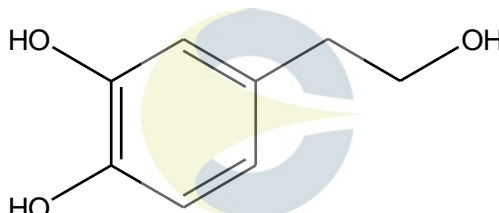


**Certificate of Analysis**
*For Laboratory Use Only*

<b>PRODUCT NAME</b>	Hydroxytyrosol	<p style="text-align: center;"><b>Structure</b></p> 
<b>PART NUMBER</b>	00008728	
<b>STANDARD TYPE</b>	Primary (P)	
<b>LOT NUMBER</b>	00008728-527	
<b>REPORT NUMBER</b>	CDXA-RSS-8635-00	
<b>SAMPLE NUMBER</b>	CDXP-19-00476	
<b>DATE OF SAMPLE</b>	08/14/2019	
<b>DATE OF REPORT</b>	09/19/2019	

<b>CHEMICAL NAMES</b>	3,4-Dihydroxyphenylethanol; 4-(2-Hydroxyethyl)-1,2-benzenediol
<b>CHEMICAL FORMULA</b>	C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>
<b>MOLECULAR WEIGHT (MW)</b>	154.16
<b>CHEMICAL FAMILY</b>	Phenolic acids
<b>CAS NUMBER</b>	[10597-60-1]
<b>EC#(EINECS)</b>	600-704-3
<b>RTECS</b>	CZ8955700

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	NA	98.7%
HPLC	99.1-04-1.0-000684	NA	99.9%
NMR	0.700.12.4	Conforms to structure	Conforms to structure
Mass Spectrum	0.700.12.27	Conforms	Conforms
Residual Solvent	USP 467	NA	ND
Water	0.700.12.37	NA	1.2%
Appearance	NA	NA	White solid

ADJUSTED PURITY: 98.7% IS BASED ON (100 - 0.0 SOLVENTS - 1.2 WATER) X 99.9% HPLC

**STORAGE CONDITIONS**

<b>STORAGE</b>	+4 °C in a dry place.
<b>EXPIRATION DATE</b>	08/2024 under the above conditions.

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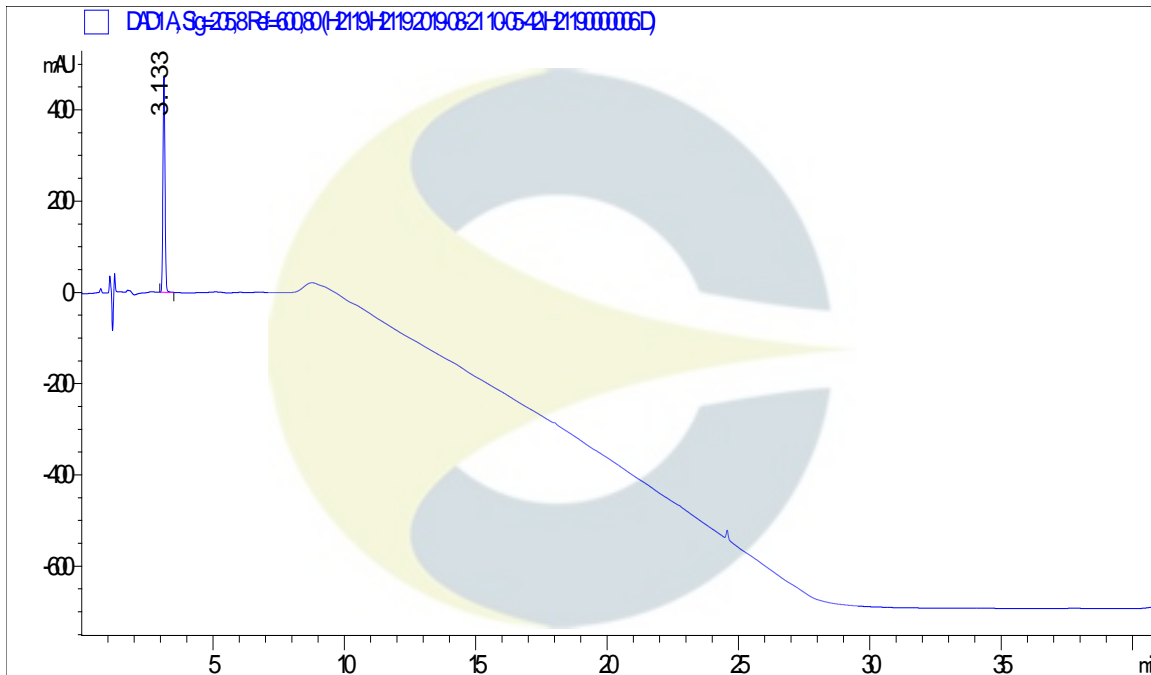
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## ANALYTICAL CONDITIONS

