



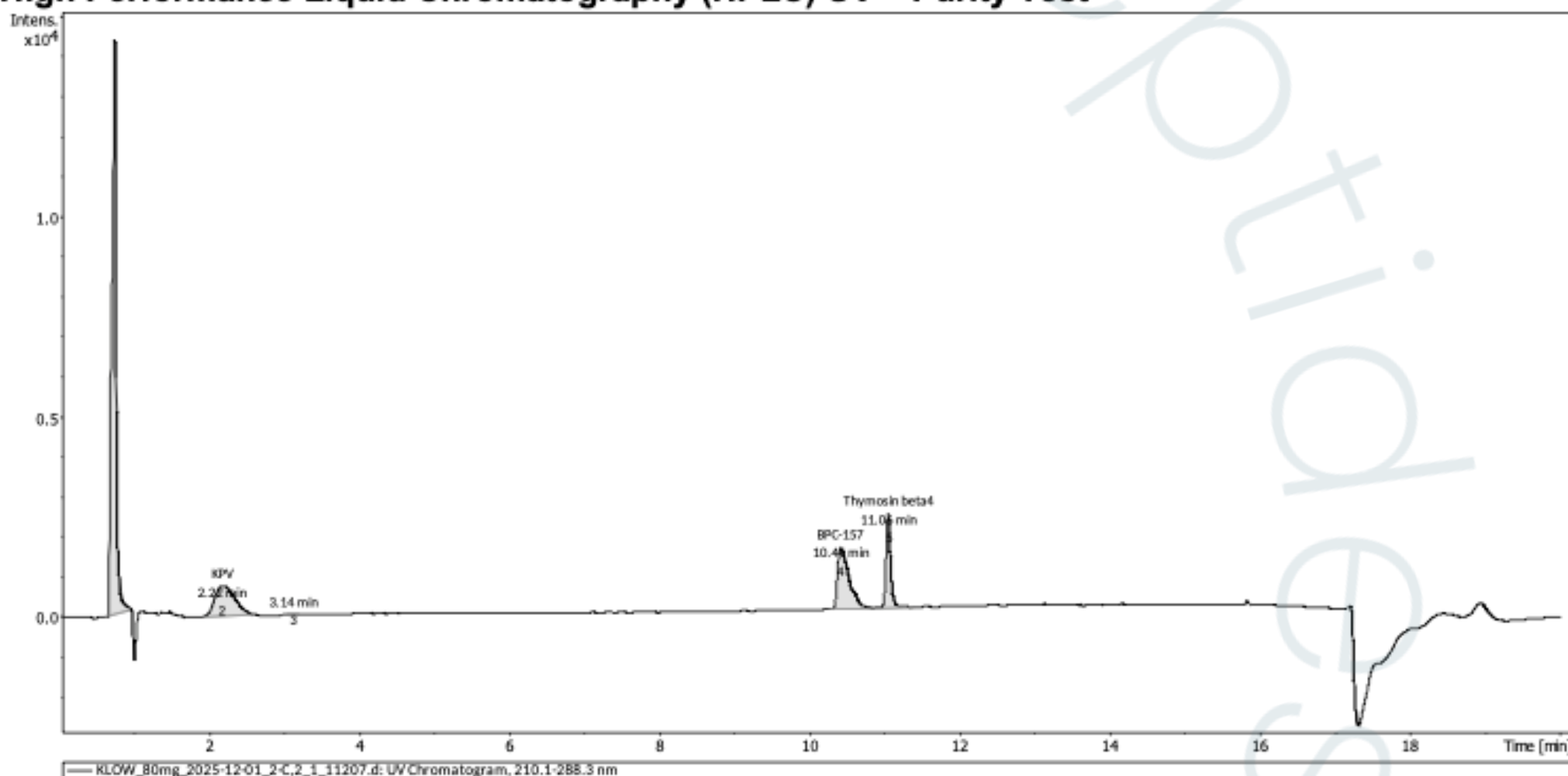
Certificate of Analysis

GHK-Cu, BPC-157, Thymosin beta4, KPV

Compounds : KPV, GHK-CU
BPC-157, Thymosin beta4
Lot number : 2025-12-01
Analysis date : 2025-12-12
Purity % : 99.89%
Method : HPLC-UV-MS

