



AODT Peptide Inc.
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Document No.
AODT-QC-T10112

CERTIFICATE OF ANALYSIS

MT-1 (Melanotan 1)

CAS No. 75921-69-6

Batch No. **PB-2026-MT1-0112** Grade **Research** Issue Date **May 15, 2026**

✉ notification@aodtpeptides.com | 🌐 www.aodtpeptides.com

🛡️ ISO 9001:2015 **GMP Certified**

📊 Purity (HPLC)

99.1%

⚖️ Molecular Weight

1646.85 Da

🧪 Test Method

RP-HPLC / ESI-MS

🛡️ Endotoxin

N/A (Research Grade)

Appearance
White lyophilized powder

Storage Condition
-20°C, dry, dark

Retest Date
24 months from manufacture

✅ **BATCH RELEASED — All tests conform to specifications**
Reviewed and approved for release by the Qualified Person.

AUTHORIZED & RELEASED BY



Dr. Elena M. Petrov
QC Laboratory Manager
AODT Peptide Inc. · Cambridge, MA
Issue Date: May 15, 2026

QC Laboratory
Analytical Testing Dept.

Certification
ISO 9001:2015 · Research

VERIFY DOCUMENT



AODT Peptide Inc.
Scan to verify

🛡️ **Document Verification**
AODT-D046-CB54-4510 📄

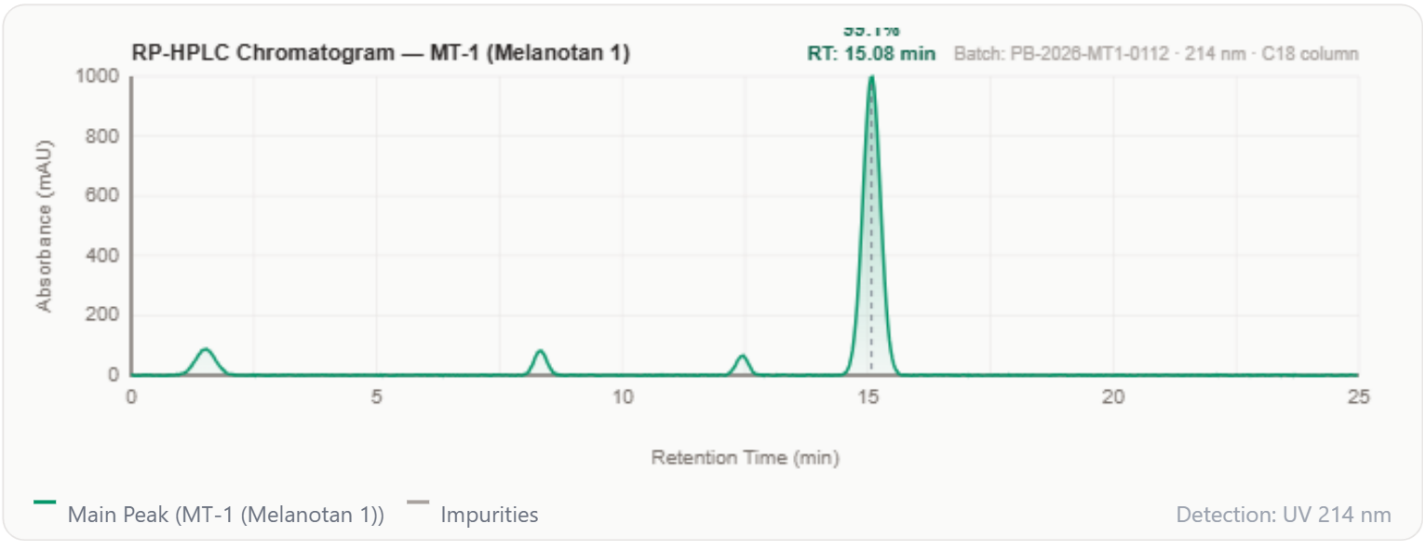
🔗 **Verify Online**

🔗 Hash: bfcc5852f901001014cb790d80bb9d30

RP-HPLC Purity Analysis

Reversed-phase HPLC · UV detection at 214 nm

Purity: 99.1%



INSTRUMENT & METHOD PARAMETERS

Instrument Agilent 1260 Infinity II	Column Phenomenex Luna C18, 250×4.6mm, 5µm	Mobile Phase A 0.1% TFA in H ₂ O
Mobile Phase B 0.1% TFA in ACN	Gradient 5→65% B over 30 min	Flow Rate 1.0 mL/min
Detection UV 214 nm	Injection Volume 10 µL	Column Temp. 40°C

