KH
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Document No.
KERUIHK-QC-LOW024

CERTIFICATE OF ANALYSIS

KLOW

CAS No. Multiple components

Batch No.	Grade	Issue Date
PB-2026-KLOW-024	Research	Sep 19, 2026

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ISO 9001:2015 GMP Certified

Purity (HPLC)	Molecular Weight	Test Method	Endotoxin
99.0%–99.3%	340.44 / 1419.48 / 4963.4 / 382.5 Da	RP-HPLC / LC-MS / ICP-MS	0.15 EU/mg

Appearance	Storage Condition	Retest Date
Light blue lyophilized powder	-20°C, dry, dark	24 months from manufacture

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

AUTHORIZED & RELEASED BY

Dr. Sophia R. Chen
Head of Analytical QC / QP
KeruiHk · Hong Kong
Issue Date: Sep 19, 2026

QC Laboratory	Certification
Analytical Testing Dept.	ISO 9001:2015 • Research

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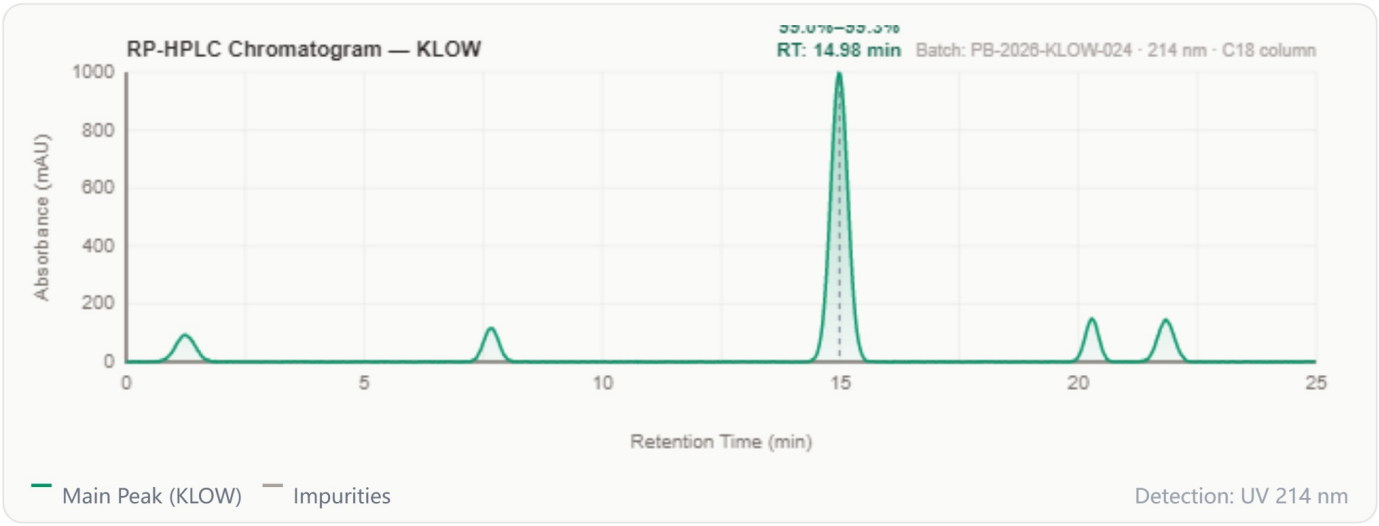
RP-HPLC Purity Analysis

Reversed-phase HPLC · UV detection at 214 nm

Purity: 99.0%–99.3%



INSTRUMENT & METHOD PARAMETERS

Instrument **Agilent 1260 Infinity II**	Column **Phenomenex Luna C18, 250×4.6mm, 5µm**	Mobile Phase A **0.1% TFA in H_2O**
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**

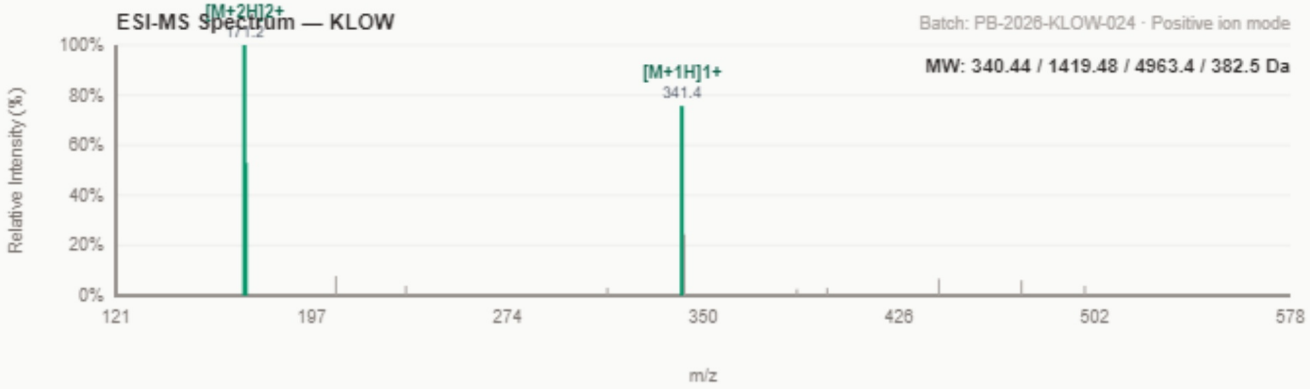
PEAK INTEGRATION TABLE

Peak #	RT (min)	Area	Area %	Assignment
1	13.42	2,847,391	**99.0%–99.3%**	**KLOW (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: 340.44 / 1419.48 / 4963.4 / 382.5 Da



