

Certificate of Analysis

L-Theanine

(2S)-2-amino-5-(ethylamino)-5-oxopentanoic acid

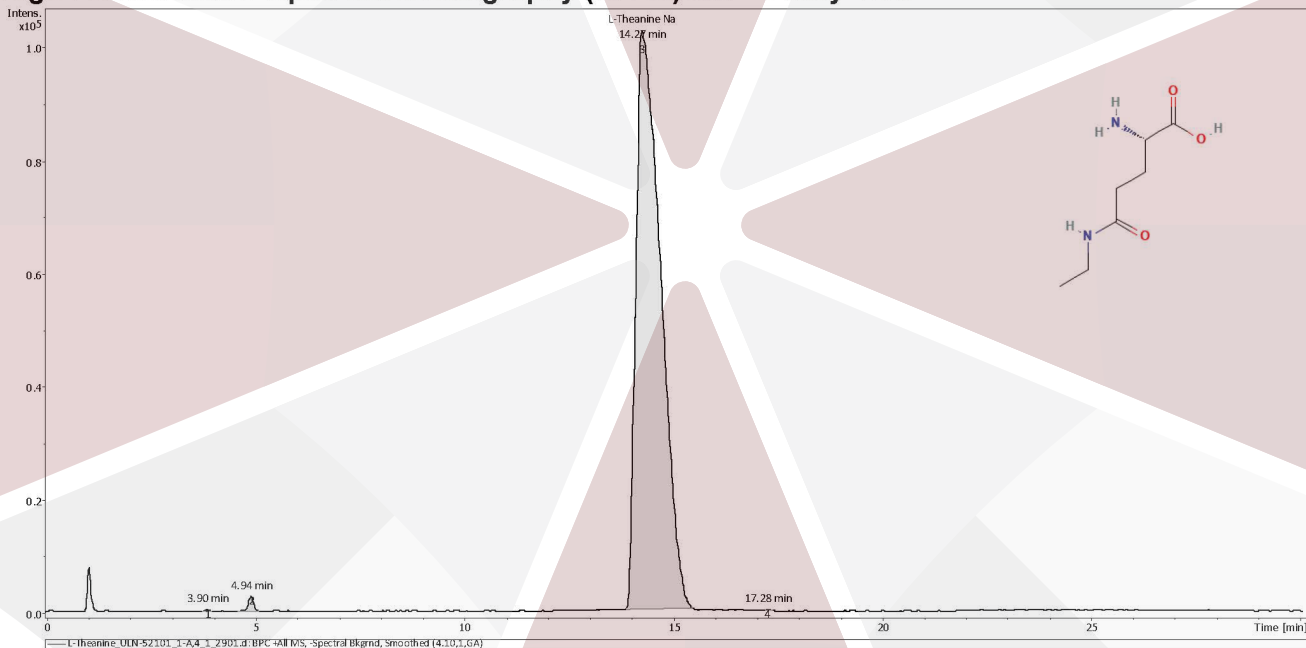
Compound : L-Theanine
Lot number : ULN-52101
Analysis Date : 2024-05-19
Purity % : 99.35%
Method : HPLC-MS

Client : UMBRELLA.us
3280 E Hemisphere Loop
Tucson, Arizona 85706

PubChem CID: 439378

<https://pubchem.ncbi.nlm.nih.gov/compound/439378>

High Performance Liquid Chromatography (HPLC) MS – Purity Test



| PEAK LIST | | | | Number of detected peaks: 4 | |
|-----------|--------------|-----------------|--------------|-----------------------------|--|
| | Time (min) | Area | %Area | | |
| 1 | 3.90 | 2.41E+03 | 0.06 | | |
| 2 | 4.94 | 2.35E+04 | 0.55 | | |
| 3 | 14.27 | 4.22E+06 | 99.35 | L-Theanine | |
| 4 | 17.28 | 1.49E+03 | 0.04 | | |

Analysis Performed by
 Ken Pendarvis, ChE
 Analytical Chemist
 MZ Biolabs
contact@mzbiolabs.com



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Mass Spectrometry (MS) – Identity Test

Identity confirmed using HPLC-MS

Molecular weight calculated using monoisotopic m/z values from mass spectrum

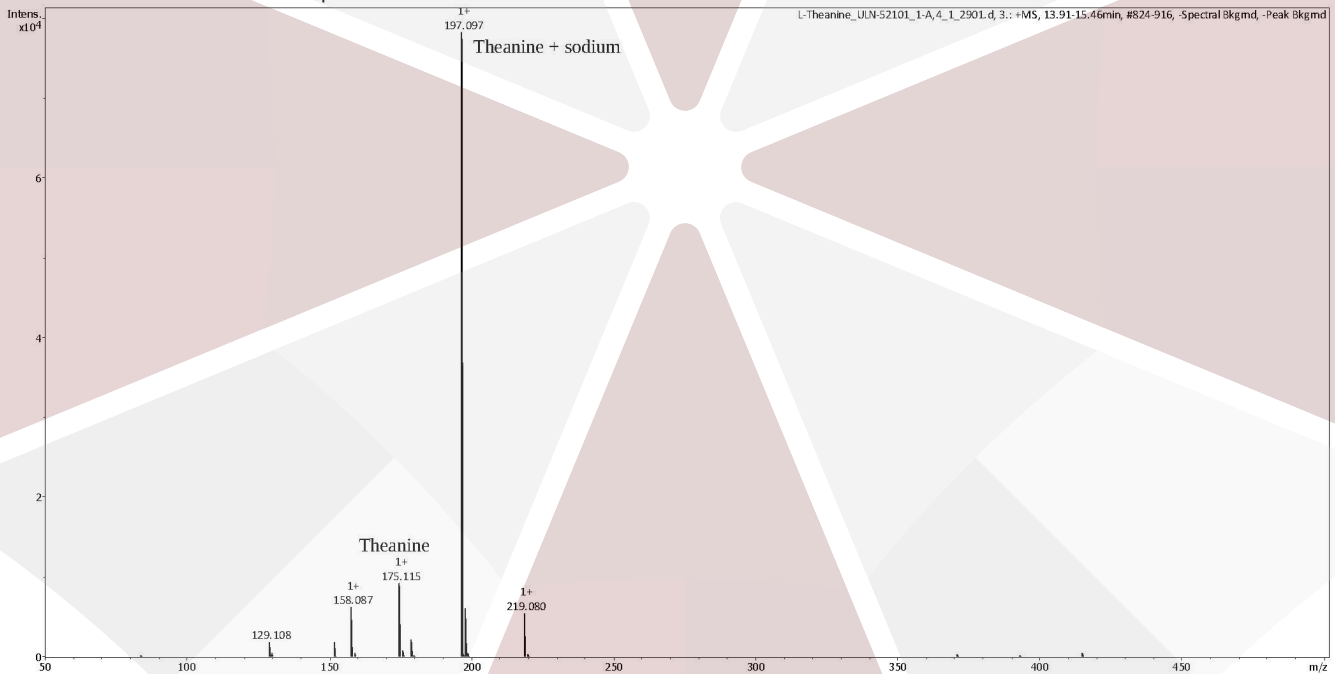
Expected monoisotopic mass : 174.10 Da

Measured monoisotopic mass : 174.12 Da

Molecular weight confirmed

Note : Monoisotopic m/z values are not easily seen in full spectrum view for larger molecules and peptides. The dominant isotopic peak (base peak) shown in the spectrum below can be used to approximate the average molecular weight frequently reported by vendors and databases as a secondary means of confirmation.

Recorded MS spectrum



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