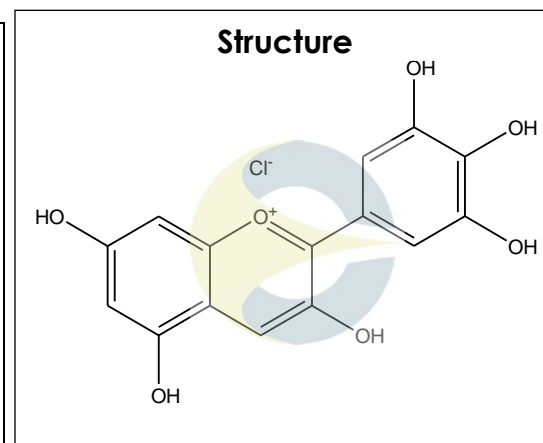


## Certificate of Analysis

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<b>PRODUCT NAME</b>	Delphinidin Chloride
<b>PART NUMBER</b>	00004125
<b>STANDARD TYPE</b>	Primary (P)
<b>LOT NUMBER</b>	00004125-517
<b>REPORT NUMBER</b>	CDXA-RSS-8854-00
<b>SAMPLE NUMBER</b>	CDXP-20-00127
<b>DATE OF SAMPLE</b>	03/03/2020
<b>DATE OF REPORT</b>	04/01/2020



<b>CHEMICAL NAMES</b>	Delphinidol; 3,5,7-Trihydroxy-2-(3,4,5-trihydroxyphenyl)-1-benzopyrylium chloride (1:1); Ephdine
<b>CHEMICAL FORMULA</b>	C <sub>15</sub> H <sub>11</sub> O <sub>7</sub> Cl
<b>MOLECULAR WEIGHT (MW)</b>	338.70
<b>CHEMICAL FAMILY</b>	Anthocyanidins
<b>CAS NUMBER</b>	[528-53-0]
<b>EC#(EINECS)</b>	208-437-0
<b>RTECS</b>	DK1310000

## ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	NA	89.5%
HPLC	0.700.10.2.METH22	NA	94.7%
NMR	0.700.12.4	Conforms to structure	Conforms to structure
Mass Spectrum	0.700.12.27	Conforms	Conforms
Residual Solvent*	USP <467>	NA	ACN – 0.1%; EtOH – 0.1% DCM – 1.6%; Diethyl ether – 0.6%
Water	0.700.12.37	NA	3.1%
Appearance	NA	NA	Dark Purple Powder

\*Testing performed at an ISO 17025 accredited subcontracted laboratory.

ADJUSTED PURITY: 89.5% IS BASED ON (100 - 2.4 SOLVENTS - 3.1 WATER) X 94.7% HPLC

## STORAGE CONDITIONS

<b>STORAGE</b>	-20 °C in a dry place.
<b>EXPIRATION DATE</b>	03/2025 under the above conditions.

