Certificate of Analysis

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

ARA-290 - 10mg

10x Tested

PASS

Tested for: Amino Club
aminoclub.com

COA #:	**COA-2026-U1IK1I**	Analysis Date:	**10/22/2026**
Lot Number:	**ARA0002**	Cap Color:	**Grey**
Accession #:	**ACC-2026-23565**	Sample Matrix:	**Lyophilized**
Labeled Content:	**10mg**	Volume:	**3mL**
		Date Received:	**10/20/2026**

Scan to verify authenticity at ils-lab.com
Access Code: NCH348V6

Method: **Full QC Panel**

Identity	Peptide Purity	
ARA-290	**99.93%**	Fentanyl Free

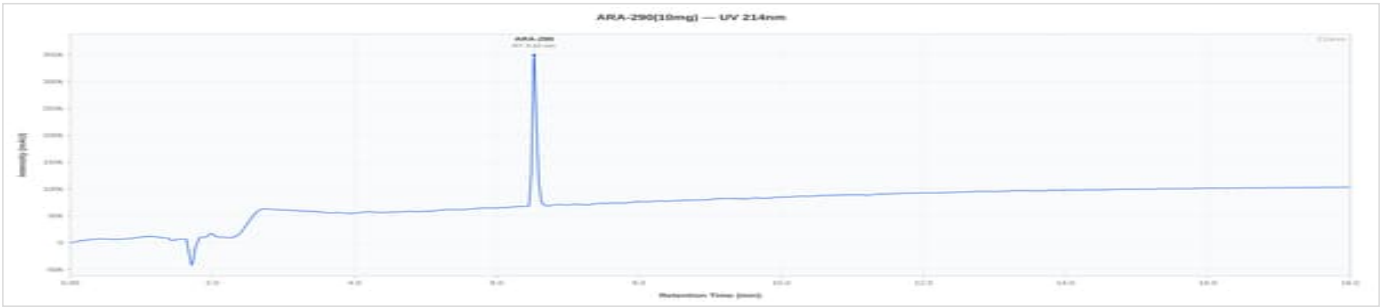


ARA-290 10mg - ARA0002

Purity, Identity & Quantitation (HPLC)

Analyte	Specification	Result	Unit	Status
Peptide Purity (HPLC)	>= 95.0%	**99.93%**	%	**PASS**
Net Peptide Content	Report Only	**10.53**	mg	N/A
Identity (HPLC-RTM)	ARA-290	**Confirmed**	-	**PASS**
Fentanyl Screen	Immunoassay, 50 ng/mL cutoff	**Not Detected**	-	**PASS**

HPLC Chromatogram



Chromatogram, Conformity V1 (99.93% purity)

Additional Analyses

Solubility Analysis
Method: Visual Solubility Assessment (USP general notices descriptive terms)
Result: Fully soluble - clear solution Spec: Report Only Status: Report Only
Solvent: Nuclease-Free Water Concentration: 1 mg/mL

Closure Integrity
Method: Vacuum Leak Test (USP <1207>)
Result: No leakage observed Spec: No leakage observed Status: PASS

HPLC Conformity Testing Results (2 samples tested)

Sample	Purity	NPC	ID	Result
Dedicated V0	99.64%	10.64 mg	Confirmed	**PASS**
Conformity V1	99.93%	10.53 mg	Confirmed	**PASS**
Mean	**99.78%**	**10.59 mg**	—	—
Std Dev	**0.1450%**	**0.0550 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 .25 EU/mL	**NMT 0.05 EU/mL**	**PASS**

Acceptance criteria: NMT .25 EU/mL per client specification.

Notes & Methodology

1. Date Tested: 10/22/2026. Methods: Purity, Identity & Quantitation (HPLC).
2. The sample was confirmed to be ARA-290 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: Conformity V1 (99.93% purity).
7. Accreditation Scope: ILS Laboratories maintains ISO/IEC 17025 accreditation for activities listed in its published PJLA scope. Peptide testing reported on this certificate 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.

Issued by ILS Laboratories
(619) 329-3999
ils-lab.com

Dr. Greg Kalyuzhny
Lab Director
10/22/2026

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