Client : Tides Peptides
www.tidespeptides.com

High Performance Liquid Chromatography (HPLC) UV – Purity Test



PEAK LIST

	Time (min)	Area	%Area	
1	0.79	5.68E+04	58.38	GHK-Cu
2	2.22	1.42E+04	14.58	KPV
3	3.14	1.03E+02	0.11	
4	10.44	1.61E+04	16.60	BPC-157
5	11.06	1.00E+04	10.33	Thymosin beta4

Overall Purity : 99.89



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

K. Pendarvis
2025-12-19

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

GHK-Cu PubChem CID: 71587328

<https://pubchem.ncbi.nlm.nih.gov/compound/71587328>

Expected monoisotopic mass : 402.10 Da

Measured monoisotopic mass : 402.11 Da

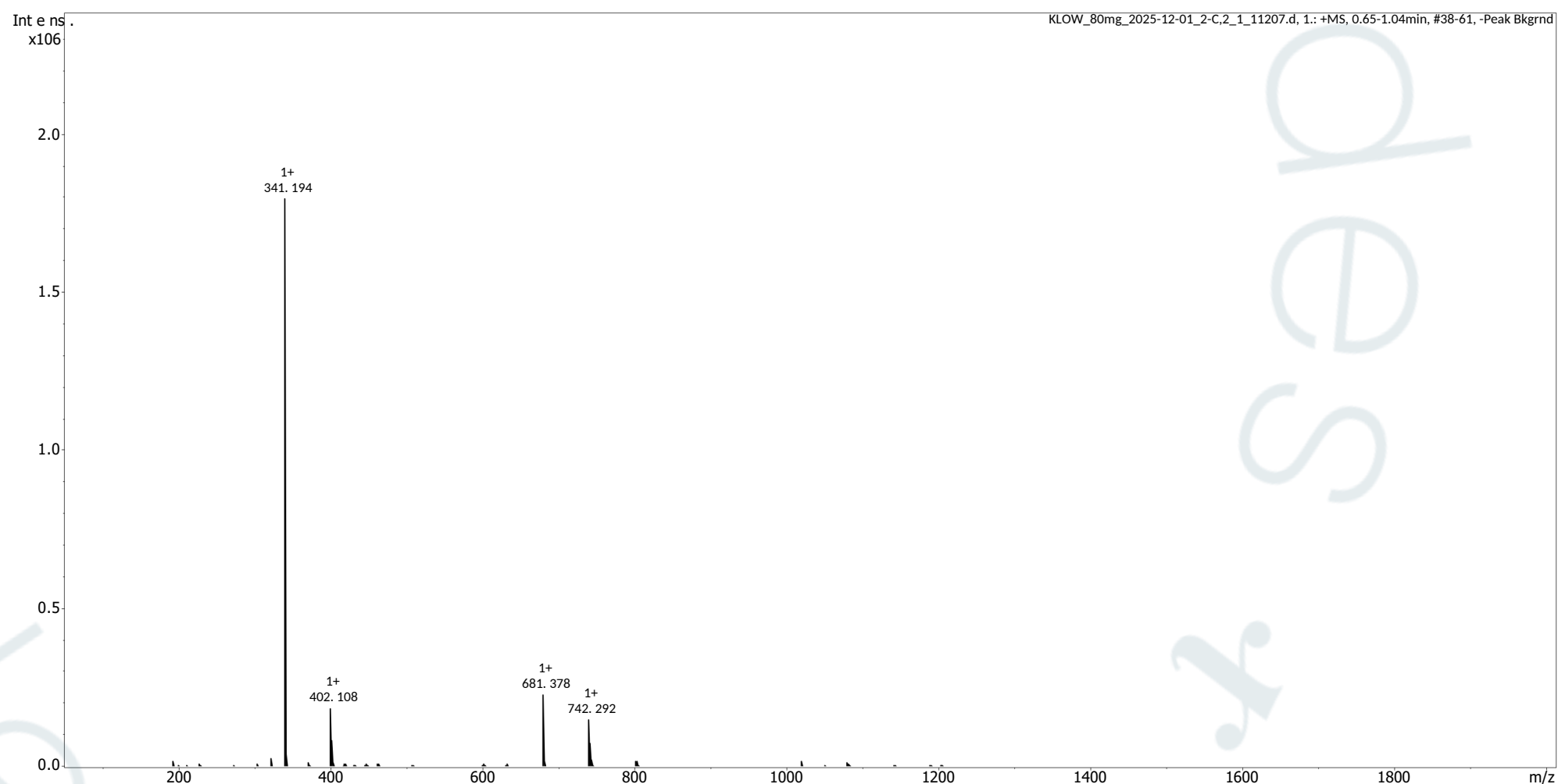
Molecular weight confirmed

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

GHK-Cu



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Mass Spectrometry (MS)–IdentityTest