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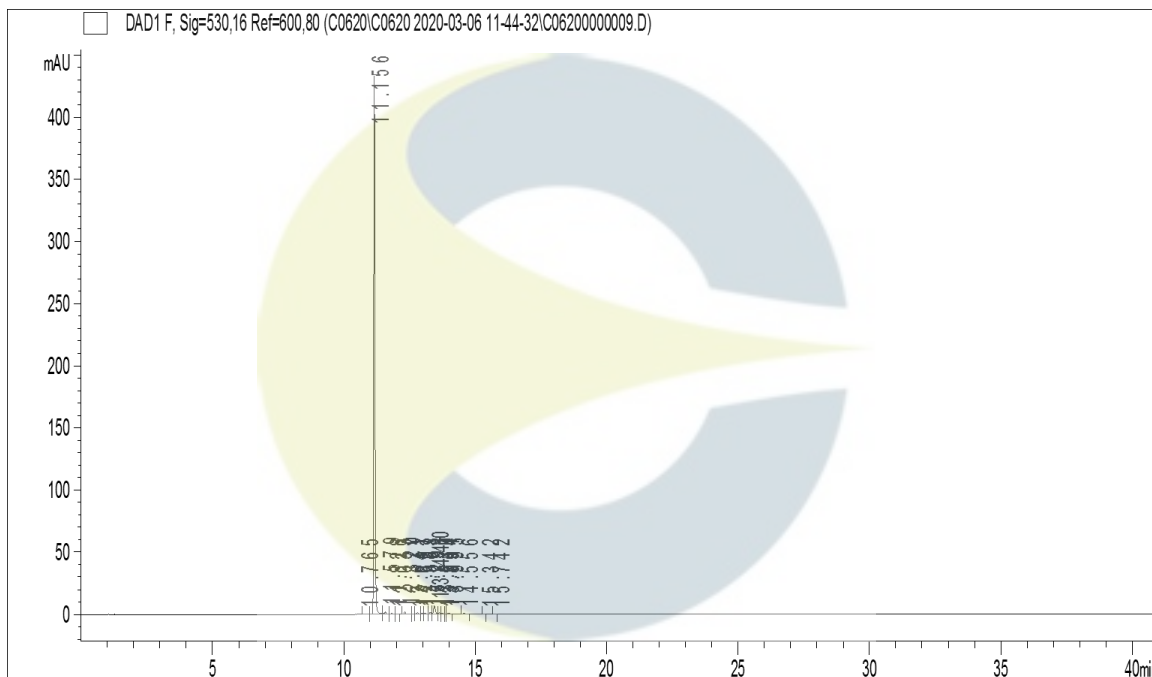
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