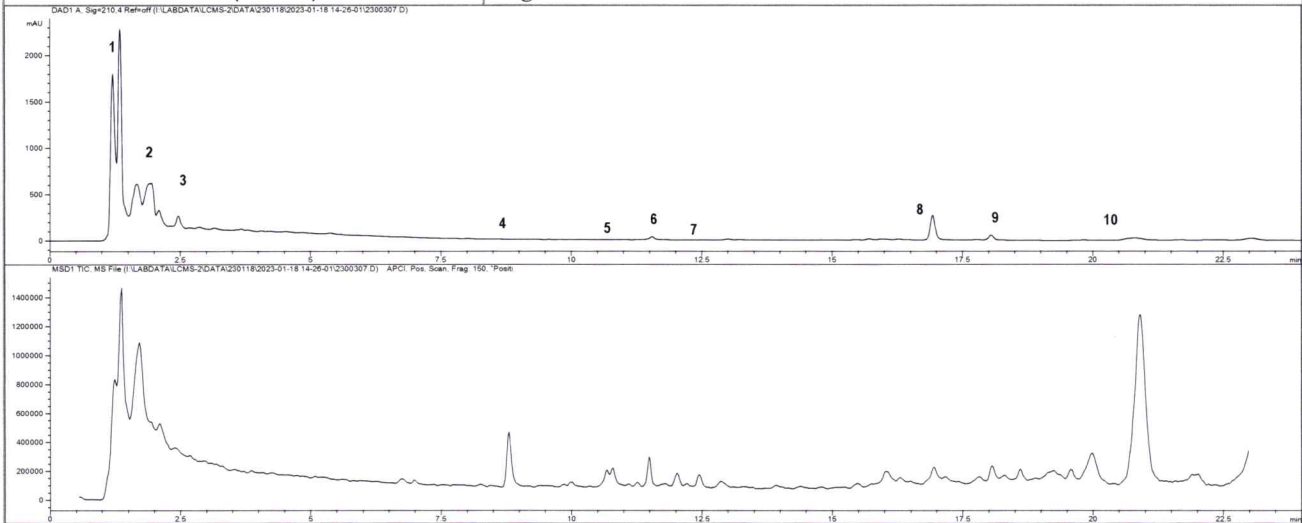


## CERTIFICATE OF ANALYSIS

<b>SAMPLE NAME</b>		Organic Maitake Mushroom Powder - Evolution Botanicals	
<b>FORM</b>		Powder	
<b>CUSTOMER NAME</b>		Evolution Botanicals Australia PTY LTD	
<b>CERTIFICATION DATE</b>		15 February 2023	
<b>CUSTOMER REFERENCE</b>		Batch Evolution Botanicals 079 BBD 12/12/24	
<b>ARL JOB #</b>	A230089	<b>LAB REF. #</b>	ARL2300307
<b>ANALYSIS</b>	Herb Authentication	<b>METHOD</b>	ARL-TM125
<b>TEST PROFILE (below)</b>		Organic Maitake Mushroom Powder - Evolution Botanicals Batch	



**TABLE 1. PEAK IDENTIFICATION**

Peak #	RT (min)	Fragment ions [M+H]	Tentative ID (MW)
1	1.2, 1.4	105, 120, 166	mixed peaks - amino acid, nucleotides
2	1.7 - 2.1	136, 268, 188, 205	mixed peak - nucleotide - adenosine, tryptophan, polysaccharides
3	2.4	136, 298	phenolic derivative
4	8.7	318	amine derivative
5	10.7, 10.8	390	amine derivative
6	11.5	478	amine derivative
7	12.1, 12.5	418, 454, 480	amine derivatives
8	17.0	393, 411, 428, 454	hydroxyergosterol derivative
9	18.1	311, 340, 372, 397	ergosterol derivative
10	20.0, 20.9	534, 696, 714, 548, 710, 728	fungal cerebrosides