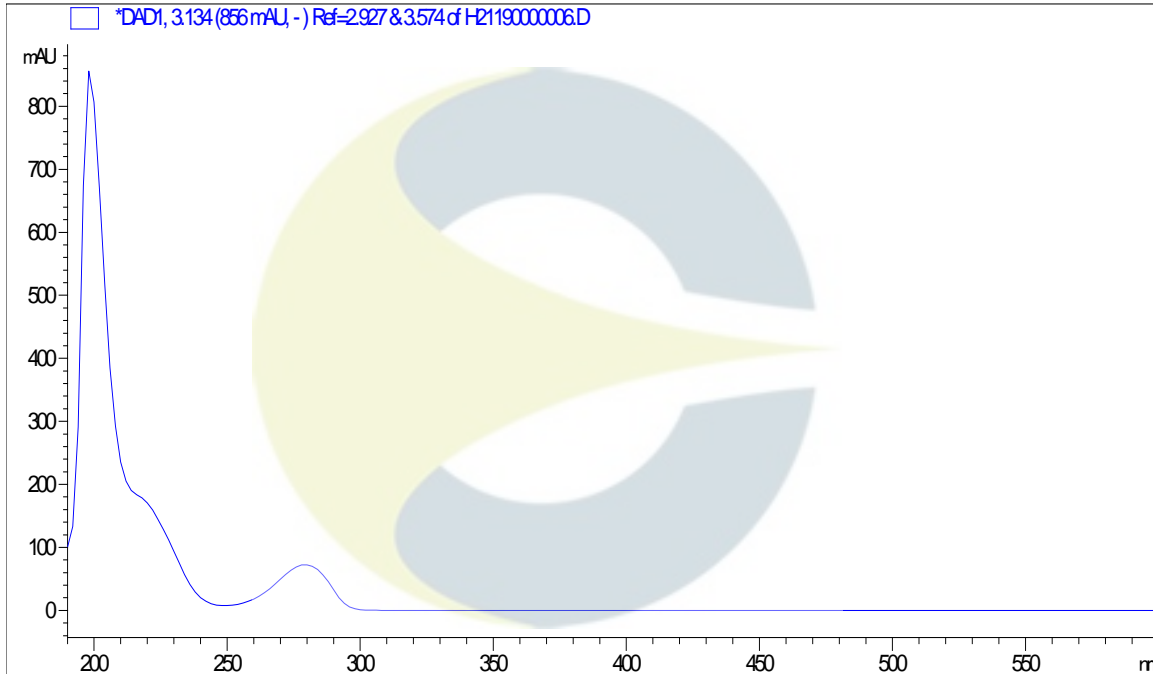
<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD); AB-SCIEX 6600 TRIPLE TOF
<b>COLUMN</b>	Phenomenex Luna C18(2) 150 x 2.00 mm, 5 µm particle size
<b>MOBILE PHASE</b>	A - 0.1% Trifluoroacetic acid in Ultrapure water, B - Acetonitrile; Isocratic 5% B for 5 minutes, then increasing to 95% B over 20 minutes. 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>	0.1 µL
<b>INJECTION CONC.</b>	1.4 mg/mL in Methanol
<b>DETECTION</b>	205 ± 4 nm