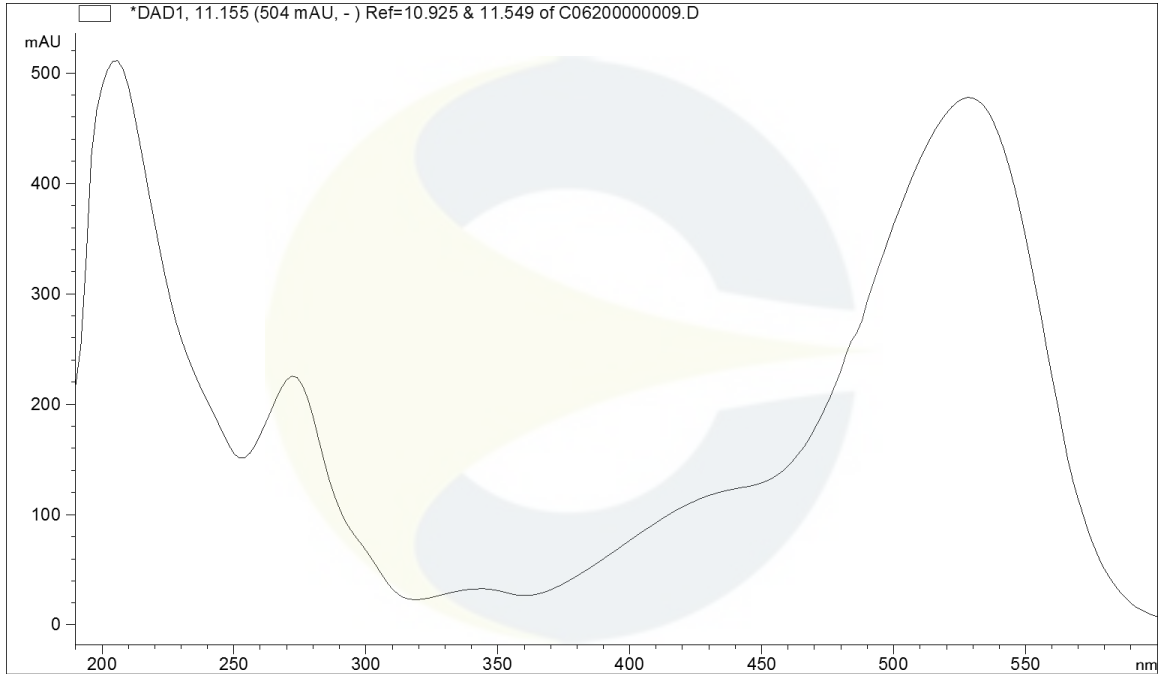
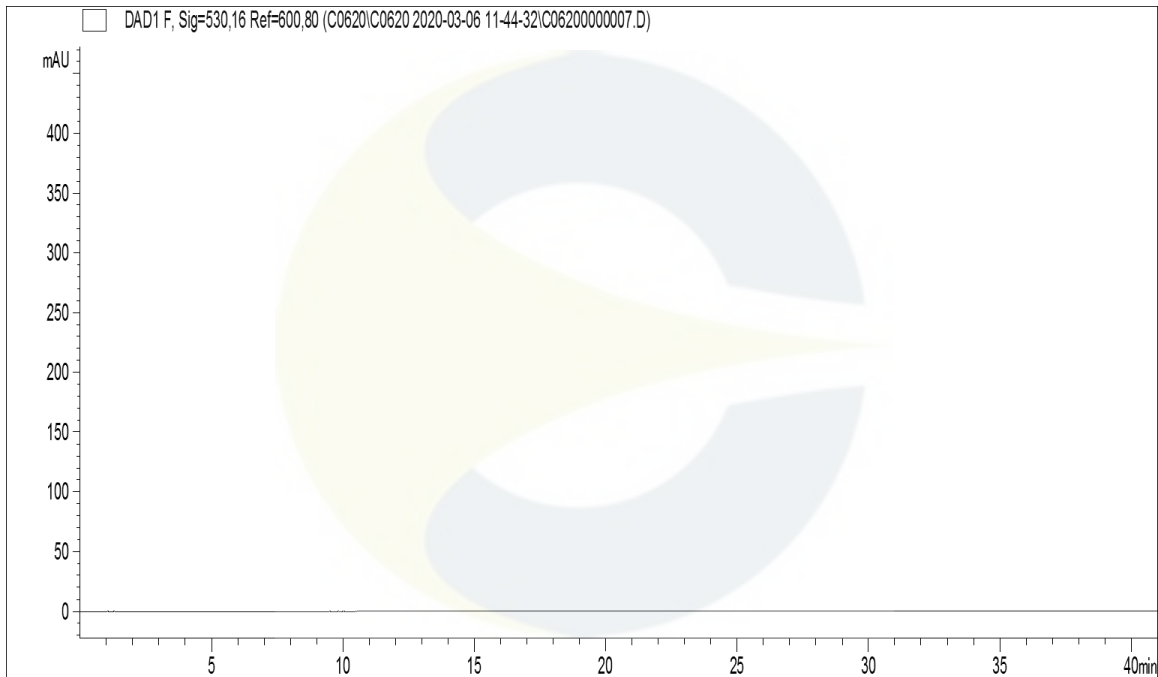
## ANALYTICAL CONDITIONS