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

BPC-157 PubChem CID: 9941957

<https://pubchem.ncbi.nlm.nih.gov/compound/9941957>

Expected monoisotopic mass : 1418.70 Da

Measured monoisotopic mass : 1418.72 Da

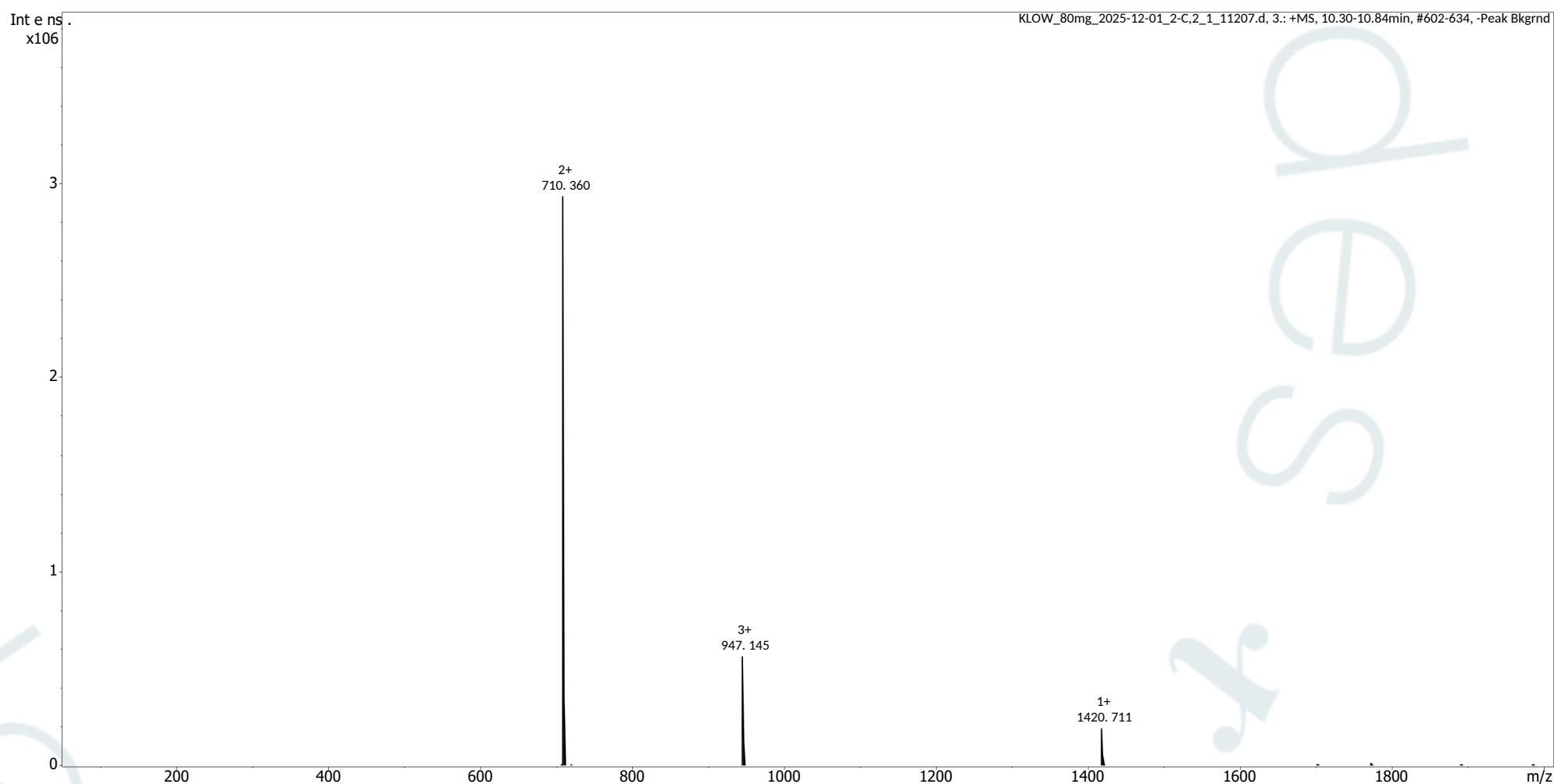
Molecular weight confirmed

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Recorded MS spectrum

BPC-157



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Mass Spectrometry (MS)–IdentityTest

