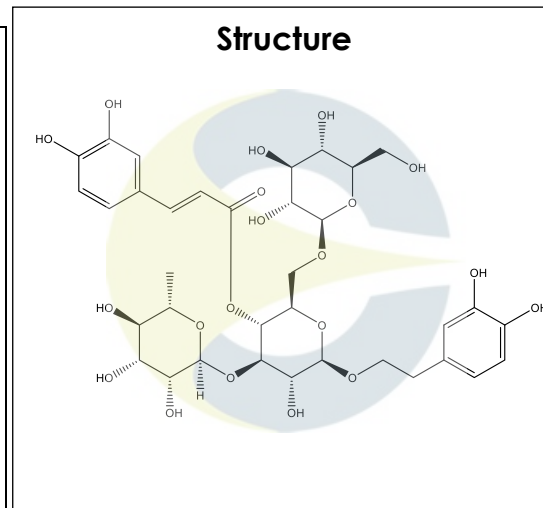


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<b>PRODUCT NAME</b>	Echinacoside
<b>PART NUMBER</b>	00005020
<b>STANDARD TYPE</b>	Primary (P)
<b>LOT NUMBER</b>	00005020-215
<b>REPORT NUMBER</b>	CDXA-RSS-6971-01
<b>SAMPLE NUMBER</b>	CDXA-15-010426
<b>DATE OF SAMPLE</b>	12/15/2015
<b>DATE OF RE-EVALUATION</b>	04/06/2020 (1 <sup>st</sup> )
<b>DATE OF REPORT</b>	05/05/2020



<b>CHEMICAL NAMES</b>	2-(3,4-Dihydroxyphenyl)ethyl-O-6-deoxy-α-L-mannopyranosyl-(1→3)-O-[β-D-glucopyranosyl-(1→6)]-β-D-glucopyranoside-4-[3-(3,4-dihydroxyphenyl)-2-propenoate]
<b>CHEMICAL FORMULA</b>	C <sub>35</sub> H <sub>46</sub> O <sub>20</sub>
<b>MOLECULAR WEIGHT (MW)</b>	786.73
<b>CHEMICAL FAMILY</b>	Phenolic acids
<b>CAS NUMBER</b>	[82854-37-3]
<b>EC#(EINECS)</b>	617-397-7
<b>RTECS</b>	LZ5786500

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	NA	88.5%
HPLC	0.700.10.2.METH22	NA	98.8%
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-9.0-000115	NA	Methanol – 0.1%
Water	0.700.12.37	NA	10.3%
Appearance	NA	NA	White powder