## HPLC CHROMATOGRAM OF HYDROXYTYROSOL (CDXP-19-00476)

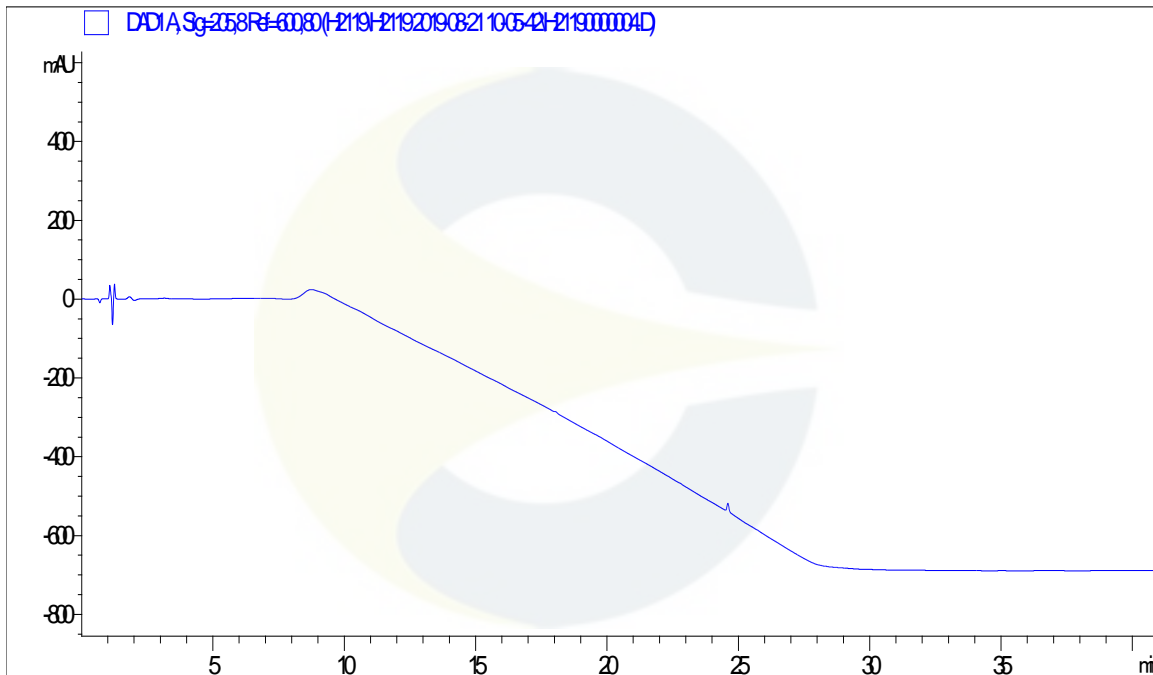


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