Identityconfirmed using HPLC-MS

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

Thymosin beta4 PubChem CID: 16132341

<https://pubchem.ncbi.nlm.nih.gov/compound/16132341>

Expected monoisotopic mass : 4960.48 Da

Measured monoisotopic mass : 4960.52 Da

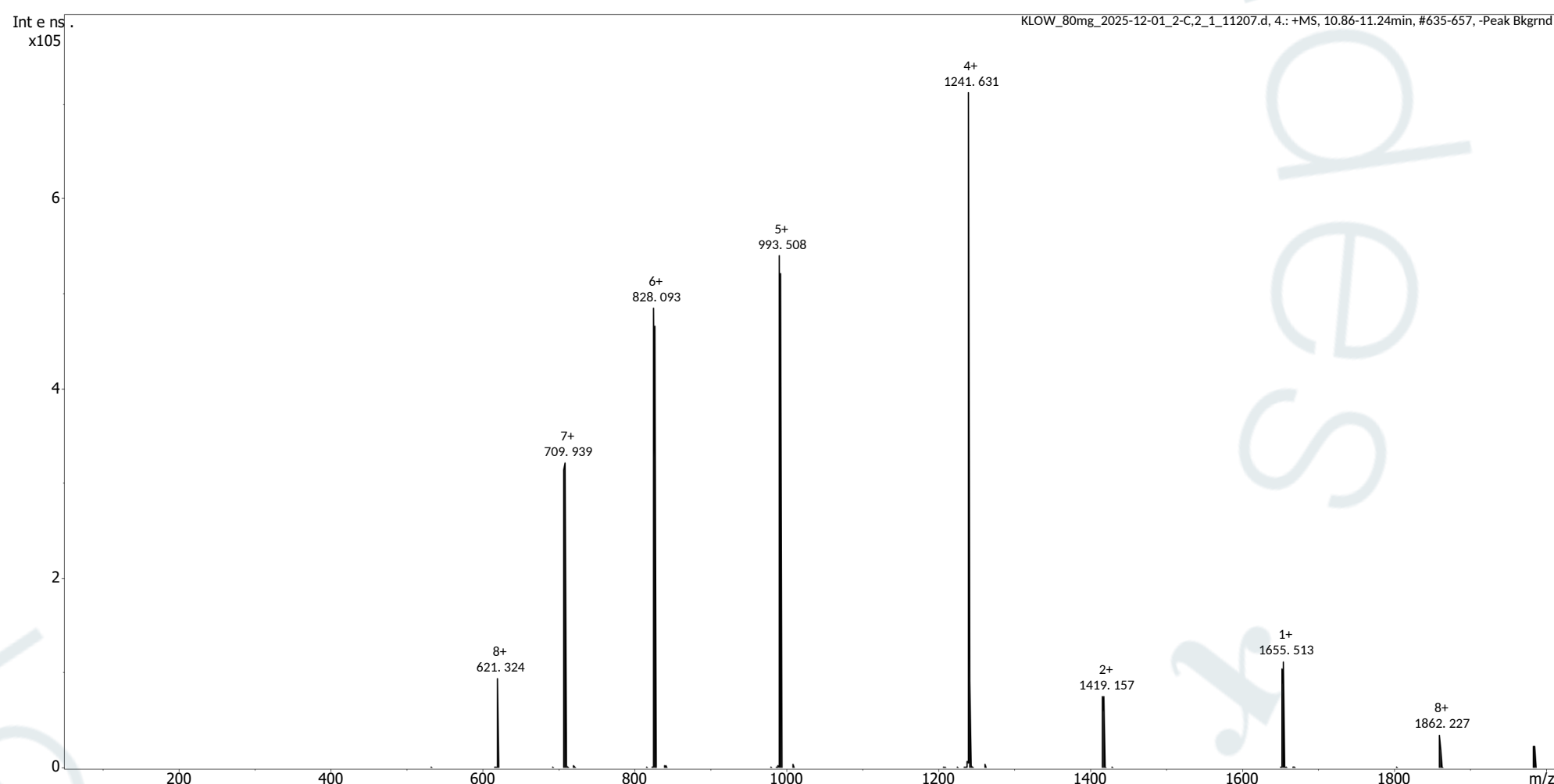
Molecular weight confirmed

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Recorded MS spectrum

Thymosin beta4



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MZ Biolabs
contact@mzbiolabs.com



