MZ Biolabs
1635 E 18th St
Tucson, AZ 85719
contact@mzbiolabs.com
www.mzbiolabs.com

Certificate of Analysis

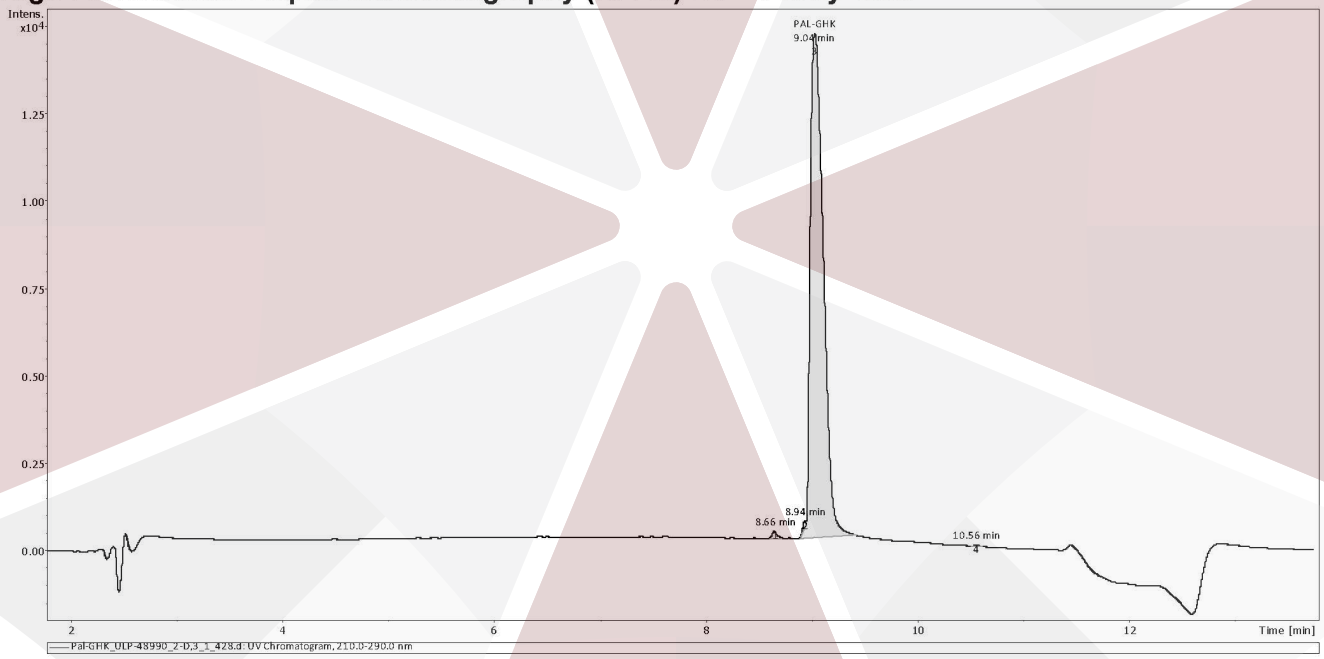
PAL-GHK

Pal-Gly-His-Lys-OH

Compound	: **PAL-GHK**	**Client :**	**UMBRELLA.us**
Lot number	: **ULP-48990**		**3280 E Hemisphere Loop**
Analysis date	: **2024-12-06**		**Tucson, Arizona 85706**
Purity %	: **99.15%**		
Method	: **HPLC-UV-MS**		

PubChem CID: 10231864
https://pubchem.ncbi.nlm.nih.gov/compound/10231864

High Performance Liquid Chromatography (HPLC) UV – Purity Test



PEAK LIST — Number of detected peaks: 4

	Time (min)	Area	%Area	
1	8.66	5.89E+02	0.46	
2	8.94	3.69E+02	0.29	
3	**9.04**	**1.26E+05**	**99.15**	**PAL-GHK**
4	10.56	1.22E+02	0.10	

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

2024-12-10

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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PAL-GHK

Pal-Gly-His-Lys-OH

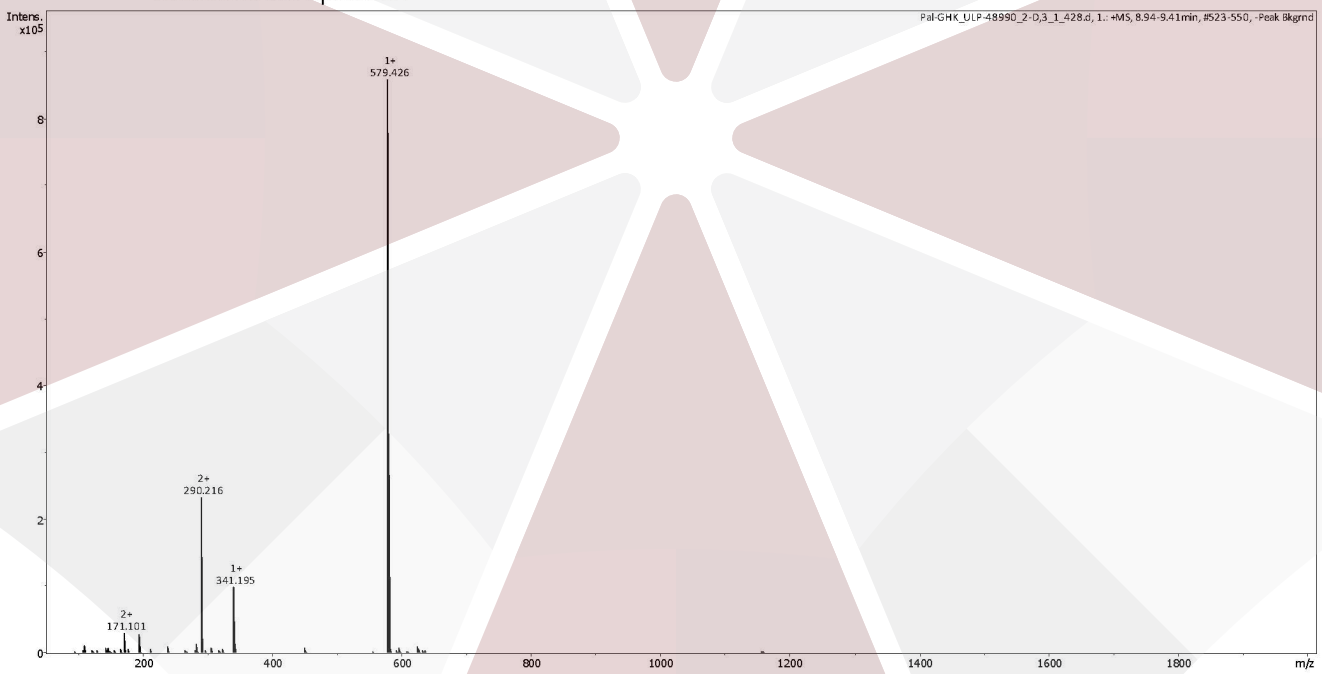
PubChem CID: 10231864
https://pubchem.ncbi.nlm.nih.gov/compound/10231864

Mass Spectrometry (MS) – Identity Test

Identity confirmed using HPLC-MS
Molecular weight calculated using monoisotopic m/z values from mass spectrum
Expected monoisotopic mass : 578.42 Da
Measured monoisotopic mass : 578.43 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



Analysis Performed by
Ken Pendarvis, ChE
Analytical Chemist
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2024-12-10