

KH

KeruiHk

08/F, Lung Shing Factory Building, 142-148 Texaco Road, Tsuen Wan, NT, Hong Kong

Document No.

KERUIHK-QC-ET8102

CERTIFICATE OF ANALYSIS

Retatrutide

CAS No. 2381272-77-9

Batch No.

PB-2026-RET-8102

Grade

GMP

Issue Date

Aug 23, 2026

✉ support@keruihk.net | 🌐 keruihk.net

🛡️ ISO 9001:2015

GMP Certified

📊 Purity (HPLC)

99.5%

🔍 Molecular Weight

4731.24 Da

🧪 Test Method

RP-HPLC / ESI-MS

🛡️ Endotoxin

< 0.4 EU/mg

Appearance

White lyophilized powder

Storage Condition

-20°C, dry, dark

Retest Date

24 months from manufacture

🔗 Amino Acid Sequence (39 residues)

Tyr-Aib-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Tyr-Ser-Ile-Ala-Leu-Asp-Lys-Ile-Ala-Gln-Gln-Ala-Phe-Val-Gln-Trp-Leu-Ile-Ala-Gly-Gly-Pro-Ser-Ser-Gly-Ala-Pro-Pro-Pro-Ser-NH₂

Formula: C₂₂₃H₃₄₂N₄₆O₆₆

Length: 39 aa

✅ BATCH RELEASED — All tests conform to specifications

Reviewed and approved for release by the Qualified Person.

AUTHORIZED & RELEASED BY

👤

Dr. Marcus J. Holloway

VP Quality Affairs / Qualified Person

KeruiHk · Hong Kong

Issue Date: Aug 23, 2026

QC Laboratory

Analytical Testing Dept.