ADJUSTED PURITY: 88.5% IS BASED ON (100 - 0.1 SOLVENTS - 10.3 WATER) X 98.8% HPLC

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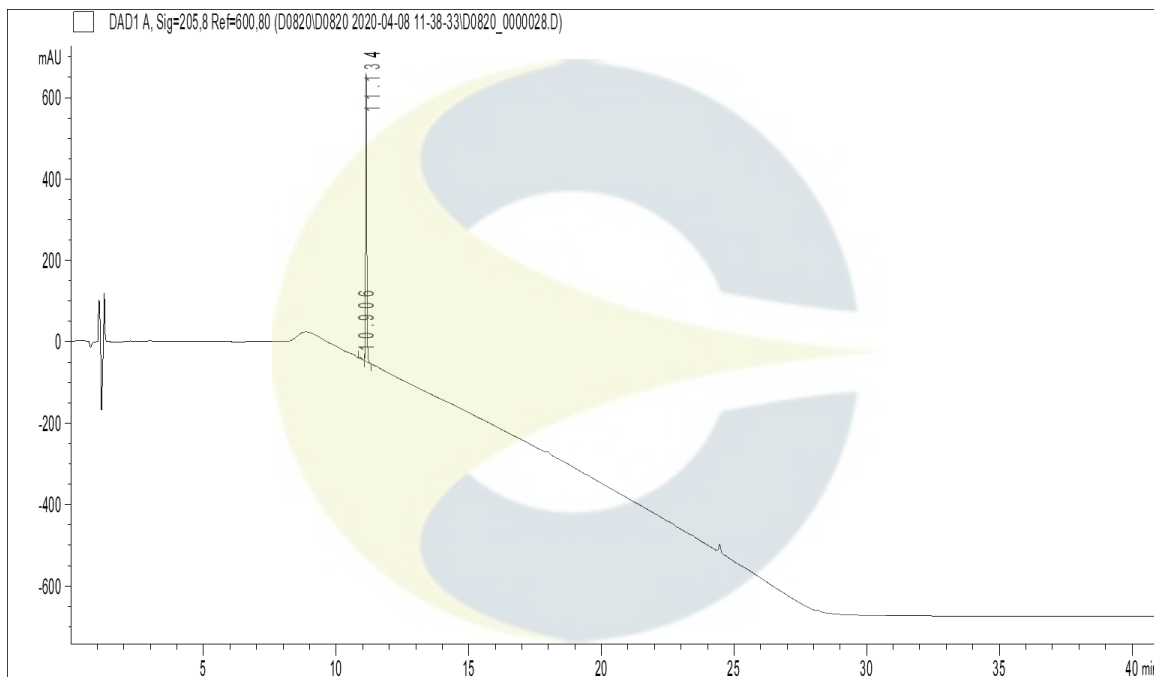
## STORAGE CONDITIONS

