TEST REPORT

E-mail: lin@peptideformulationlab.com
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Task Number #572413

Testing ordered > 03 Jun '26

Sample received > 08 Jun '26

Client	ShiLai™ Peptide Technologies
Sample	Melanotan II (10 mg)
Manufacturer	ShiLai™ Peptide Technologies
Batch	AR1636RT2

Sample description >

See picture or pictures attached.

Tests requested >

Assessment of a peptide cartridges.

Results >

Melanotan II	10.93mg
Assay (HPLC)	100.0%
Identity (MS)	Confirmed
Purity	99.82%
Related Impurities	≤0.8%
pH	5.8 ± 0.2
Endotoxin	<0.5 EU/mg
Sterility	Pass

Analysis conducted > 10 Sep 2026

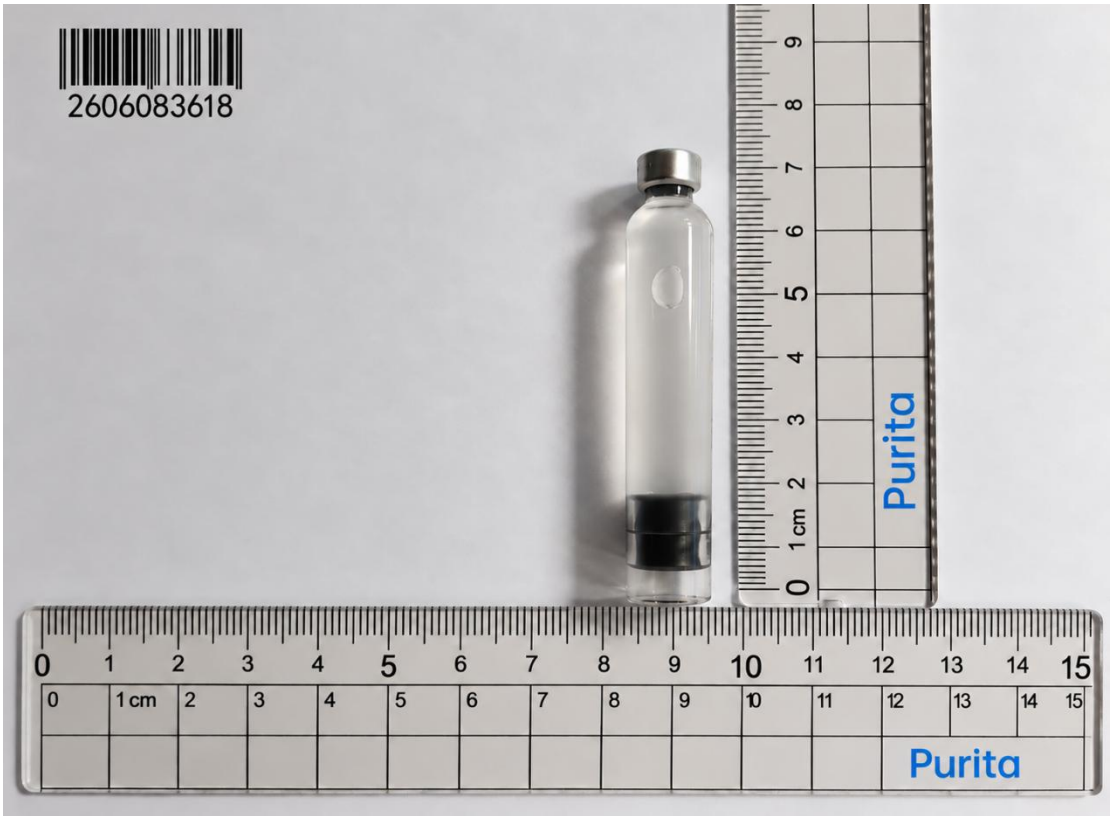
Signature >

Go to the website peptideformulationlab.com and contact the relevant person in charge to verify this test document.

32YC847201VN9

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The photo of sample：



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Melanotan II Injection Pen (illustrative laboratory data) - Stability by HPLC (10mg)

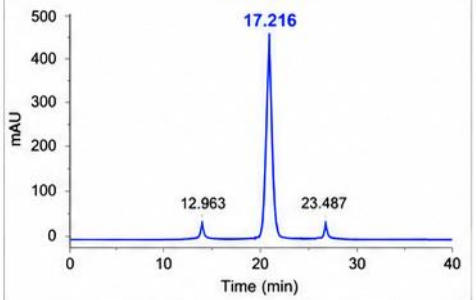
Product Name	:	Melanotan II Injection Pen (illustrative laboratory data) - (10mg)	**Sample Conc.**	:	3.333 mg/mL
Batch No.	:	AR1636RT2	**System**	:	Agilent 1260 Infinity II
Strength	:	10 mg / Pen	**Software**	:	OpenLAB CDS
Diluent	:	Bacteriostatic Water for Injection	**Run Time**	:	40 min
Column	:	Waters Xbridge BEH C18, 4.6 × 150 mm, 3.5 µm	**Wavelength**	:	220 nm
Mobile Phase	:	A: 0.1% TFA in Water B: 0.1% TFA in Acetonitrile	**Data Rate**	:	10 Hz
			Study Condition	:	Reconstituted and stored at 2–8 °C
Gradient	:	5% B to 60% B in 30 min	**Evaluation**	:	Area Normalization
Flow Rate	:	1.0 mL/min	**Report Date**	:	2026-09-10
Column Temp	:	30 °C			
Detection	:	UV 220 nm			
Injection Vol.	:	10 µL			