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GHK-Cu, BPC-157, Thymosin beta4, KPV

Mass Spectrometry (MS)–IdentityTest

Identityconfirmed usingHPLC-MS

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

KPVPubChemCID : 125672

<https://pubchem.ncbi.nlm.nih.gov/compound/125672>

Expected monoisotopic mass : 342.23 Da

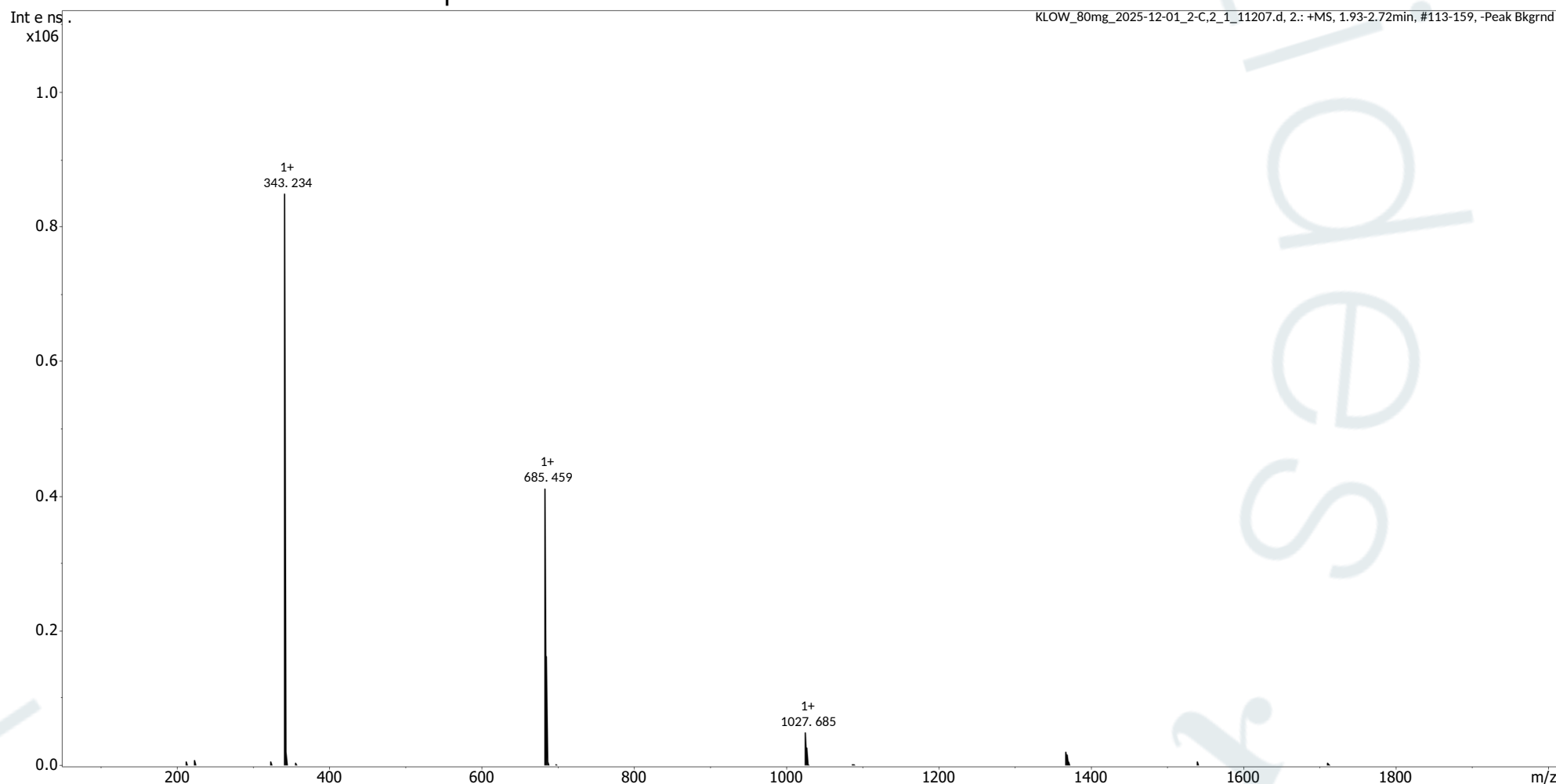
Measured monoisotopic mass : 342.23 Da

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.

KPV Recorded MS spectrum



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