<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD); AB-SCIEX 6600 TRIPLE TOF
<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 Milli-Q 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.
<b>COLUMN TEMP.</b>	60 °C
<b>FLOW RATE</b>	0.4 mL/minute
<b>INJECTION VOL.</b>	0.4 µL
<b>INJECTION CONC.</b>	1.0 mg/mL in Methanol
<b>DETECTION</b>	530 ± 8 nm

## HPLC CHROMATOGRAM OF DELPHINIDIN CHLORIDE (CDXP-20-00127)



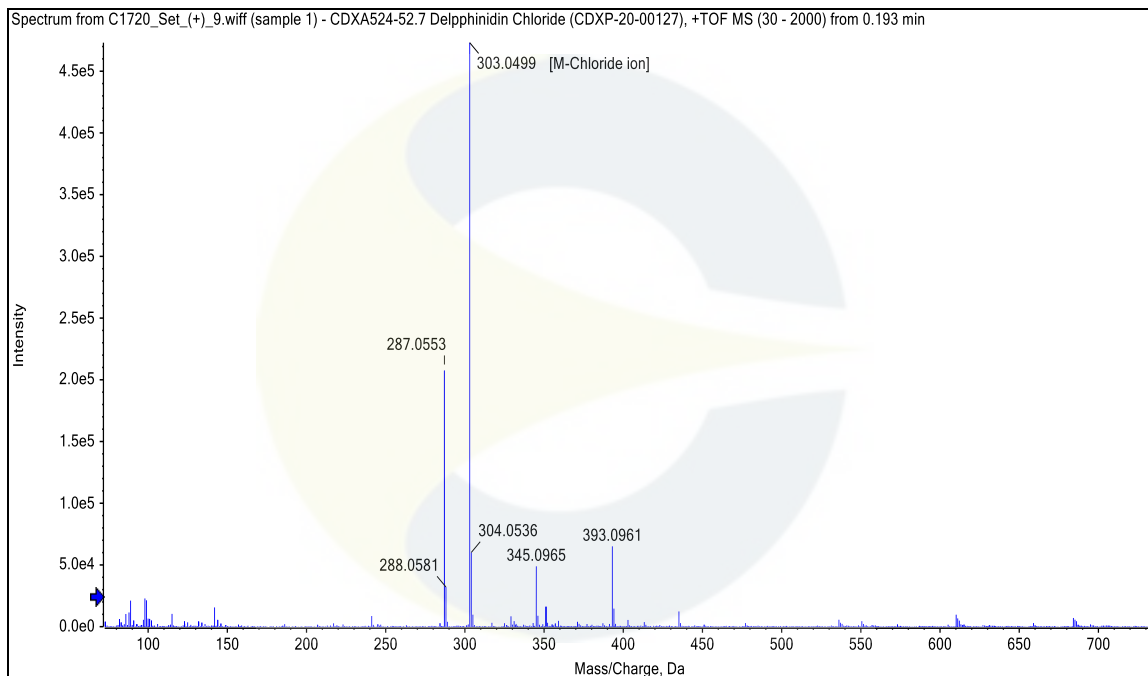
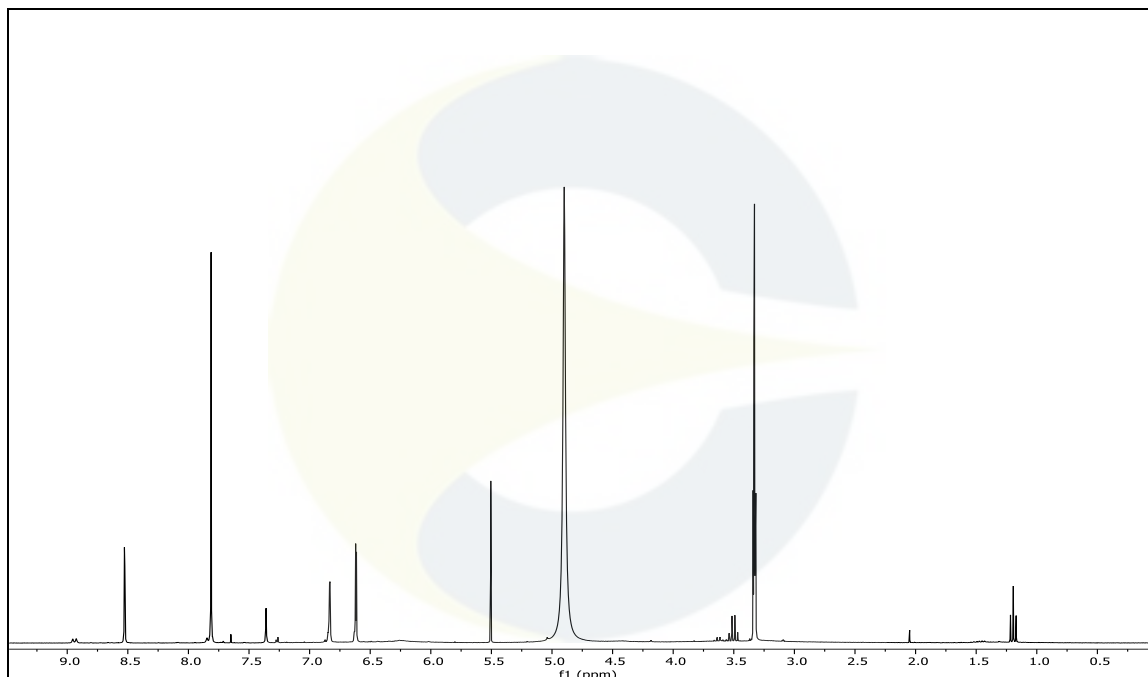
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**UV SPECTRUM AT RT = 11.2 MINUTES**