**COMMENTS**

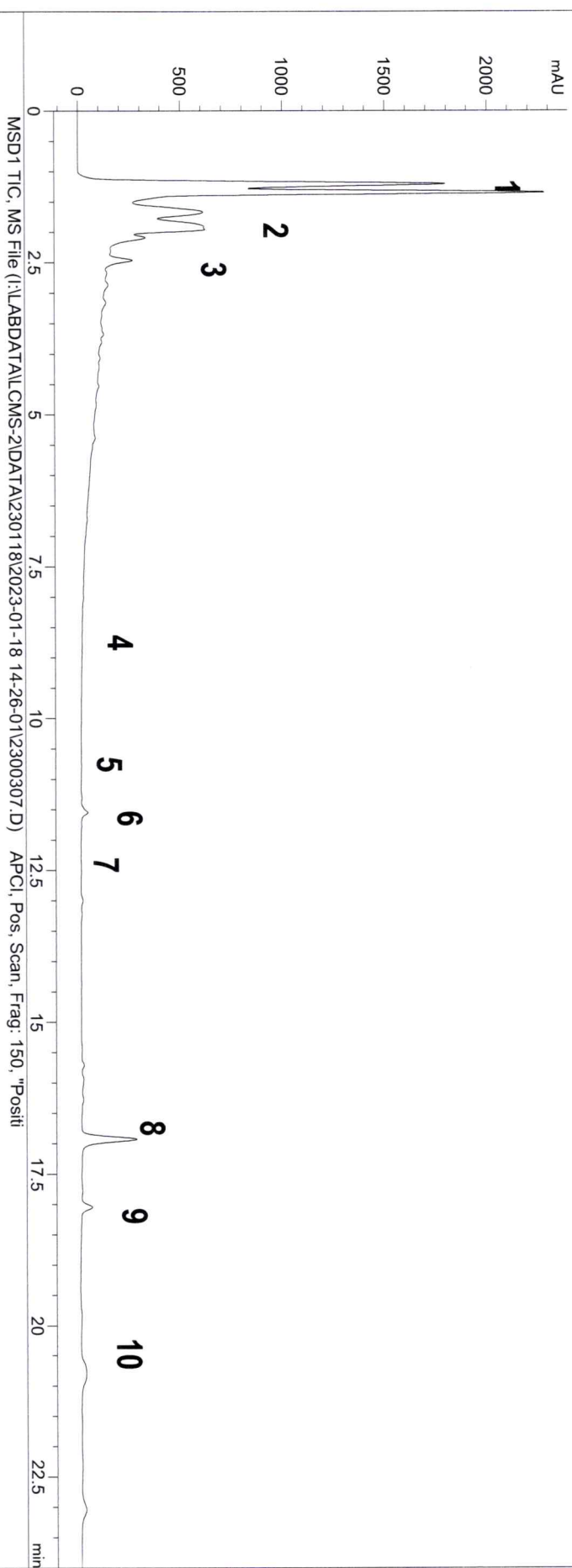
The HPLC-MS profile of the test sample is given above with some major components from the plant extracts indicated. The peaks identified appear to be primarily a range of amine derivatives including amino acids, nucleotides and lipophilic amine derivatives including fungal cerebrosides. Due to the lack of characteristic UV-Vis spectra and published reports for *Grifola frondosa* the amine derivatives eluting from 8 to 13 minutes were not able to clearly identified. Steroidal triterpene derivatives have been reported and were tentatively identified peaks #8 and #9. Spectral data in support of peak identification is attached.