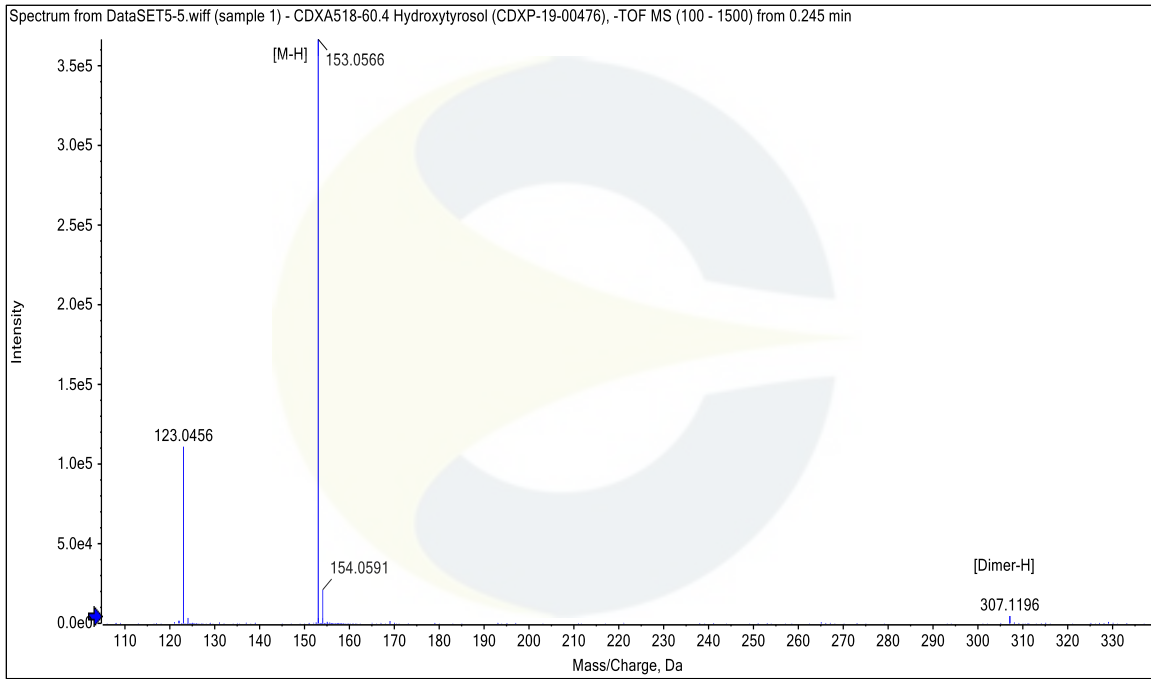
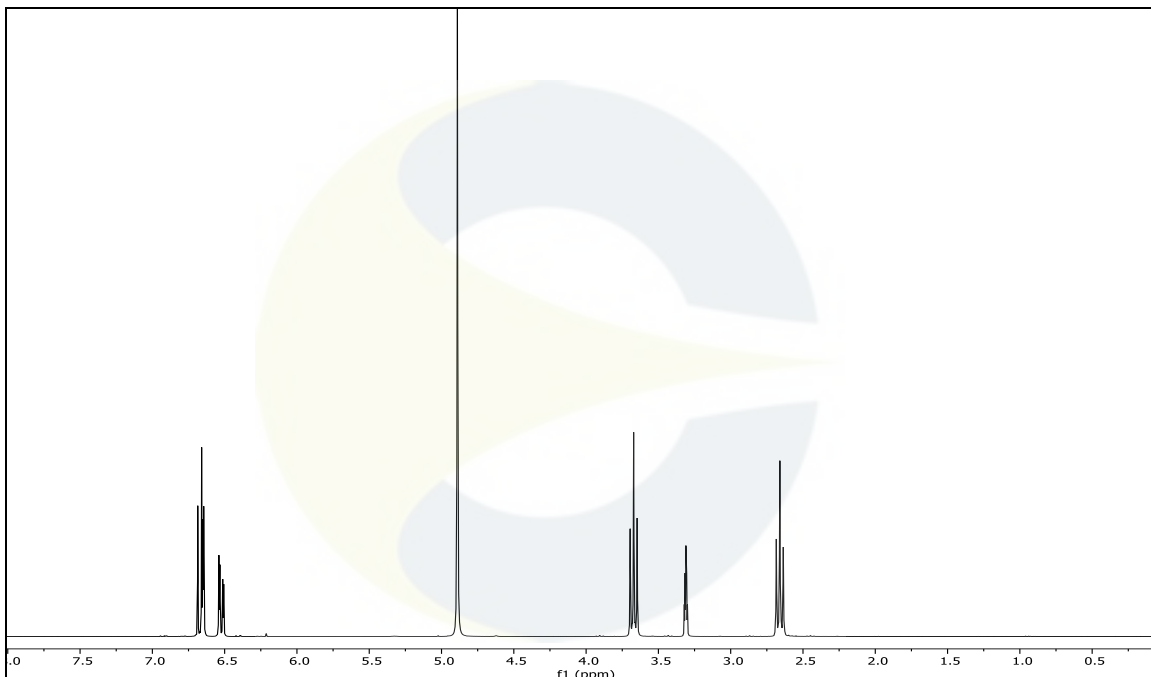
### UV SPECTRUM AT RT = 3.1 MINUTES



