

Certificate of Analysis

MOTS-C 10mg

Met-Arg-Trp-Gln-Glu-Met-Gly-Tyr-Ile-Phe-Tyr-Pro-Arg-Lys-Leu-Arg

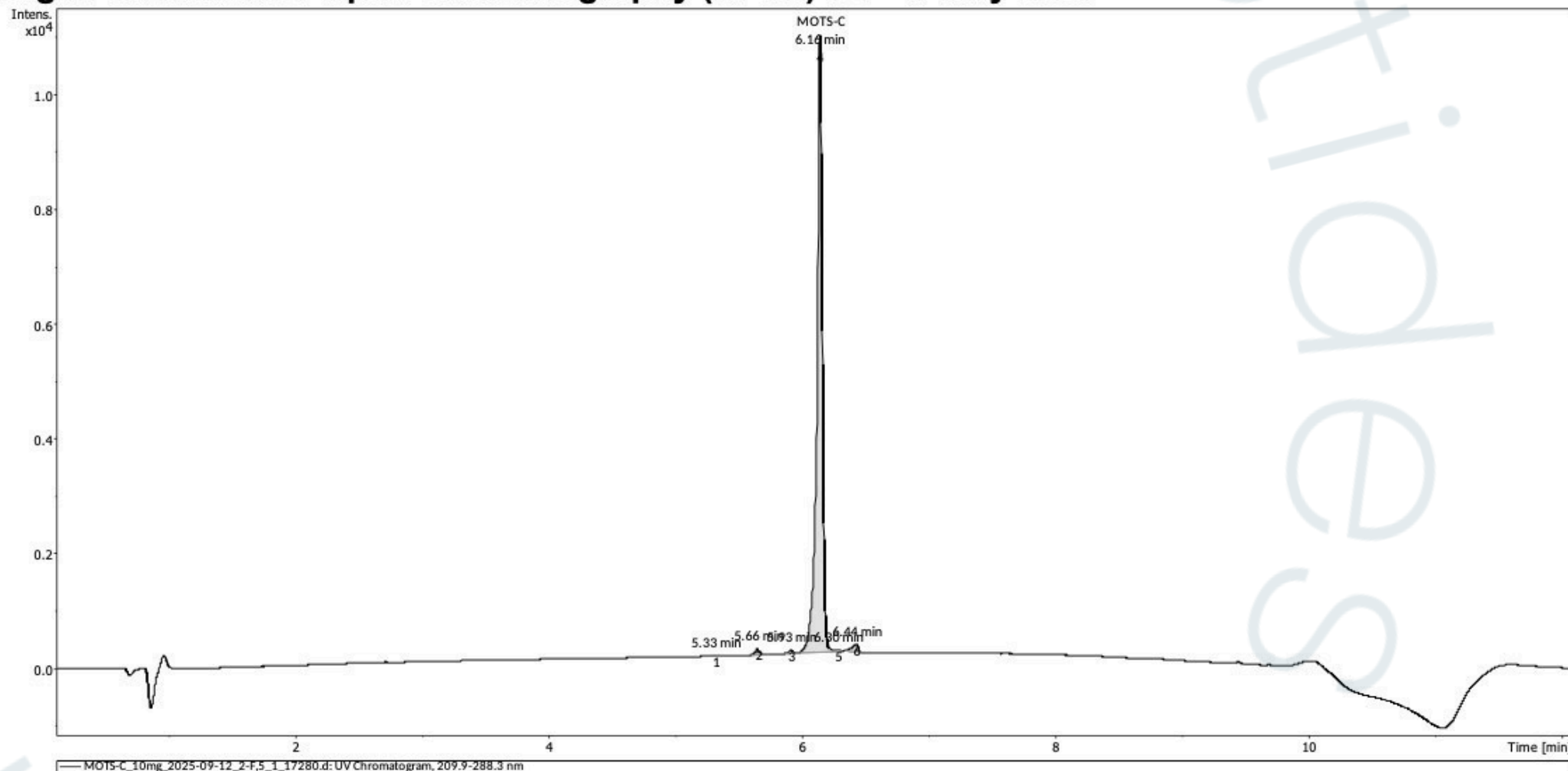
Compound : MOTS-C
Lot number : 2025-09-12
Analysis date : 2025-09-22
Purity % : 97.14%
Method : HPLC-UV-MS

Client : Tides Peptides
www.tidespeptides.com

PubChem CID: 146675088

<https://pubchem.ncbi.nlm.nih.gov/compound/146675088>

High Performance Liquid Chromatography (HPLC) UV – Purity Test



PEAK LIST				Number of detected peaks: 6	
	Time (min)	Area	%Area		
1	5.33	1.55E+01	0.05		
2	5.66	2.43E+02	0.75		
3	5.93	1.56E+02	0.48		
4	6.16	3.17E+04	97.14	MOTS-C	
5	6.30	3.28E+01	0.10		
6	6.44	4.85E+02	1.49		