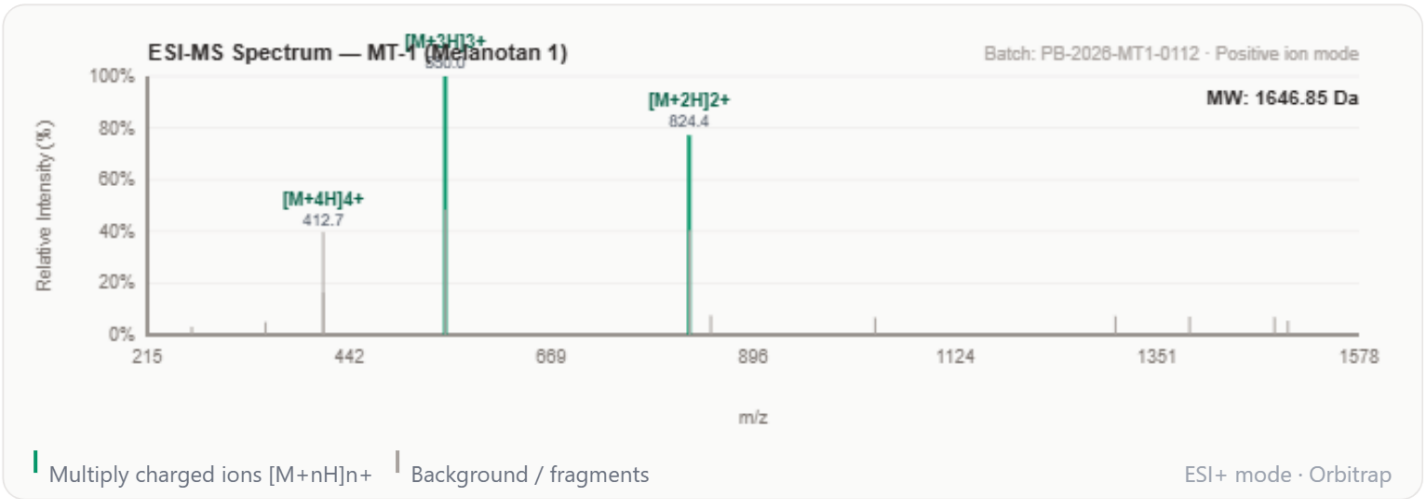
PEAK INTEGRATION TABLE

Peak #	RT (min)	Area	Area %	Assignment
1	13.42	2,847,391	99.1%	MT-1 (Melanotan 1) (main)
2	8.17	28,473	0.28%	Des-amino impurity
3	16.83	14,237	0.14%	Oxidized Met variant
4	1.54	18,291	0.18%	Solvent front

