KH
**PepNexa**
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Document No.
**PEPNEXA-QC-PV7030**

CERTIFICATE OF ANALYSIS

# KPV

CAS No. 13147-13-2

Batch No.
**PEPNEXA-2026-KPV-7030**

Grade
**Research**

Issue Date
**Aug 28, 2026**

theslowestviper1997@gmail.com | pepnexa.com

ISO 9001:2015 GMP Certified

| Purity (HPLC) | Molecular Weight | Test Method | Endotoxin |
|---|---|---|---|
| 99.5% | 382.44 Da | RP-HPLC / ESI-MS | N/A (Research Grade) |

| Appearance | Storage Condition | Retest Date |
|---|---|---|
| White 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. Ingrid Svensson**
**Bioanalytical QC Specialist**
PepNexa · Hong Kong
Issue Date: Aug 28, 2026

QC Laboratory
Analytical Testing Dept.

Certification
ISO 9001:2015 · Research

VERIFY DOCUMENT

**PepNexa**
Scan to verify

**Batch Verification**
**PEPNEXA-2026-KPV-7030**

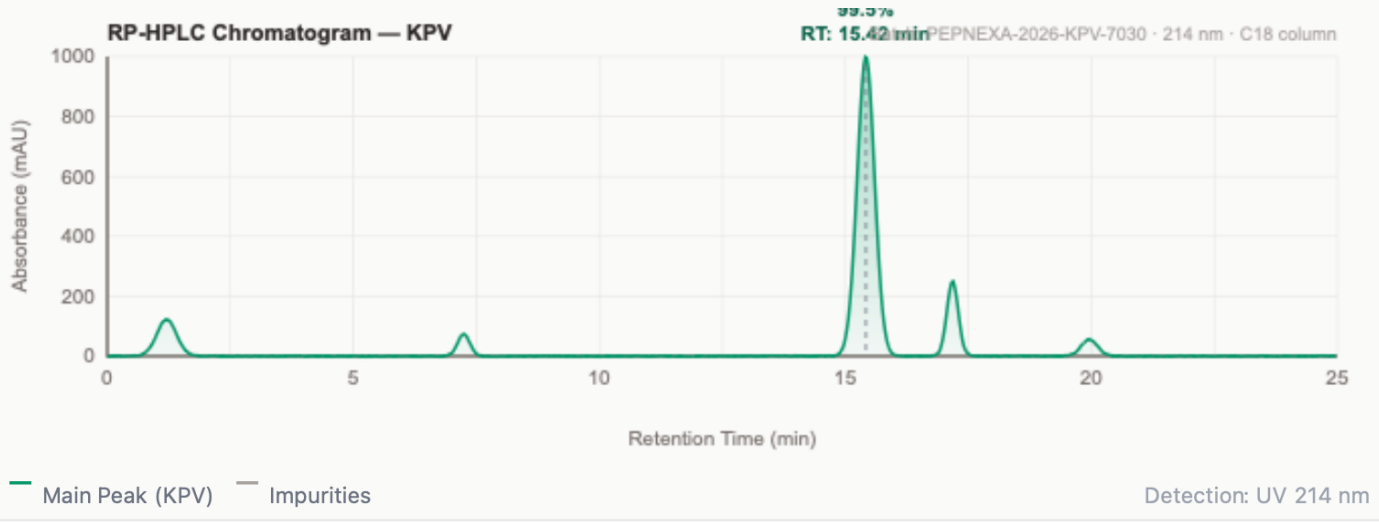
Verify Online

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## RP-HPLC Purity Analysis

Reversed-phase HPLC · UV detection at 214 nm

**Purity: 99.5%**




### INSTRUMENT & METHOD PARAMETERS

| | | |
|---|---|---|
| Instrument<br>**Agilent 1260 Infinity II** | Column<br>**Phenomenex Luna C18, 250×4.6mm, 5µm** | Mobile Phase A<br>**0.1% TFA in $H_2O$** |
| Mobile Phase B<br>**0.1% TFA in ACN** | Gradient<br>**5→65% B over 30 min** | Flow Rate<br>**1.0 mL/min** |
| Detection<br>**UV 214 nm** | Injection Volume<br>**10 µL** | Column Temp.<br>**40°C** |

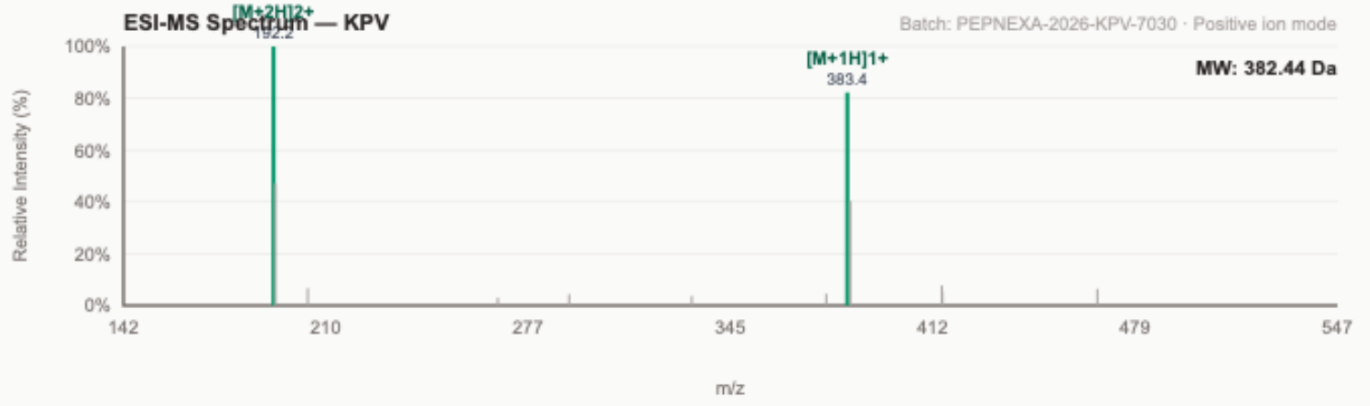
### PEAK INTEGRATION TABLE

| Peak # | RT (min) | Area | Area % | Assignment |
|---|---|---|---|---|
| 1 | 13.42 | 2,847,391 | **99.5%** | **KPV (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: 382.44 Da**




### MS INSTRUMENT PARAMETERS

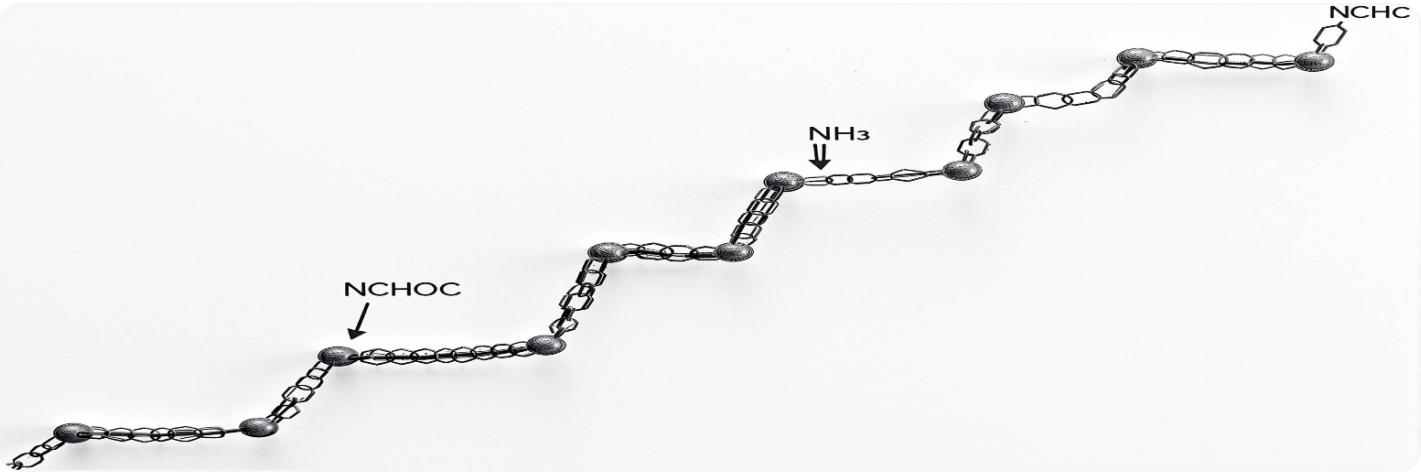
| | | |
|---|---|---|
| Instrument<br>**Thermo Scientific Q Exactive** | Ionization<br>**ESI (Electrospray)** | Ion Mode<br>**Positive [M+nH]n+** |
| Mass Range<br>**200 – 2000 m/z** | Resolution<br>**70,000 FWHM** | Capillary Voltage<br>**3.5 kV** |
| Source Temp.<br>**320°C** | Sheath Gas<br>**$N_2$,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

### DECONVOLUTED MASS RESULT

| Theoretical MW | Observed MW | Mass Error |
|---|---|---|
| **382.44 Da** | **382.51 Da** | **< 2 ppm** |

**Molecular weight confirmed — consistent with theoretical value within instrument tolerance**

## MOLECULAR STRUCTURE — KPV




2D structural representation · KPV · CAS 13147-13-2

### PHYSICOCHEMICAL PROPERTIES

| | | |
|---|---|---|
| CAS Number<br>**13147-13-2** | Molecular Weight<br>**382.44 Da** | Molecular Formula<br>— |
| Chain Length<br>— | Isoelectric Point (pI)<br>**5.8 – 6.4** | LogP (calc.)<br>**-2.1 (hydrophilic)** |
| H-Bond Donors<br>— | H-Bond Acceptors<br>— | Rotatable Bonds<br>— |

## ANALYTICAL TEST RESULTS

Batch: PEPNEXA-2026-KPV-7030

| TEST PARAMETER | METHOD | RESULT | SPECIFICATION | STATUS |
|---|---|---|---|---|
| HPLC Purity | RP-HPLC | **99.5%** | ≥99.0% | PASS |
| Molecular Weight (MS) | ESI-MS | **382.44 Da** | 382.5 ± 0.2 Da | PASS |
| Amino Acid Analysis | AAA | **Conforms** | Conforms to sequence | PASS |
| Appearance | Ph. Eur. | **White powder** | White to off-white powder | PASS |
| Solubility | Ph. Eur. | **Soluble in water** | Soluble in water (≥10 mg/mL) | PASS |
| Water Content (KF) | Karl Fischer | **3.8%** | ≤ 6.0% | PASS |
| Residual Solvents | Ph. Eur. | **< ICH Q3C limits** | ICH Q3C Class 2 | PASS |

| 7 | 7 | 100% |
|---|---|---|
| Tests Passed | Total Tests | Pass Rate |

**BATCH RELEASED — All tests conform to specifications**
Approved by QP: Dr. Ingrid Svensson · Aug 28, 2026