**STORAGE** -20 °C in a dry place.  
**EXPIRATION DATE** 04/2025 under the above conditions.

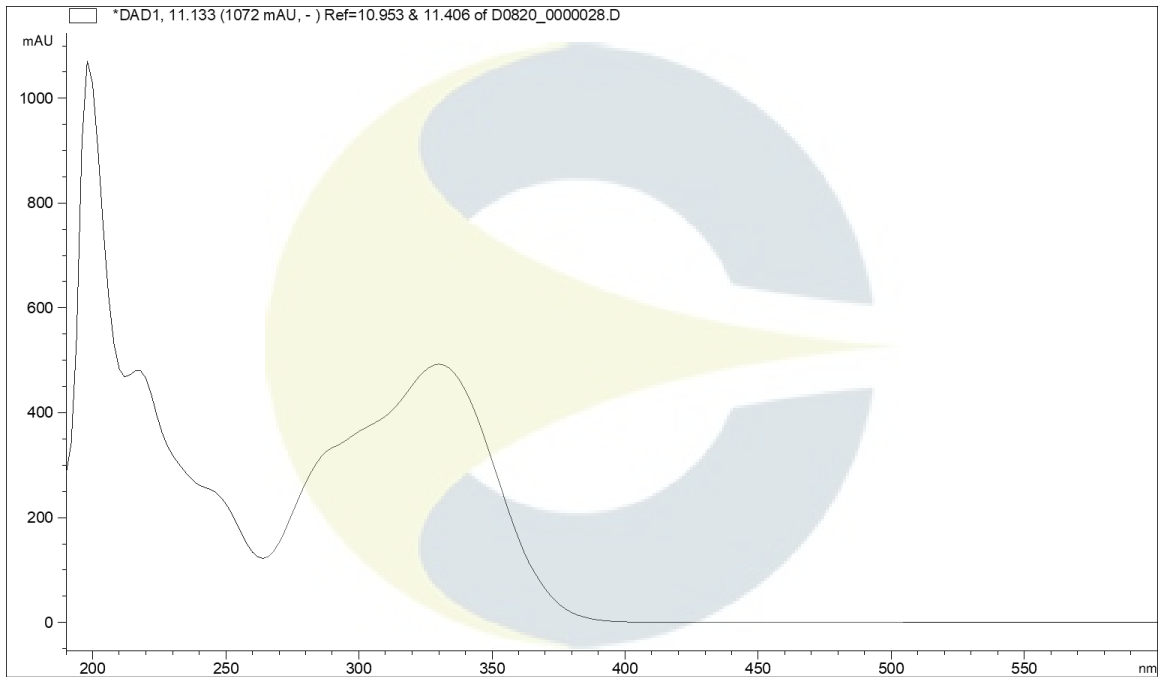
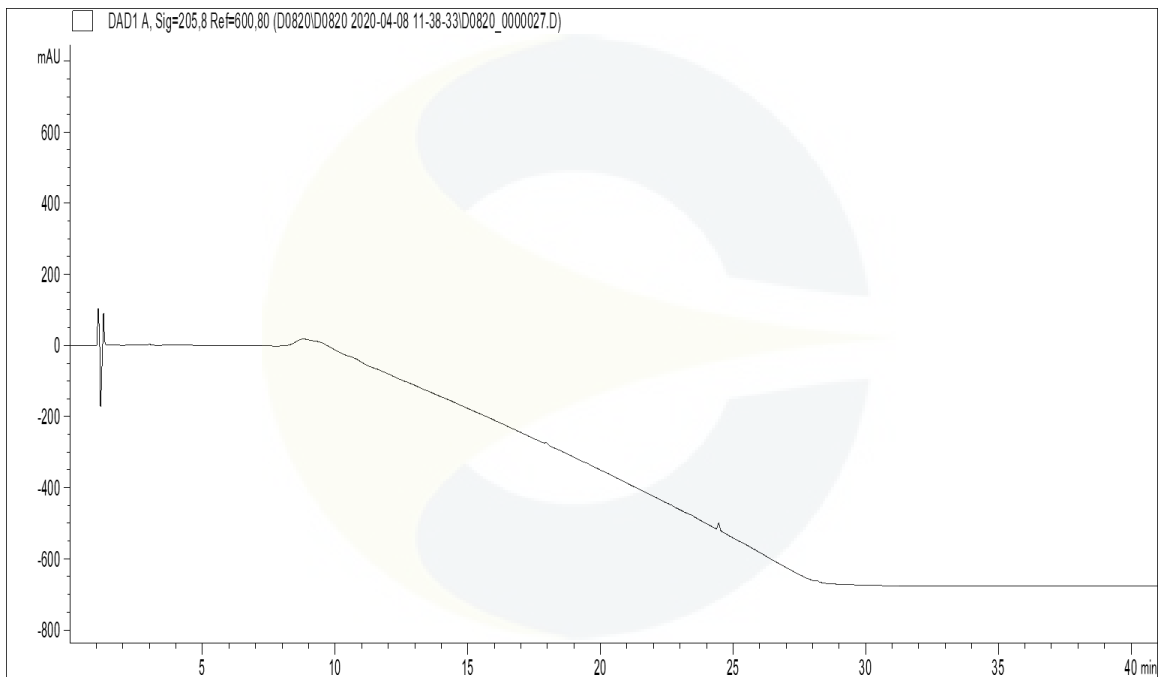
## ANALYTICAL CONDITIONS

**INSTRUMENT** AGILENT 1260 HPLC UV-VIS (DAD); AGILENT 6510 QTOF  
**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.  
**COLUMN TEMP.** 60 °C  
**FLOW RATE** 0.4 mL/minute  
**INJECTION VOL.** 0.4 µL  
**INJECTION CONC.** 1.1 mg/mL in Methanol  
**DETECTION** 205 ± 4 nm