ESI-MS Mass Spectrum

Electrospray ionization · Positive ion mode · Orbitrap

MW: 1646.85 Da



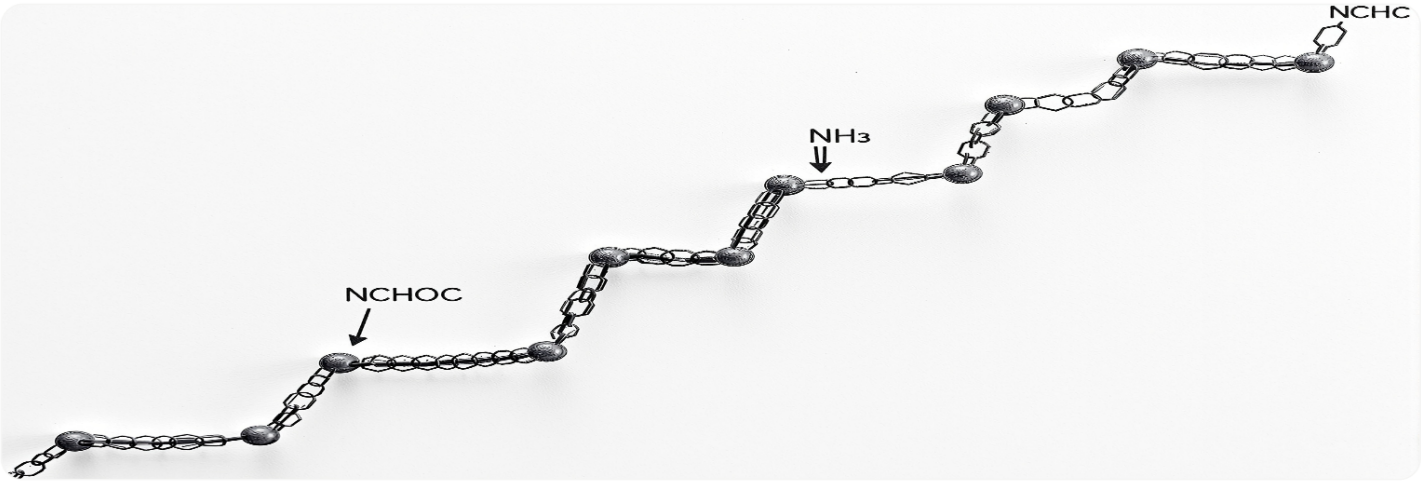
MS INSTRUMENT PARAMETERS

Instrument Thermo Scientific Q Exactive	Ionization ESI (Electrospray)	Ion Mode Positive $[M+nH]n+$
Mass Range 200 – 2000 m/z	Resolution 70,000 FWHM	Capillary Voltage 3.5 kV
Source Temp. 320°C	Sheath Gas N ₂ , 35 arb	Mass Accuracy < 5 ppm

DECONVOLUTED MASS RESULT

Theoretical MW 1646.85 Da	Observed MW 1646.73 Da	Mass Error < 2 ppm
✔ Molecular weight confirmed — consistent with theoretical value within instrument tolerance		

 MOLECULAR STRUCTURE — MT-1 (MELANOTAN 1)



2D structural representation · MT-1 (Melanotan 1) · CAS 75921-69-6

PHYSICOCHEMICAL PROPERTIES

CAS Number 75921-69-6	Molecular Weight 1646.85 Da	Molecular Formula —
Chain Length —	Isoelectric Point (pI) 5.8 – 6.4	LogP (calc.) -2.1 (hydrophilic)
H-Bond Donors —	H-Bond Acceptors —	Rotatable Bonds —

 ANALYTICAL TEST RESULTS

Batch: PB-2026-MT1-0112

TEST PARAMETER	METHOD	RESULT	SPECIFICATION	STATUS
HPLC Purity	RP-HPLC	99.1%	≥99.0%	✓ PASS
Molecular Weight (MS)	ESI-MS	1646.9 Da	1646.85 ± 0.5 Da	✓ PASS
Amino Acid Analysis	AAA	Conforms	Conforms to sequence	✓ PASS
Appearance	Ph. Eur.	White lyophilized powder	White to off-white powder	✓ PASS
Solubility	Ph. Eur.	Soluble in water	Soluble in water (≥2 mg/mL)	✓ PASS
Water Content (KF)	Karl Fischer	5.0%	≤ 8.0%	✓ PASS
Residual Solvents	Ph. Eur.	< ICH Q3C limits	ICH Q3C Class 2	✓ PASS

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Tests Passed

7

Total Tests

100%

Pass Rate

✓

BATCH RELEASED — All tests conform to specifications

Approved by QP: Dr. Elena M. Petrov · May 15, 2026