### HPLC CHROMATOGRAM OF DILUENT BLANK

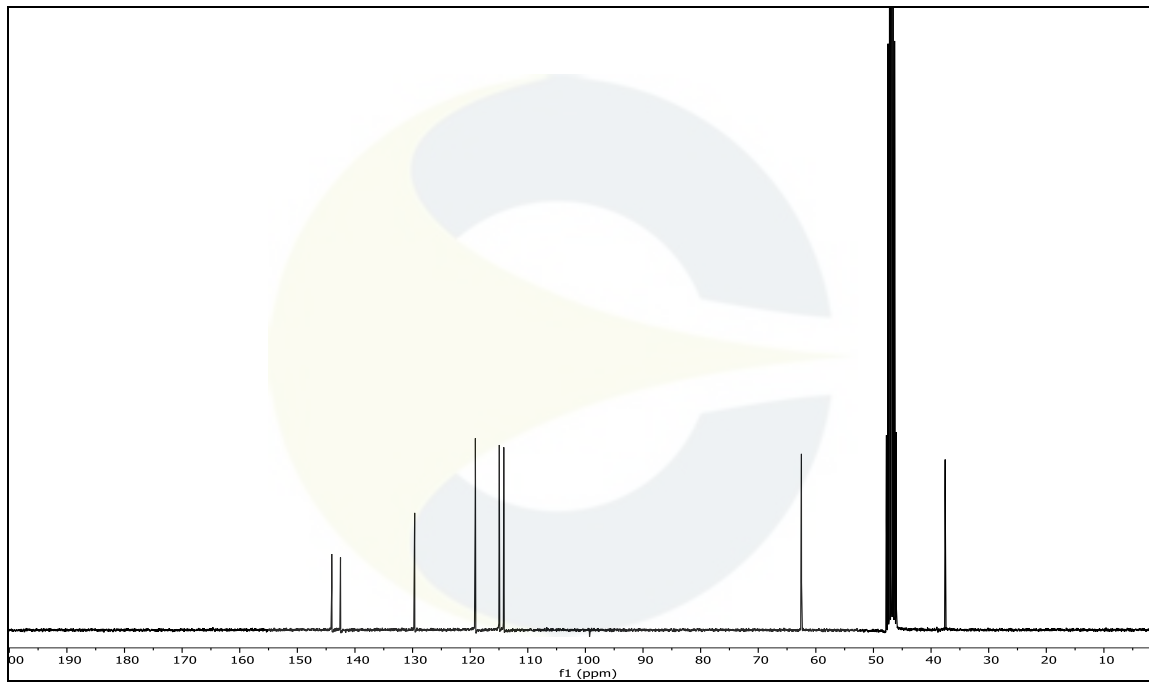


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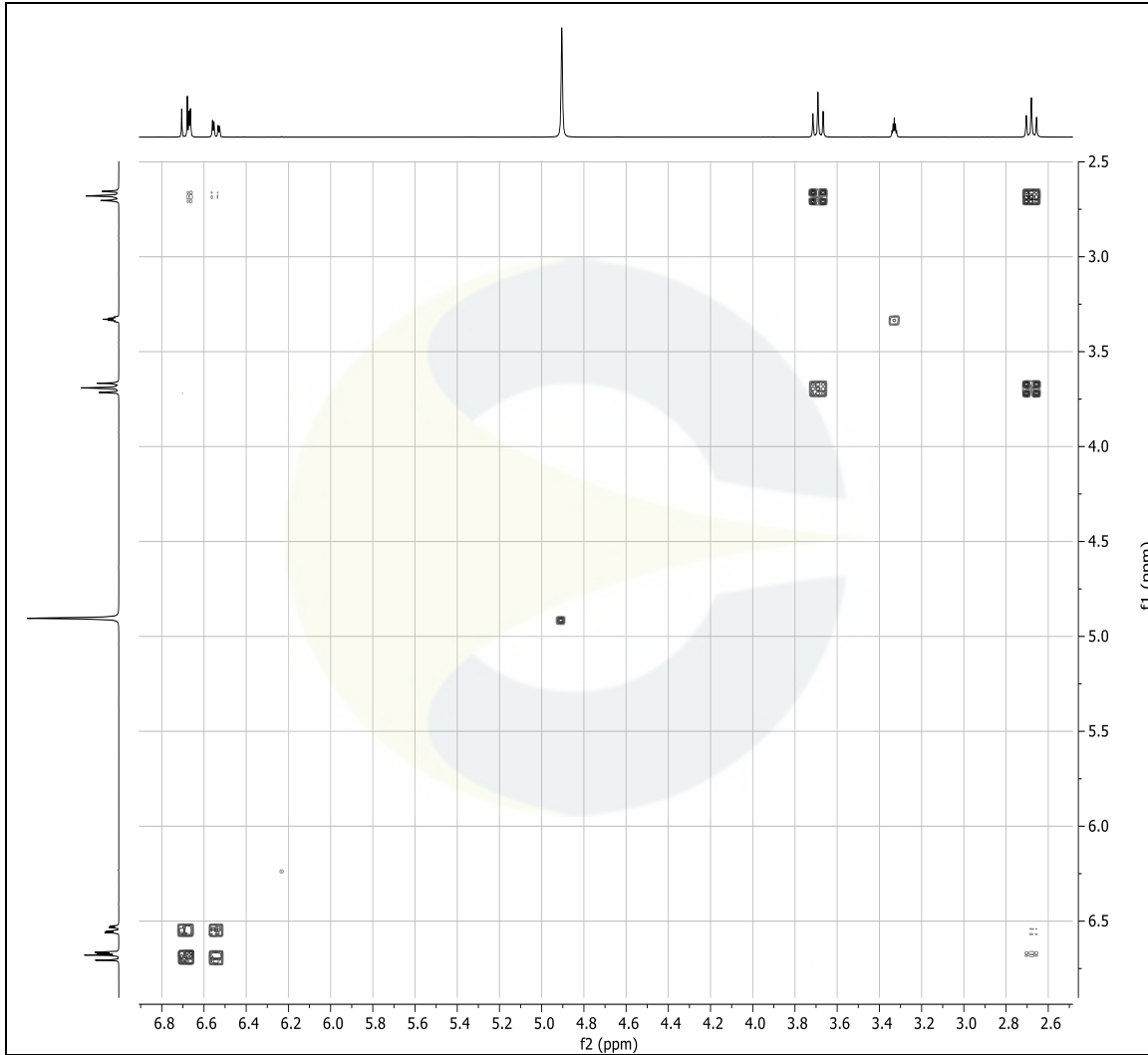
**MASS SPECTRUM OF HYDROXYTYROSOL (CDXP-19-00476)**

**<sup>1</sup>H-NMR SPECTRUM OF HYDROXYTYROSOL (CDXP-19-00476) IN CD<sub>3</sub>OD**


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<sup>13</sup>C-NMR SPECTRUM HYDROXYTYROSOL (CDXP-19-00476) IN CD<sub>3</sub>OD



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**COSY-NMR SPECTRUM OF HYDROXYTYROSOL (CDXP-19-00476) IN CD<sub>3</sub>OD**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	09/19/2019	New report

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