## HPLC CHROMATOGRAM OF ECHINACOSIDE (CDXA-15-010426)



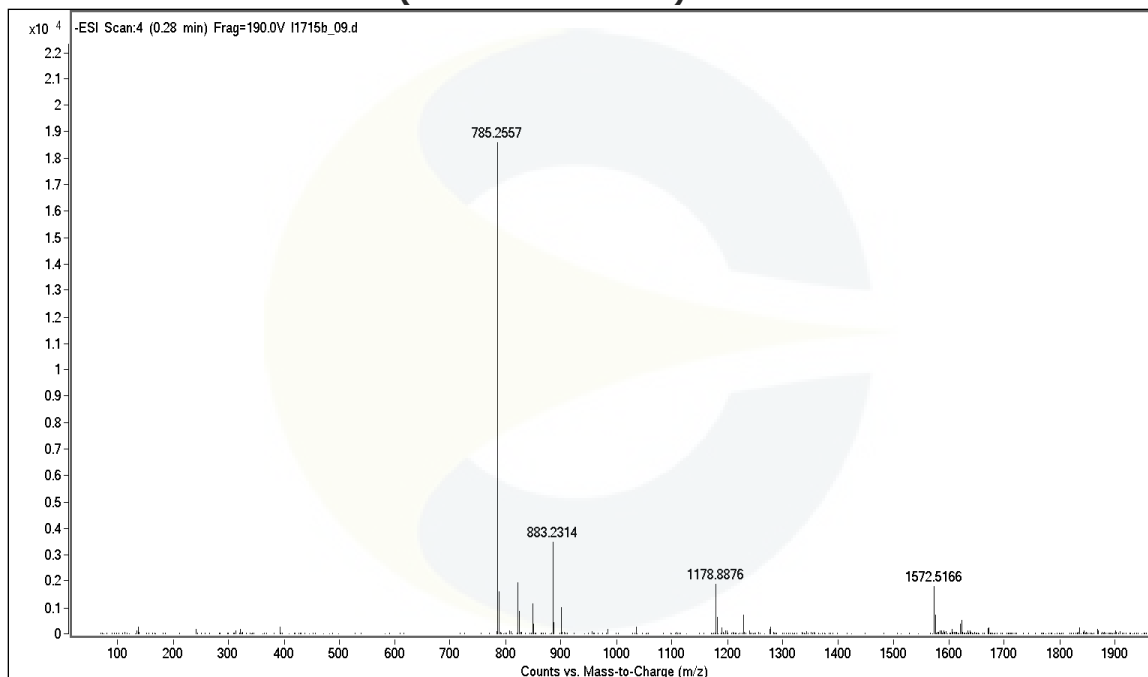
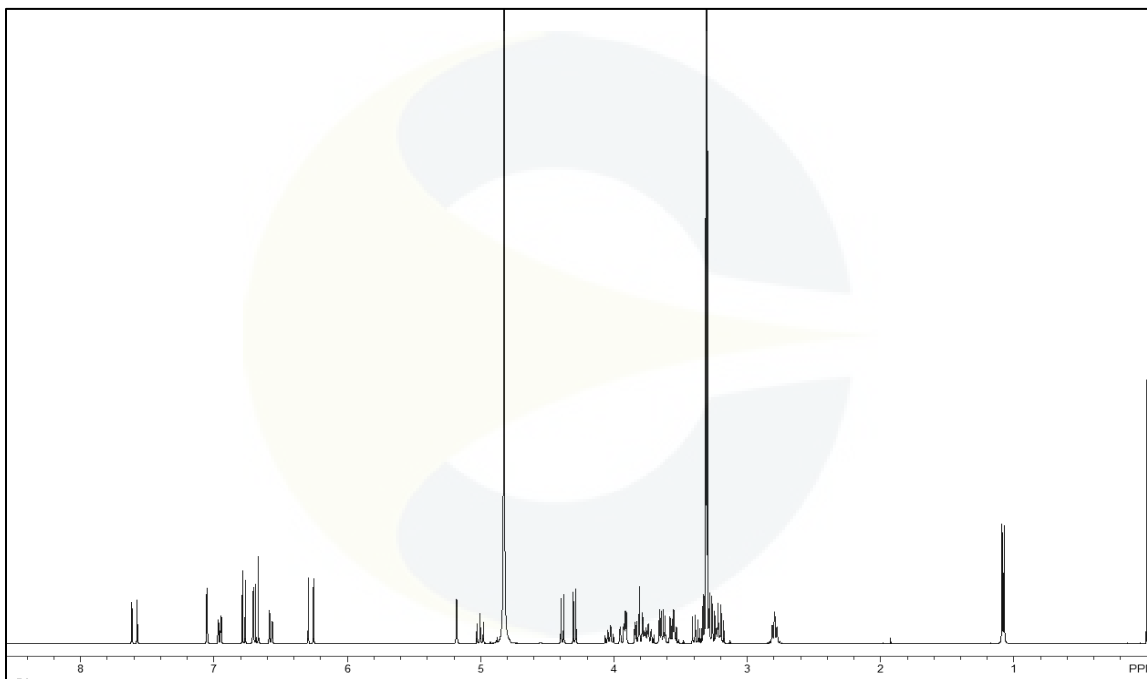
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**UV SPECTRUM AT RT 11.1 MINUTES**