**HPLC CHROMATOGRAM OF DILUENT BLANK**


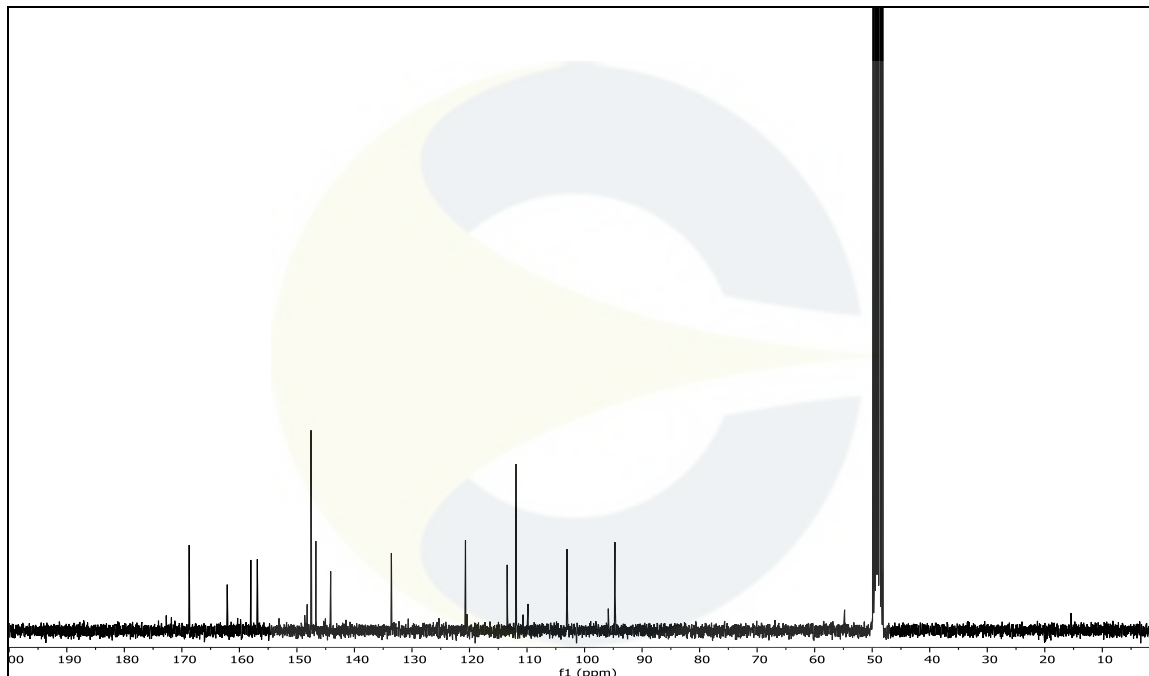
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 Email: customerservice@lifetechindia.com Website: www.lifetechindia.com