Multiply charged ions [M+nH]n+ | Background / fragments ESI+ mode · Orbitrap

MS INSTRUMENT PARAMETERS

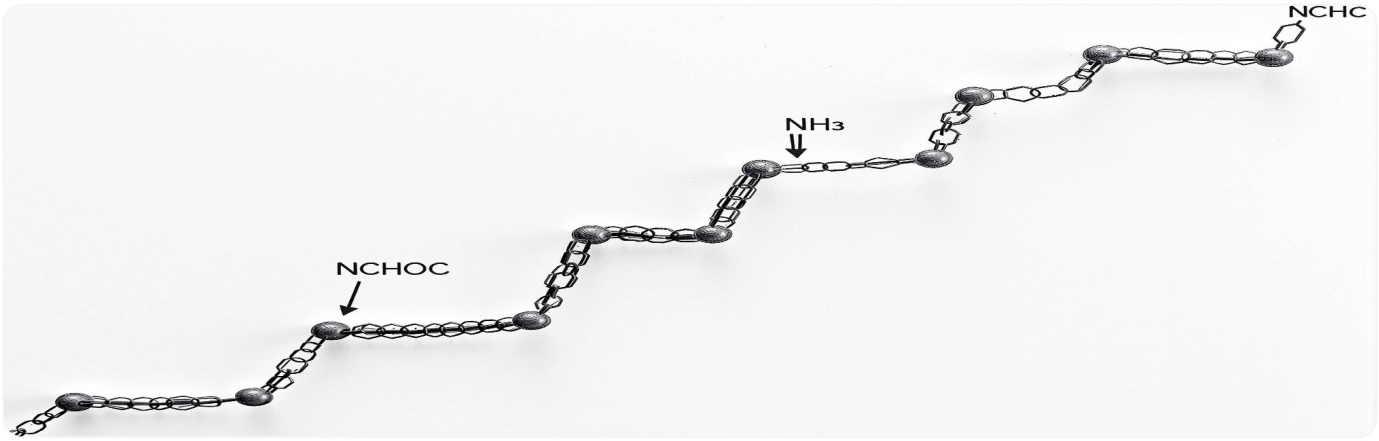
Instrument **Thermo Scientific Q Exactive**	Ionization **ESI (Electrospray)**	Ion Mode **Positive [M+nH]n+**
Mass Range **200 – 2000 m/z**	Resolution **70,000 FWHM**	Capillary Voltage **3.5 kV**
Source Temp. **320°C**	Sheath Gas **N_2, 35 arb**	Mass Accuracy **< 5 ppm**

DECONVOLUTED MASS RESULT

Theoretical MW	Observed MW	Mass Error
340.44 / 1419.48 / 4963.4 / 382.5 Da	**340.36 Da**	**< 2 ppm**

Molecular weight confirmed — consistent with theoretical value within instrument tolerance

MOLECULAR STRUCTURE — KLOW



2D structural representation · KLOW · CAS Multiple components

PHYSICOCHEMICAL PROPERTIES

CAS Number **Multiple components**	Molecular Weight **340.44 / 1419.48 / 4963.4 / 382.5 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-KLOW-024

TEST PARAMETER	METHOD	RESULT	SPECIFICATION	STATUS
GHK-Cu • Mass Identity	Ph. Eur.	**340.44 Da**	Conforms to reference	PASS
GHK-Cu • HPLC Purity	RP-HPLC	**99.3%**	≥98.0%	PASS
GHK-Cu • Content	Ph. Eur.	**50.3 mg/vial**	47.5–52.5 mg/vial	PASS
BPC-157 • Mass Identity	Ph. Eur.	**1419.48 Da**	1419.5 ± 0.5 Da	PASS
BPC-157 • HPLC Purity	RP-HPLC	**99.2%**	≥98.0%	PASS
BPC-157 • Content	Ph. Eur.	**10.1 mg/vial**	9.5–10.5 mg/vial	PASS
TB-500 • Mass Identity	Ph. Eur.	**4963.4 Da**	4963 ± 1.0 Da	PASS
TB-500 • HPLC Purity	RP-HPLC	**99.0%**	≥98.0%	PASS
TB-500 • Content	Ph. Eur.	**10.0 mg/vial**	9.5–10.5 mg/vial	PASS
KPV • Mass Identity	Ph. Eur.	**382.5 Da**	Conforms to reference	PASS
KPV • HPLC Purity	RP-HPLC	**99.1%**	≥98.0%	PASS
KPV • Content	Ph. Eur.	**9.9 mg/vial**	9.5–10.5 mg/vial	PASS
Total Peptide Content	Ph. Eur.	**80.3 mg/vial**	76.0–84.0 mg/vial	PASS
Blend Uniformity	Ph. Eur.	**2.2% RSD**	≤5.0% RSD	PASS
Endotoxin (LAL)	LAL	**0.15 EU/mg**	<0.5 EU/mg	PASS
Sterility (USP <71>)	Ph. Eur.	**No growth observed**	No evidence of microbial growth	PASS
Water Content (KF)	Karl Fischer	**4.5%**	≤8.0%	PASS
Residual Solvents	Ph. Eur.	**< ICH Q3C limits**	ICH Q3C	PASS

18
Tests Passed

18
Total Tests

100%
Pass Rate

BATCH RELEASED — All tests conform to specifications
Approved by QP: Dr. Sophia R. Chen · Sep 19, 2026