**HPLC CHROMATOGRAM OF DILUENT BLANK**


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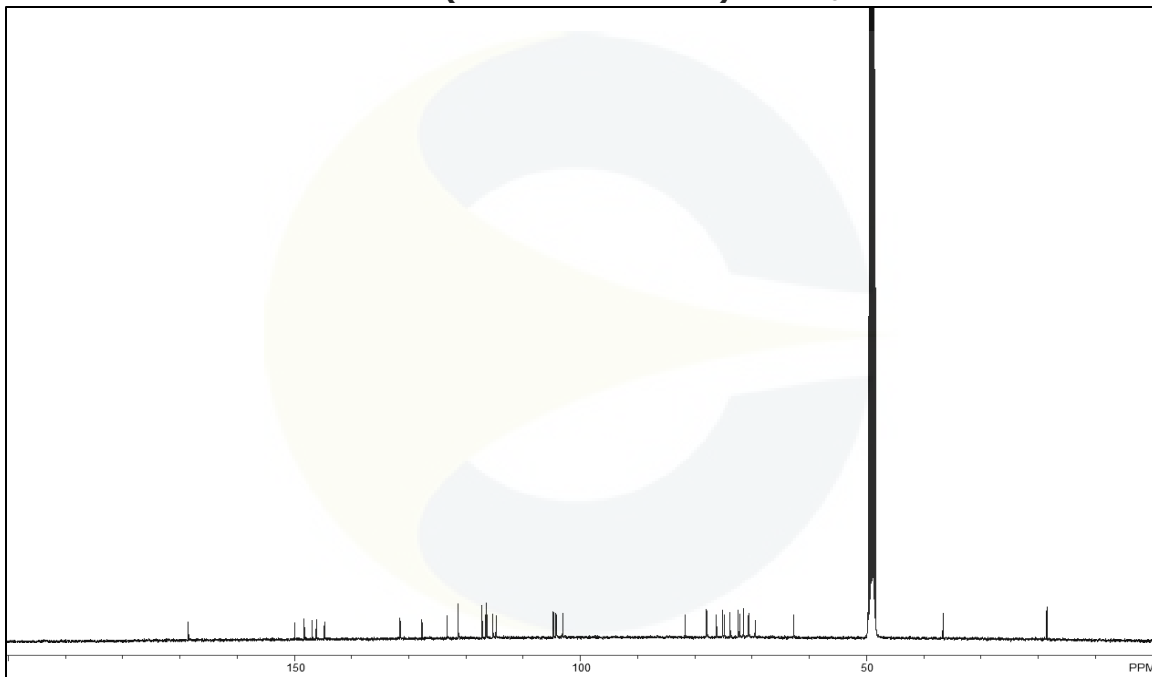
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 Email: customerservice@lifetechindia.com Website: www.lifetechindia.com

