

Certificate of Analysis

Ascorbic acid (Vitamin C)

(2R)-2-[(1S)-1,2-dihydroxyethyl]-3,4-dihydroxy-2H-furan-5-one

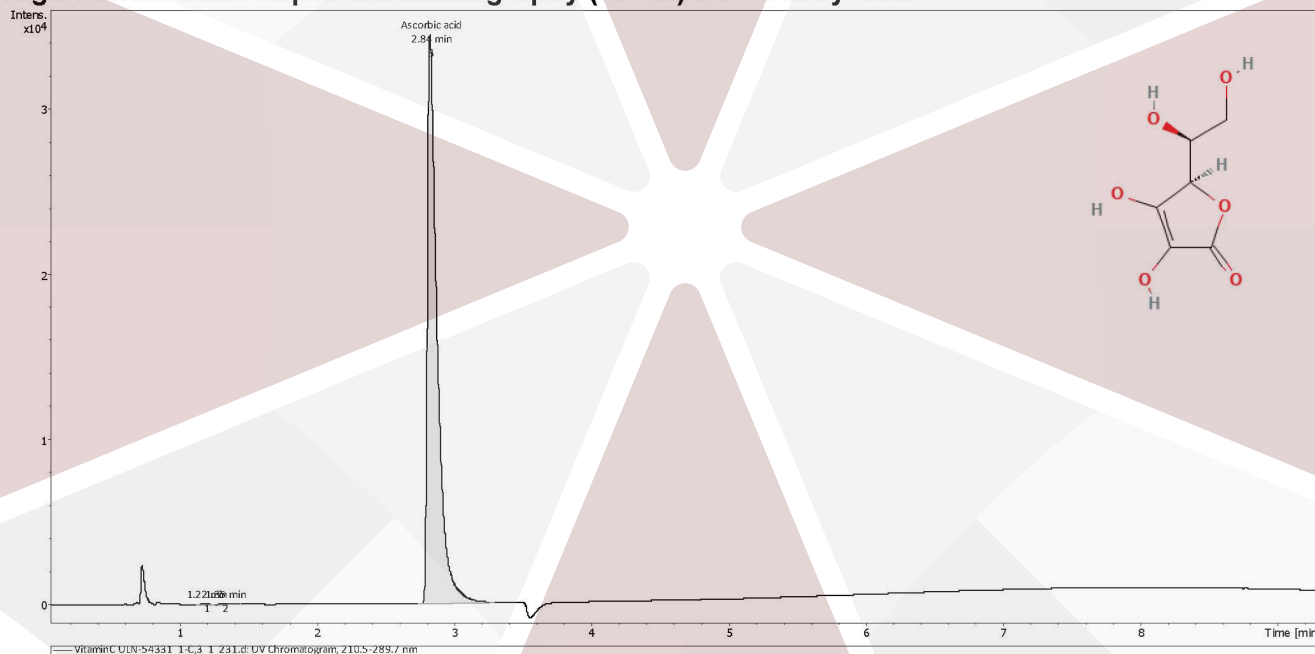
Compound : Ascorbic acid
Lot number : ULN-15800
Analysis date : 2024-11-25
Purity % : 99.80%
Method : HPLC-UV-MS

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

PubChem CID: 54670067

<https://pubchem.ncbi.nlm.nih.gov/compound/54670067>

High Performance Liquid Chromatography (HPLC) UV – Purity Test



PEAK LIST			
Number of detected peaks: 3			
	Time (min)	Area	%Area
1	1.22	7.93E+01	0.05
2	1.35	2.57E+02	0.15
3	2.84	1.68E+05	99.80

Ascorbic acid

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



2024-11-26

Note: Injectable peptides may contain salts and sugars to aid in solubility and act as pH buffers.
These are not normally detected using UV and are not considered impurities.

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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 : 176.03 Da

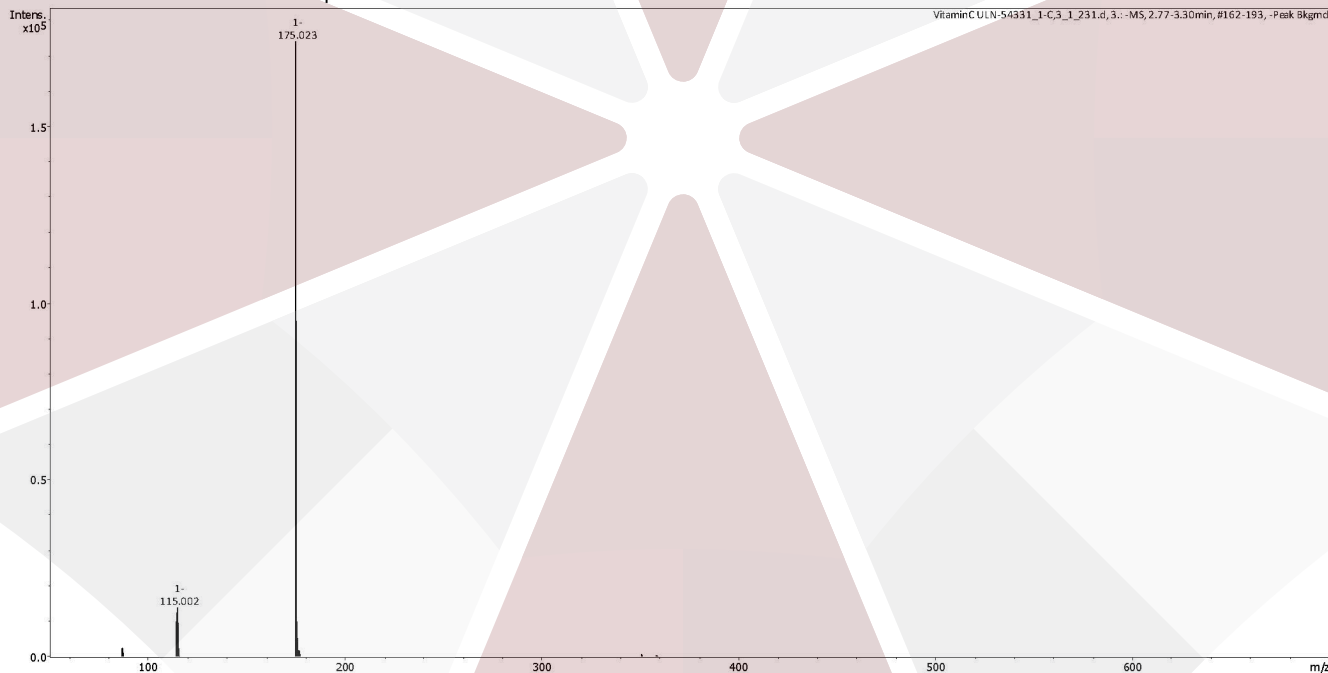
Measured monoisotopic mass : 176.02 Da

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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