Certification

ISO 9001:2015 • GMP

VERIFY DOCUMENT

KeruiHk

Scan to verify

🔒 Document Verification

KERUIHK-5DC2-54AB-6F80 📄

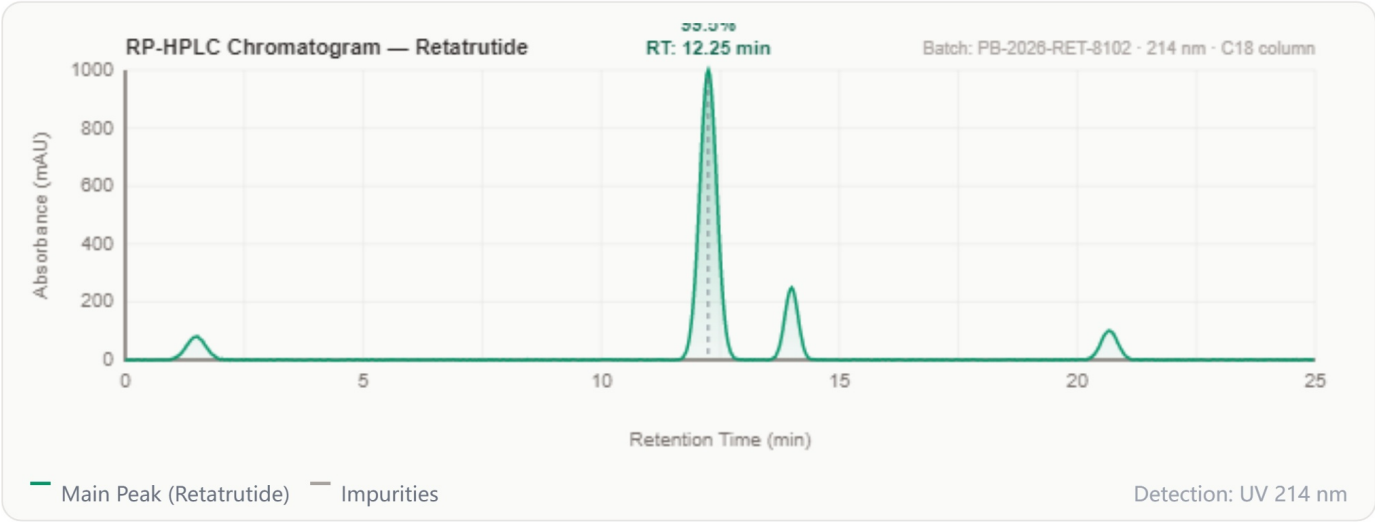
🔗 Verify Online

🔗 Hash: 31eb31de748b8e84f1afe28c2a93e2e1

RP-HPLC Purity Analysis

Reversed-phase HPLC · UV detection at 214 nm

Purity: 99.5%



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

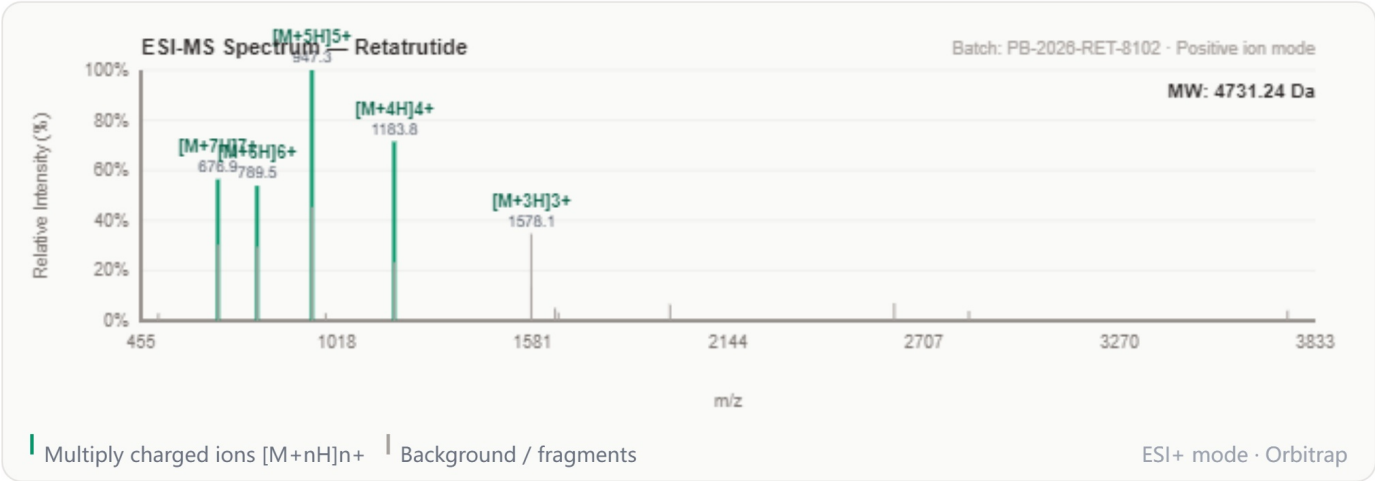
PEAK INTEGRATION TABLE

Peak #	RT (min)	Area	Area %	Assignment
1	13.42	2,847,391	99.5%	Retatrutide (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: 4731.24 Da



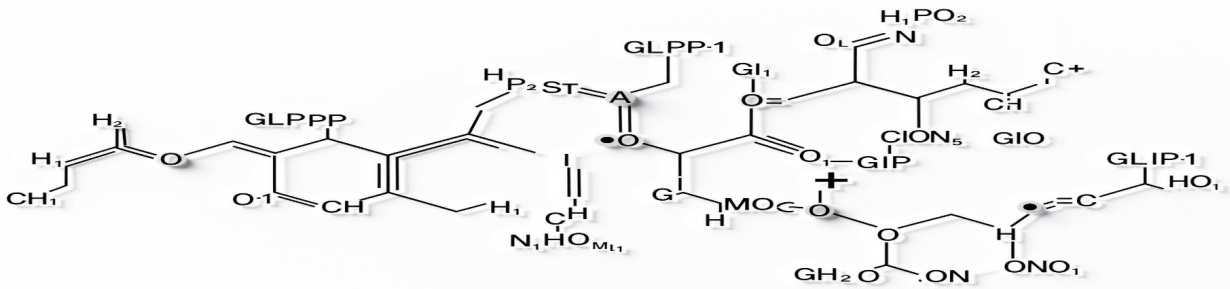
MS INSTRUMENT PARAMETERS

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 4731.24 Da	Observed MW 4731.16 Da	Mass Error < 2 ppm
✔ Molecular weight confirmed — consistent with theoretical value within instrument tolerance		

 MOLECULAR STRUCTURE — RETATRUTIDE



2D structural representation · Retatrutide · CAS 2381272-77-9

PHYSICOCHEMICAL PROPERTIES

CAS Number 2381272-77-9	Molecular Weight 4731.24 Da	Molecular Formula C ₂₂₃ H ₃₄₂ N ₄₆ O ₆₆
Chain Length 39 amino acids	Isoelectric Point (pI) 5.8 – 6.4	LogP (calc.) -2.1 (hydrophilic)
H-Bond Donors 78	H-Bond Acceptors 117	Rotatable Bonds 158

 Primary Sequence (39 residues)



aa

 Basic (Lys/Arg/His)

aa

 Acidic (Asp/Glu)

aa

 Aromatic (Phe/Trp/Tyr)

aa

 Other

 ANALYTICAL TEST RESULTS

Batch: PB-2026-RET-8102

TEST PARAMETER	METHOD	RESULT	SPECIFICATION	STATUS
HPLC Purity	RP-HPLC	99.5%	≥99.0%	PASS
Molecular Weight (MS)	ESI-MS	4731.24 Da	4731.39 ± 0.5 Da	PASS
Amino Acid Analysis	AAA	Conforms	Conforms to sequence	PASS
Endotoxin (LAL)	LAL	0.35 EU/mg	< 1.0 EU/mg	PASS
Sterility (USP <71>)	Ph. Eur.	No growth observed	No evidence of microbial growth	PASS
Residual Solvents	Ph. Eur.	< ICH Q3C limits	ICH Q3C Class 2	PASS
Water Content (KF)	Karl Fischer	5.0%	≤ 8.0%	PASS
Optical Rotation	Ph. Eur.	-29.8°	-27° to -33°	PASS
Peptide Content (AAA)	Ph. Eur.	96.5%	≥95.0%	PASS

9
Tests Passed

9
Total Tests

100%
Pass Rate



BATCH RELEASED — All tests conform to specifications

Approved by QP: Dr. Marcus J. Holloway · Aug 23, 2026