**MASS SPECTRUM OF ECHINACOSIDE (CDXA-15-010426)**

**<sup>1</sup>H-NMR SPECTRUM OF ECHINACOSIDE (CDXA-15-010426) IN CD<sub>3</sub>OD**


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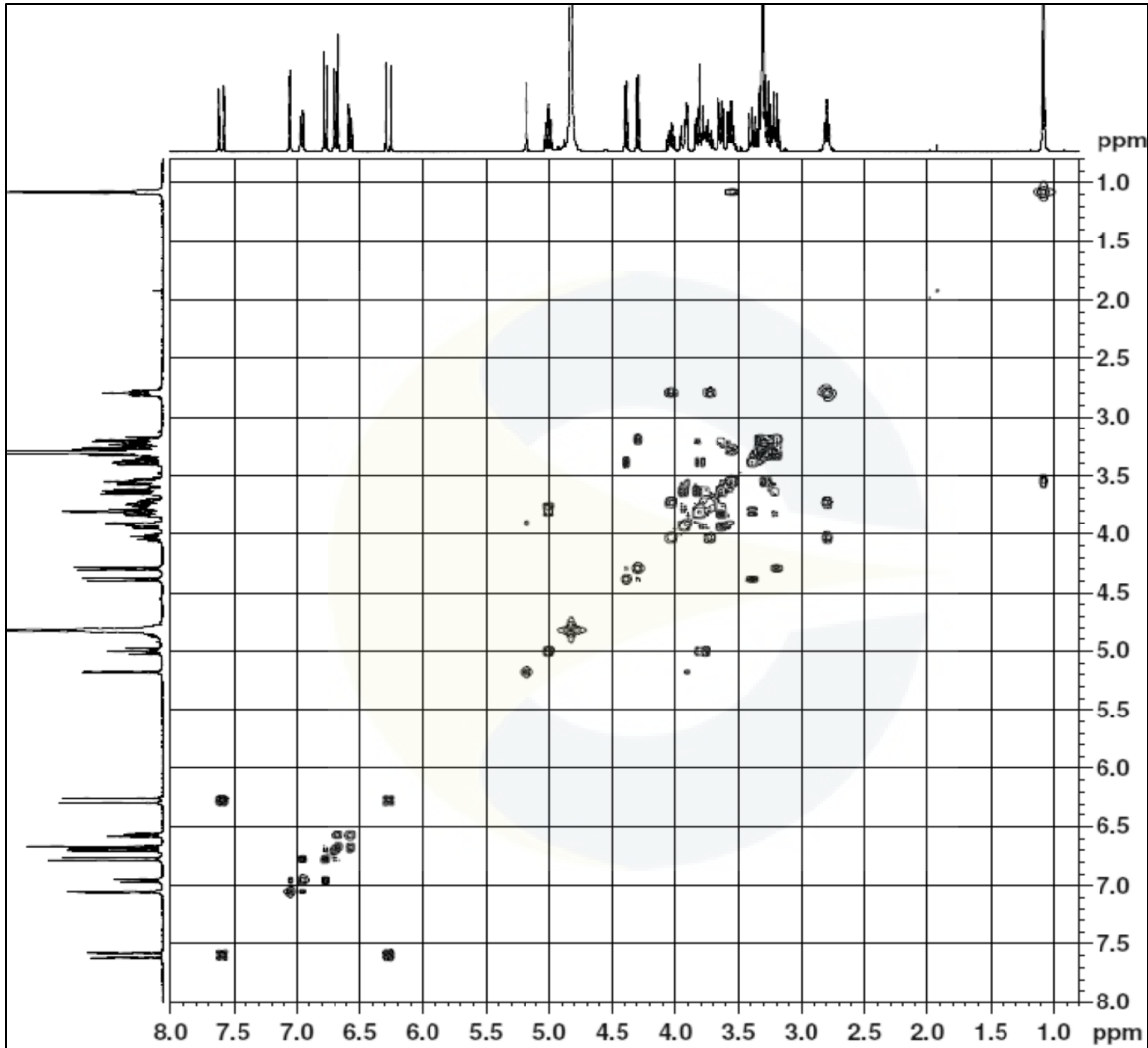
**<sup>13</sup>C-NMR SPECTRUM OF ECHINACOSIDE (CDXA-15-010426) IN CD<sub>3</sub>OD**



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**COSY-NMR SPECTRUM OF ECHINACOSIDE (CDXA-15-010426) IN CD<sub>3</sub>OD**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	01/15/2016	New report
01	05/05/2020	Passed re-evaluation by HPLC and KF. Updated chromatograms, analytical conditions, EINECS number, structure, purity, expiration date and removed melting point

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