

KH

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Document No.

KERUIHK-QC-B57518

CERTIFICATE OF ANALYSIS

TB-500

CAS No. 77591-33-4

Batch No.

PB-2026-TB5-7518

Grade

Research

Issue Date

Aug 20, 2026

✉ support@keruihk.net

🌐 keruihk.net

🛡️ ISO 9001:2015

GMP Certified

📊 Purity (HPLC)

98.9%

🔍 Molecular Weight

4963.60 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

🔗 Amino Acid Sequence (44 residues)

Ac-Ser-Asp-Lys-Pro-Asp-Met-Ala-Glu-Ile-Glu-Lys-Phe-Asp-Lys-Ser-Lys-Leu-Lys-Lys-Thr-Glu-Thr-Gln-Glu-Lys-Gln-Ala-Gly-Glu-Ser

Formula: C₂₁₂H₃₅₀N₅₆O₇₈S Length: 44 aa

✅ BATCH RELEASED — All tests conform to specifications

Reviewed and approved for release by the Qualified Person.

AUTHORIZED & RELEASED BY

👤

Dr. Priya Nair

Analytical Chemistry Lead

KeruiHk · Hong Kong

Issue Date: Aug 20, 2026

QC Laboratory

Analytical Testing Dept.

Certification

ISO 9001:2015 · Research

VERIFY DOCUMENT

KeruiHk

Scan to verify

📄 Document Verification

KERUIHK-E46A-F226-8CE2

🔗 Verify Online

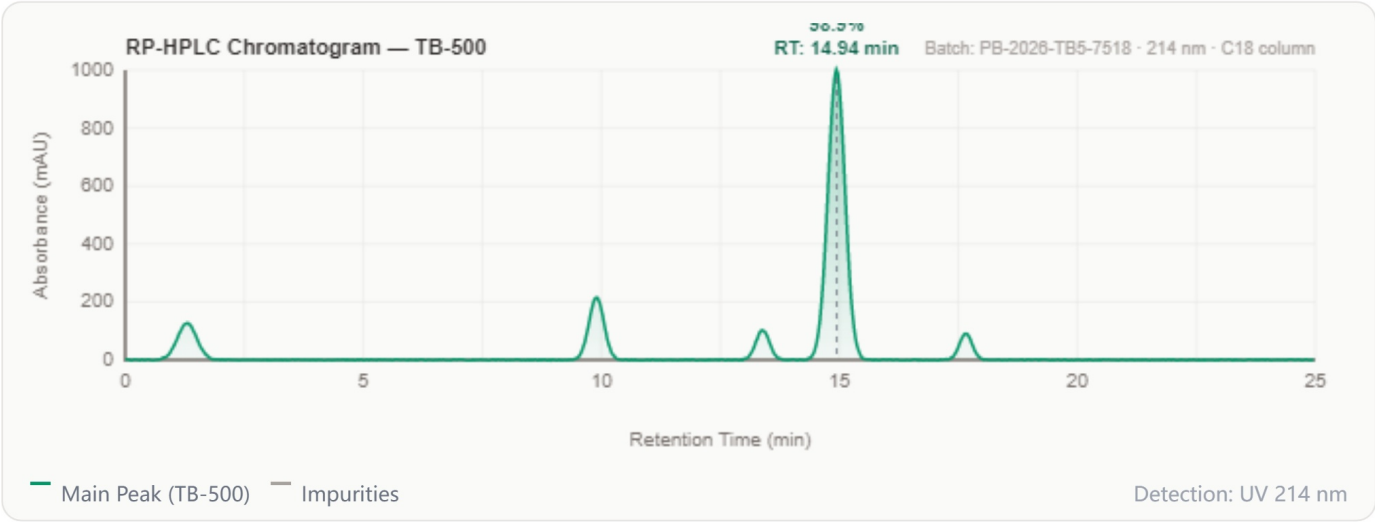
🔗 Hash:

832d4b18b4fcd96c2329bf5009bbffbc

RP-HPLC Purity Analysis

Reversed-phase HPLC · UV detection at 214 nm

Purity: 98.9%



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

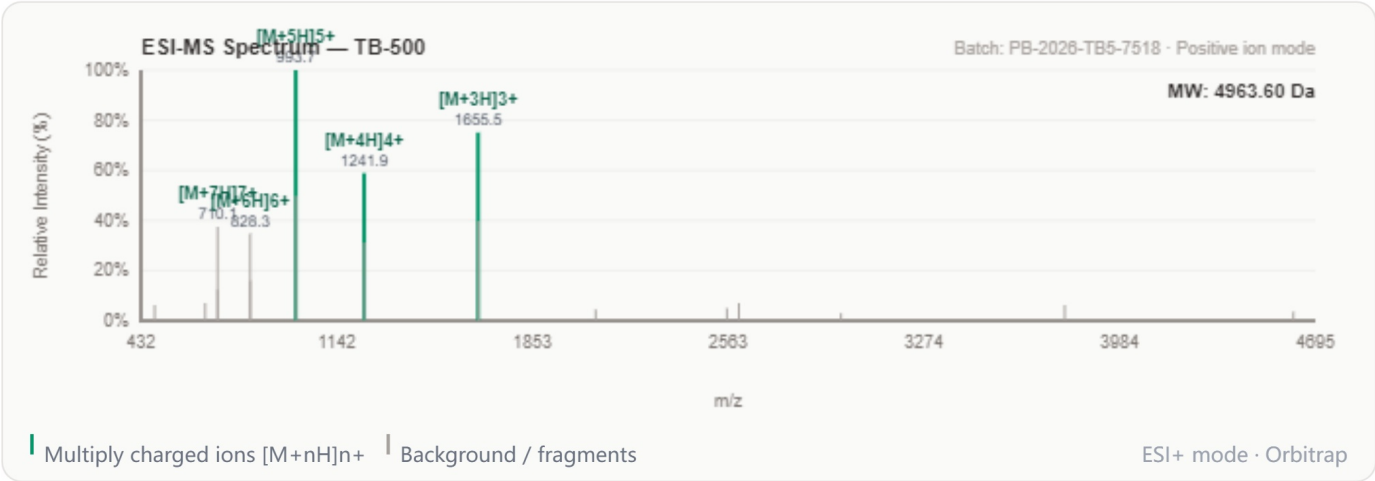
PEAK INTEGRATION TABLE

Peak #	RT (min)	Area	Area %	Assignment
1	13.42	2,847,391	98.9%	TB-500 (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: 4963.60 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 4963.60 Da	Observed MW 4963.53 Da	Mass Error < 2 ppm
✔ Molecular weight confirmed — consistent with theoretical value within instrument tolerance		

MOLECULAR STRUCTURE — TB-500

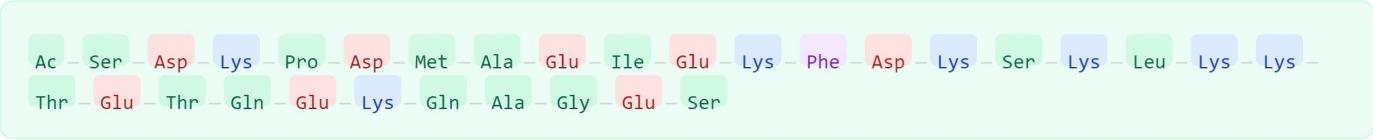


2D structural representation · TB-500 · CAS 77591-33-4

PHYSICOCHEMICAL PROPERTIES

CAS Number 77591-33-4	Molecular Weight 4963.60 Da	Molecular Formula C ₂₁₂ H ₃₅₀ N ₅₆ O ₇₈ S
Chain Length 44 amino acids	Isoelectric Point (pI) 5.8 – 6.4	LogP (calc.) -2.1 (hydrophilic)
H-Bond Donors 88	H-Bond Acceptors 132	Rotatable Bonds 178

Primary Sequence (44 residues)



aa

 Basic (Lys/Arg/His)

aa

 Acidic (Asp/Glu)

aa

 Aromatic (Phe/Trp/Tyr)

aa

 Other

 ANALYTICAL TEST RESULTS

Batch: PB-2026-TB5-7518

TEST PARAMETER	METHOD	RESULT	SPECIFICATION	STATUS
HPLC Purity	RP-HPLC	98.9%	≥97.0%	PASS
Molecular Weight (MS)	ESI-MS	4963.60 Da	4963.44 ± 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 (≥1 mg/mL)	PASS
Water Content (KF)	Karl Fischer	6.1%	≤ 8.0%	PASS
Residual Solvents	Ph. Eur.	< ICH Q3C limits	ICH Q3C Class 2	PASS
Sterility (USP <71>)	Ph. Eur.	No growth observed	No evidence of microbial growth	PASS

8
Tests Passed

8
Total Tests

100%
Pass Rate



BATCH RELEASED — All tests conform to specifications

Approved by QP: Dr. Priya Nair · Aug 20, 2026