*JS-RL*

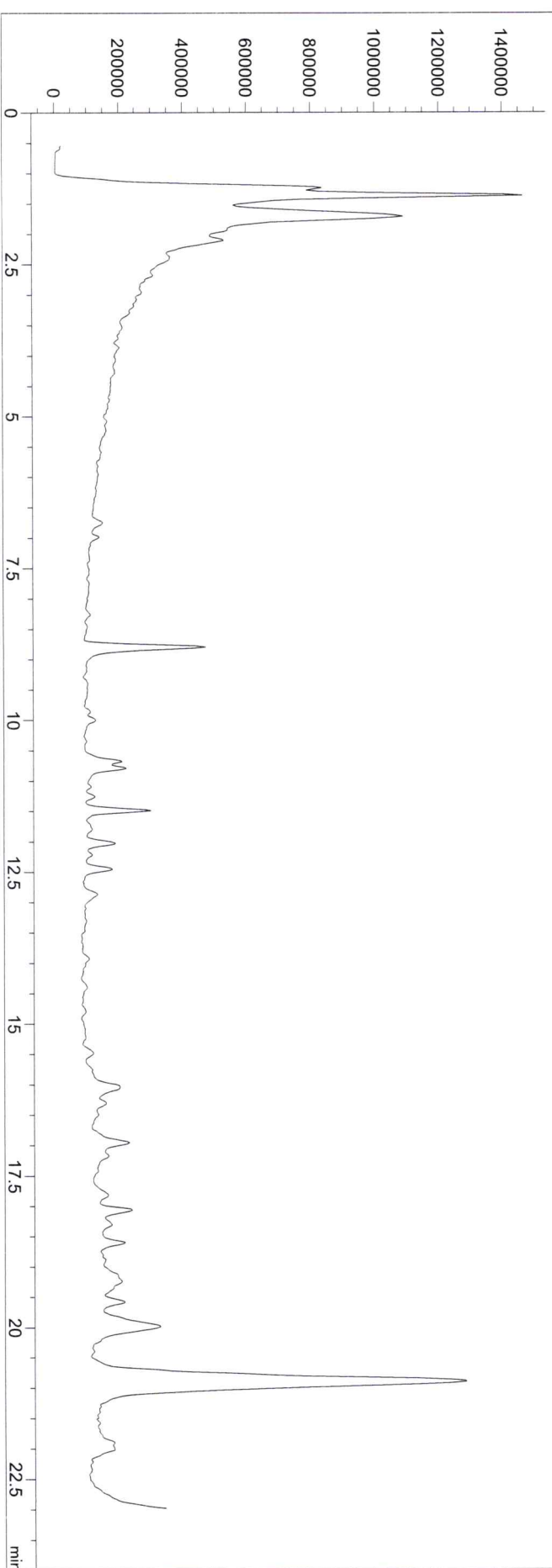
**QC AUTHORISED**

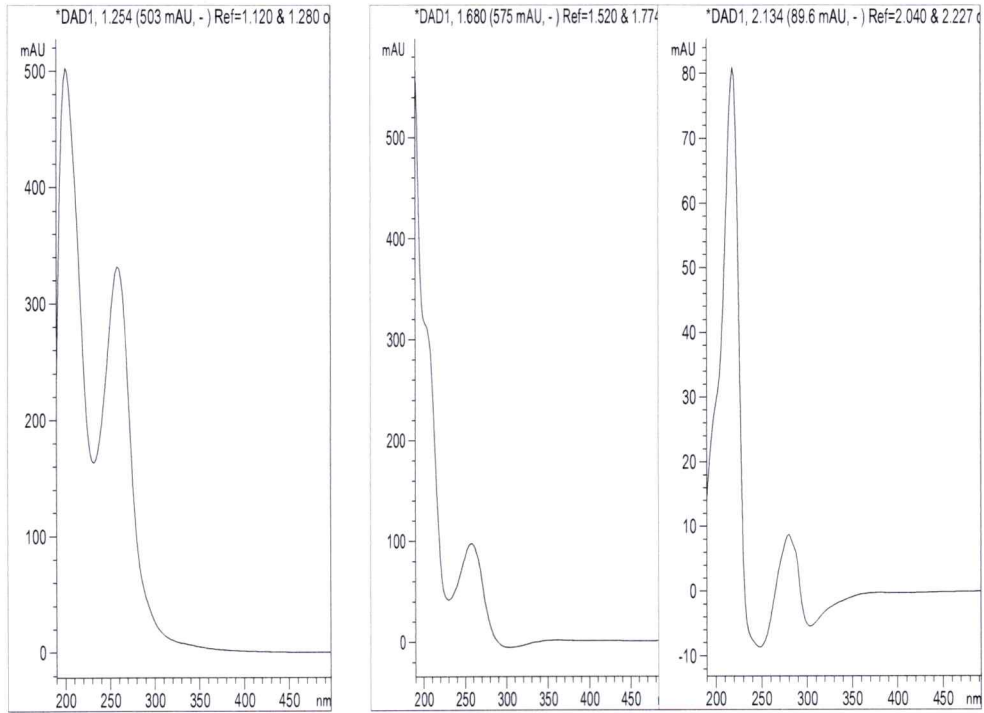
Current Chromatogram(s)

DAD1 A, Sig=210,4 Ref=off (I:\LABDATA\LCMS-2\DATA\230118\2023-01-18 14-26-01\2300307.D)

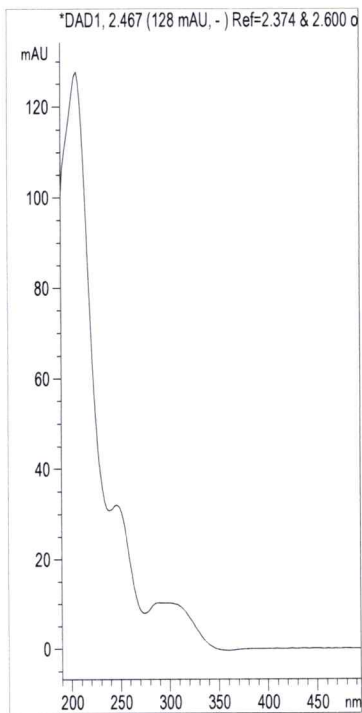


MSD1 TIC, MS File (I:\LABDATA\LCMS-2\DATA\230118\2023-01-18 14-26-01\2300307.D) APCI, Pos, Scan, Frag: 150, "Positi





**Figure 1.** UV-Vis spectra of peaks #1 and #2 identified as nucleotides and amino acid tryptophan based on characteristic UV-Vis and MS spectra



**Figure 2.** UV-Vis spectra of peak #3 identified as likely phenolic derivative based on characteristic spectra