**MASS SPECTRUM OF DELPHINIDIN CHLORIDE (CDXP-20-00127)**

**<sup>1</sup>H-NMR SPECTRUM OF DELPHINIDIN CHLORIDE (CDXP-20-00127) IN CD<sub>3</sub>OD**


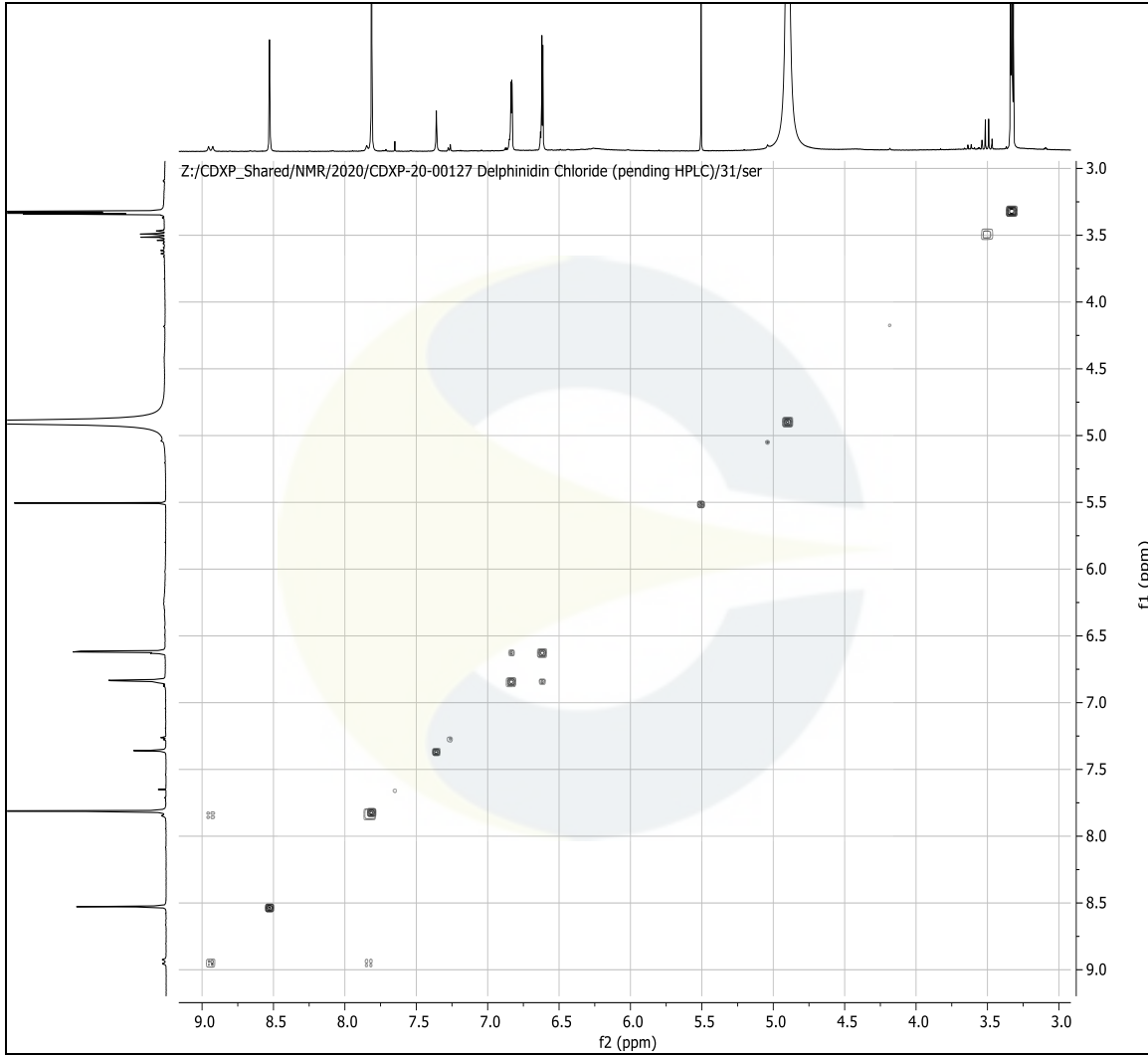
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**<sup>13</sup>C-NMR SPECTRUM DELPHINIDIN CHLORIDE (CDXP-20-00127) IN CD<sub>3</sub>OD**

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**COSY-NMR SPECTRUM OF DELPHINIDIN CHLORIDE (CDXP-20-00127) IN CD<sub>3</sub>OD**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	04/01/2020	New report

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