SUMMARY OF RESULTS (2–8 °C)

Time Point	Assay (%)	Purity (%)	Total Impurities (%)	pH
Day 0	100.0	99.82	0.18	7.21
Day 30	99.9	99.78	0.22	7.19
Day 60	99.8	99.65	0.35	7.18
Day 90	99.6	99.53	0.47	7.16

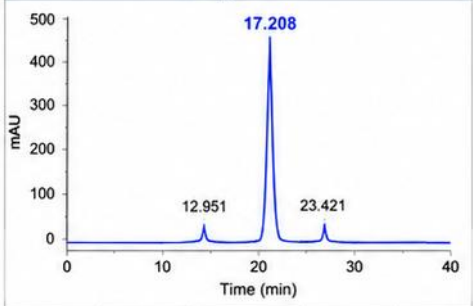
HPLC CHROMATOGRAMS (UV 220 nm)

Day 0 (Initial)



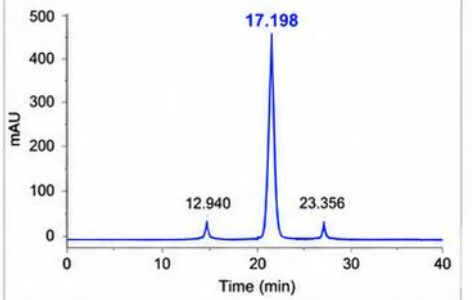
Peak No.	Retention Time (min)	Peak Name	Area (mAU•s)	Area (%)
1	12.963	Impurity 1	8,562	0.09
2	17.216	Melanotan II	9,860,345	99.82
3	23.487	Impurity 2	8,981	0.09
Total			9,877,888	100.00

Day 30



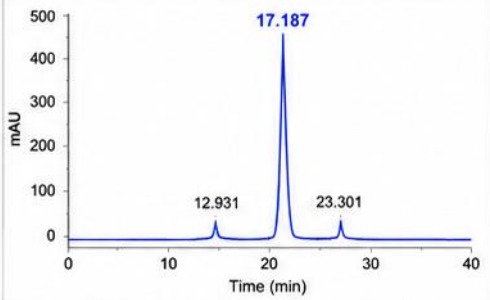
Peak No.	Retention Time (min)	Peak Name	Area (mAU•s)	Area (%)
1	12.951	Impurity 1	10,324	0.11
2	17.208	Melanotan II	9,452,781	99.78
3	23.421	Impurity 2	10,413	0.11
Total			9,473,518	100.00

Day 60



Peak No.	Retention Time (min)	Peak Name	Area (mAU•s)	Area (%)
1	12.940	Impurity 1	16,742	0.18
2	17.198	Melanotan II	9,212,634	99.65
3	23.356	Impurity 2	15,728	0.17
Total			9,245,104	100.00

Day 90

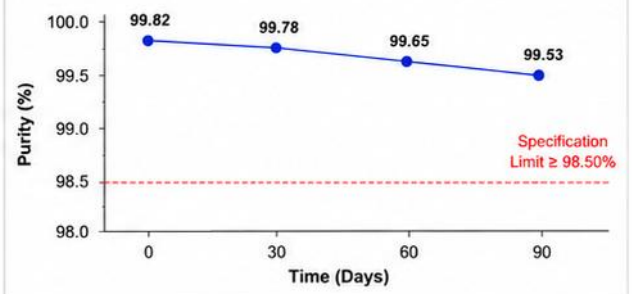


Peak No.	Retention Time (min)	Peak Name	Area (mAU•s)	Area (%)
1	12.931	Impurity 1	21,354	0.24
2	17.187	Melanotan II	8,756,892	99.53
3	23.301	Impurity 2	19,876	0.23
Total			8,798,122	100.00

STABILITY DATA (2–8 °C)

Time Point	Assay (%)	Purity (%)	Total Impurities (%)	pH	Appearance
Day 0 (Initial)	100.0	99.82	0.18	7.21	Clear, Colorless
Day 30	99.9	99.78	0.22	7.19	Clear, Colorless
Day 60	99.8	99.65	0.35	7.18	Clear, Colorless
Day 90	99.6	99.53	0.47	7.16	Clear, Colorless

Purity Trend Over 90 Days (2–8 °C)



SYSTEM SUITABILITY (Day 0)

Parameter	Result	Acceptance Criteria
Retention Time (Melanotan II)	17.216 min	N/A
Theoretical Plates (N)	18,752	≥ 10,000
Tailing Factor (T)	1.06	≤ 2.0
Resolution (Rs, Imp1)	4.71	≥ 1.5
Resolution (Rs, Imp2)	5.36	≥ 1.5

CONCLUSION

Under refrigerated conditions (2–8 °C), the reconstituted Melanotan II Injection Pen maintained excellent chemical stability for 90 days. Purity remained above 99.50%, with minimal increase in total impurities and no significant change in pH or appearance.