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



2025-09-29

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 : 2173.11 Da

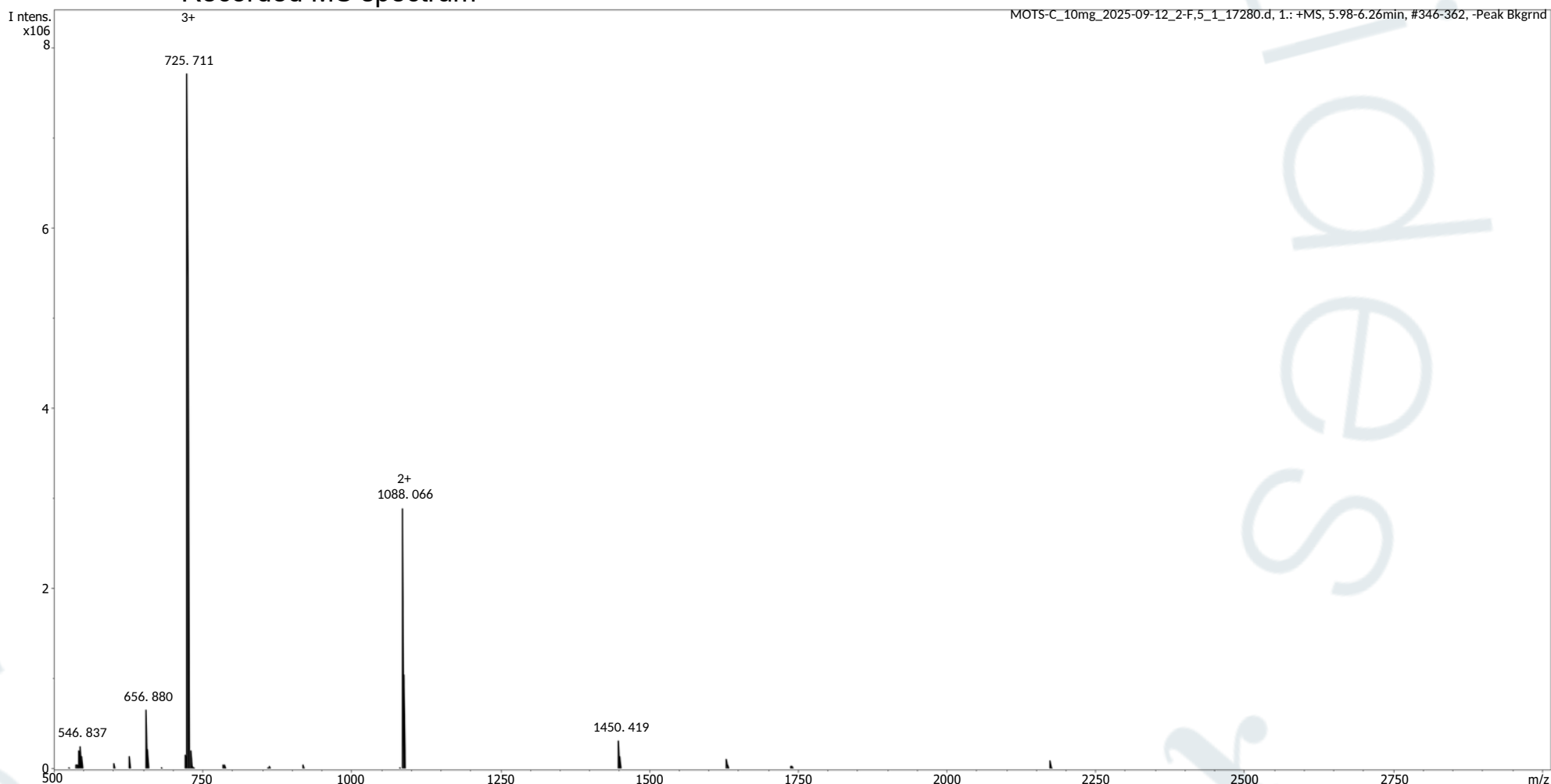
Measured monoisotopic mass : 2173.13 Da

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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CERTIFICATE OF ANALYSIS

Product Name	MOTS-C	CAS NO.	1627580-64-6
Batch NO.	NCMOT250625	Molecular formula	C101H152N28O22S2
Manufacture Date	June 25, 2025	Molecular weight	2174.64
Sequence	H-Met-Arg-Trp-Gln-Glu-Met-Gly-Tyr-Ile-Phe-Tyr- Pro-Arg-Lys-Leu-Arg-OH		

TEST	SPECIFICATION	RESULTS
Appearance	White or off-white powder	Conforms
Identity by HPLC	The retention time of the main principal of the test Solution corresponds to that of the reference Solution, as obtained in the assay	Conforms
MS	Consistent	Consistent
Purity(HPLC)	≥ 98%	99.38%
Peptide Assay	80.0%~120.0%	94.9%
Solubility	Soluble in water	Conforms
TFA	≤ 0.5%	Not detected
Sodium ion	≤ 3.0%	2.0%
Conclusion	This product conforms to the Enterprise Standard.	

Note: this product is intended for research use only

Important: Stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated.