# Certificate of Analysis

**ILS Laboratories**
8222 Vickers St, Suite 106, San Diego, CA 92111
(619) 329-3999 | ils-lab.com

## R3 - 10mg

**Tested for: PS SUPPLY**

**PASS**

| | | | |
|---|---|---|---|
| COA #: | **COA-2026-5UGUZ2** | Analysis Date: | **09/30/2026** |
| Lot Number: | **PS10-R310** | Appearance: | **Good** |
| Accession #: | **ACC-2026-21344** | Sample Matrix: | **Lyophilized** |
| Labeled Content: | **10mg** | Volume: | **3mL** |
| | | Date Received: | **09/29/2026** |

Scan to verify authenticity at ils-lab.com
**Access Code: 7D259BYK**

Method: **Full QC Panel**

| Identity | Peptide Purity | |
|---|---|---|
| **R3** | **99.57%** | Fentanyl Free |

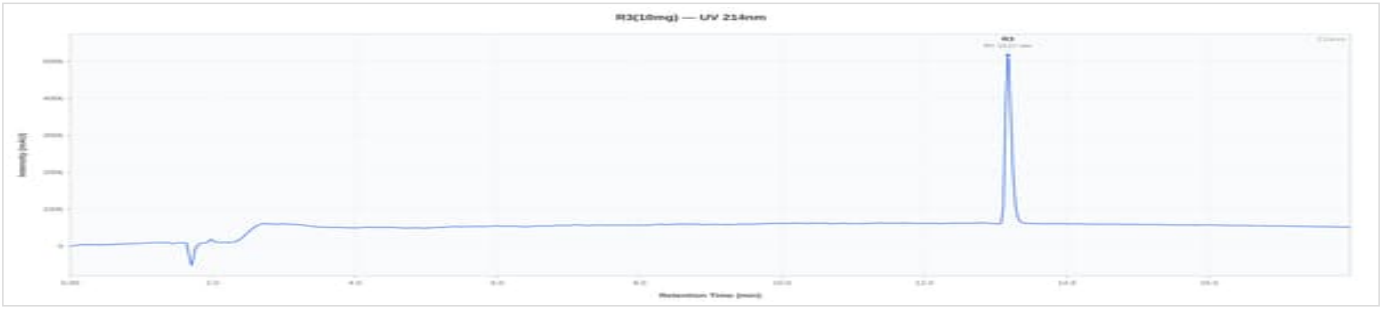


*R3 10mg - PS10-R310*

### Purity, Identity & Quantitation (HPLC)

| Analyte | Specification | Result | Unit | Status |
|---|---|---|---|---|
| **Peptide Purity (HPLC)** | >= 95.0% | **99.57%** | % | **PASS** |
| **Net Peptide Content** | Report Only | **10.48** | mg | N/A |
| **Identity (HPLC-RTM)** | R3 | **Confirmed** | - | **PASS** |
| **Fentanyl Screen** | Immunoassay, 50 ng/mL cutoff | **Not Detected** | - | **PASS** |

### HPLC Chromatogram



*Representative chromatogram, Dedicated V0*

### HPLC Conformity Testing Results (2 samples tested)

| Sample | Purity | NPC | ID | Result |
|---|---|---|---|---|
| **Dedicated V0** | 99.57% | 10.48 mg | Confirmed | **PASS** |
| **Conformity V1** | 99.65% | 10.33 mg | Confirmed | **PASS** |
| **Mean** | **99.61%** | **10.41 mg** | — | — |
| **Std Dev** | **0.0400%** | **0.0750 mg** | — | — |

## Heavy Metals Analysis (ICP-MS)

| Test | Specification | Result | Status |
|---|---|---|---|
| **Arsenic (As)** | NMT 1.5 ppm | *Not Detected* | **PASS** |
| **Cadmium (Cd)** | NMT 0.5 ppm | *Not Detected* | **PASS** |
| **Lead (Pb)** | NMT 1.0 ppm | *Not Detected* | **PASS** |
| **Mercury (Hg)** | NMT 1.5 ppm | *Not Detected* | **PASS** |
| **Chromium (Cr)** | NMT 10.0 ppm | *Not Detected* | **PASS** |

## Sterility Testing (PCR)

| Test | Specification | Result | Status |
|---|---|---|---|
| **Sterility (PCR)** | No Growth | **No Growth** | **PASS** |

## Endotoxin Testing (USP <85>)

| Test | Specification | Result | Status |
|---|---|---|---|
| **Endotoxin (USP <85>)** | NMT 0.25 EU/mL | **NMT 0.05 EU/mL** | **PASS** |

*Acceptance criteria: NMT 0.25 EU/mL per client specification.*

### Notes & Methodology

1. Date Tested: 09/30/2026. Methods: Purity, Identity & Quantitation (HPLC).
2. The sample was confirmed to be R3 by HPLC. Identification by chromatographic retention time comparison with a reference standard.
3. Elemental impurities analyzed by ICP-MS per USP <233> methodology. Acceptance criteria are internal laboratory quality screening limits for research-use materials and do not represent evaluation against any specific pharmacopeial monograph or product specification.
4. Endotoxin tested per USP <85> kinetic chromogenic method. Acceptance criteria per client specification.
5. Peptide purity determined by RP-HPLC area normalization at 214 nm. Value represents the percentage of the target peptide relative to all peptide-related peaks. Non-peptide process-related impurities, if detected, are excluded from the calculation.
6. Chromatogram shown is representative: Dedicated V0 (99.57% purity, closest to batch mean of 99.61%).
7. Quality System: ILS Laboratories operates an ISO/IEC 17025 quality management system. Peptide testing is performed for Research Use Only.
8. This certificate reports analytical results for the sample(s) submitted to ILS Laboratories for testing. All sample identifications, product names, brand names, lot/batch numbers, and labeled content are provided by the submitting party and have not been independently verified. Results reflect only the analytical testing of the specific sample(s) provided and do not constitute an evaluation or endorsement of the manufacturer's processes, quality systems, or overall production. ILS Laboratories makes no representations regarding the intended use, safety, efficacy, regulatory status, or intellectual property ownership of any materials tested.

ILS LABS

**Issued by ILS Laboratories**

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**Dr. Greg Kalyuzhny**

Lab Director

09/30/2026

COA #: **COA-2026-5UGUZ2**

Access Code: **7D259BYK**

Verify: portal.ils-lab.com/verify/xB5GU8L5XMmFzw5u

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