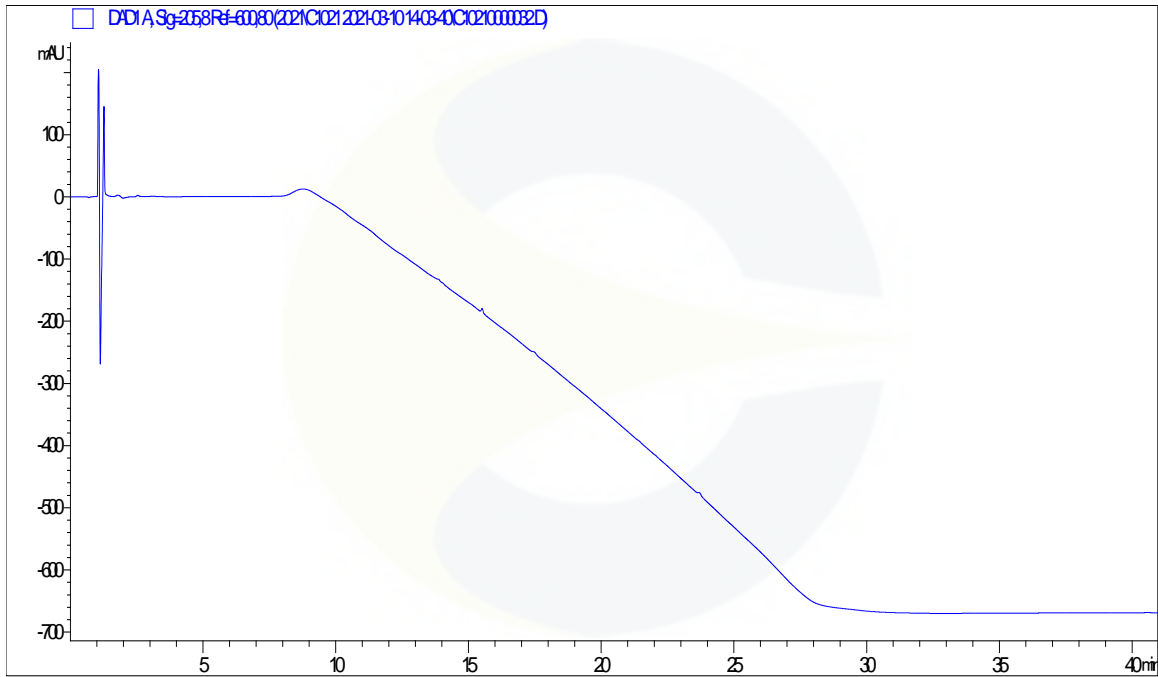
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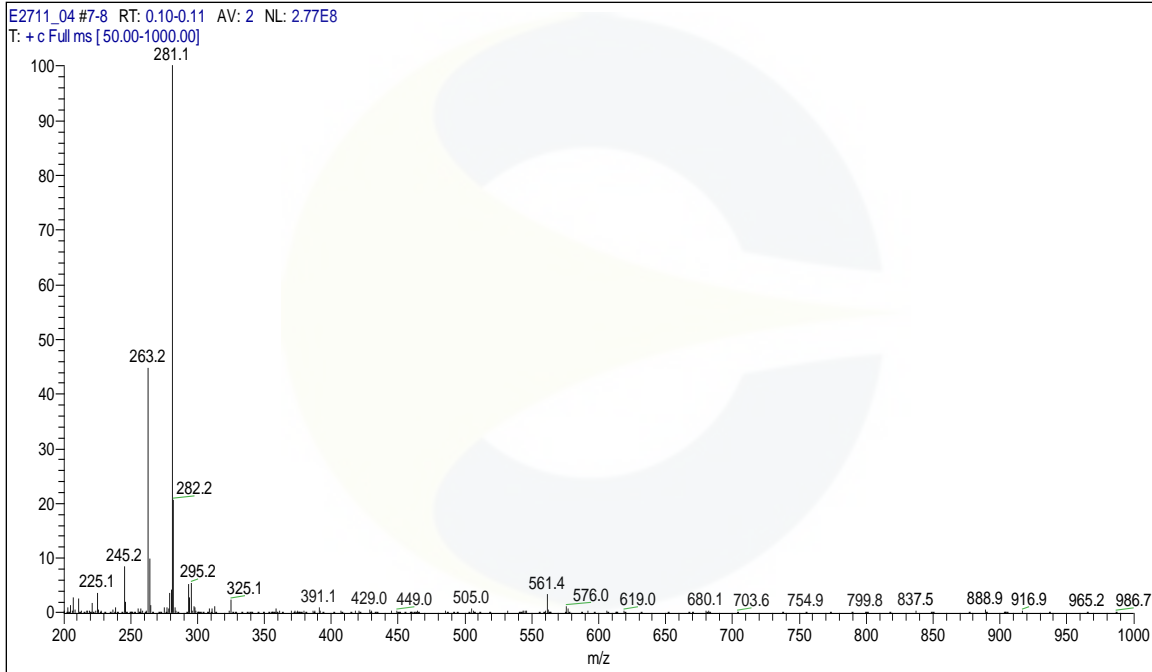
**UV SPECTRUM AT RT = 24.9 MINUTES**



**HPLC CHROMATOGRAM OF DILUENT BLANK**



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**MASS SPECTRUM OF LINOLEIC ACID (CDXA-11-3129)**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	05/27/2011	New report
01	08/14/2015	Passed re-evaluation by HPLC. Updated standard type, expiration date, analytical method, chromatogram, chemical names and melting point.
02	03/24/2021	Passed second re-evaluation by HPLC. Updated expiration date, analytical results, analytical conditions, chromatograms, and appearance. Removed melting point.

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