CLIENT & SAMPLE INFORMATION

Client	Instant Peptides	**Certified Date**	08/18/2026
Product Name	NAD+	**Form / Matrix**	Nasal Spray
Lot / Batch	2026-0332-A		

This Certificate of Analysis reports the qualitative identity of the declared peptide active(s) within the submitted nasal-spray formulation. Identity was established by LC-MS: each declared active was searched for at its own expected mass and the measured ion assessed against the run's mass-accuracy figure. The concentration of each declared active was separately determined by HPLC-UV against a reference standard and is reported below. This report states PRESENCE and CONCENTRATION; it does not state delivered dose.

PEPTIDE IDENTITY (LC-MS)

Each row below is the result this sample's own LC-MS acquisition produced for that active -- the Observed column is the ion the instrument recorded, and an empty Observed cell means no expected ion was matched. Accurate mass establishes a mass, not a structure, and peak intensity is not proportional to concentration, so this table reports IDENTITY only.

Declared Active	Theoretical m/z	Observed m/z	Status
NAD+	664.1164	664.1179	DETECTED
Overall Identity Determination			DETECTED

Method: LC-MS with ESI+ ionization

CONTENT (HPLC-UV)

Concentration of each declared active in the submitted solution, determined by HPLC-UV against a reference standard of that active. This is a separate determination from the identity table above and does not derive from it. An empty Measured cell means the active was not quantitated.

Declared Active	Label Claim (mg/mL)	Measured (mg/mL)	% of Claim	Status
NAD+	50	56.19	112.4%	PASS
Overall Content Determination				PASS

Method: HPLC-UV, external calibration against a reference standard.**Specification:** label claim −10.0% / +20.0%.

ADDITIONAL QUALITY SCREENS

ENDOTOXIN SCREEN

Method	LAL (USP <85>)
Limit	<= 0.5 EU/mL
Result	< 0.10 EU/mL
Status	PASS

STERILITY / MICROBIAL SCREEN

Method	Rapid Sterility
Specification	No Growth
Result	No microbial growth detected
Status	PASS

TESTING METHODOLOGY & SUBMITTED SAMPLE

Peptide Identity in Nasal-Spray Matrix

Each declared active was analyzed directly from the submitted nasal-spray solution by liquid chromatography with mass-spectrometric detection. A charge-state ladder was computed from the expected mass of each declared peptide, and the acquisition was searched for those ions; a component is reported as identified only where a matched ion was measured within the run's own mass-accuracy tolerance.

Content in Nasal-Spray Matrix

Concentration was determined by high-performance liquid chromatography with UV detection, quantitated by external calibration against a reference standard of each declared active and reported against that active's label claim. This determination is independent of the identity assessment above and is the only quantitative measurement on this certificate.

Sample Preparation: Aliquots of the submitted solution were diluted in LC-MS-grade solvent, filtered through a 0.22 µm PTFE membrane, and injected directly onto the analytical column. No derivatization was performed.

Scope & Limitations: This report establishes qualitative identity of the declared active(s) in the submitted solution, and the concentration of each active that was quantitated, by HPLC-UV against a reference standard. Identity and concentration are separate determinations; mass-spectrometric peak intensity is not itself proportional to concentration. Concentration is a property of the solution as submitted and is NOT a delivered dose: this report does not establish the mass expelled per actuation, delivered dose accuracy of the pump/actuator, the total content of the container, biological activity, finished-product stability, sterility beyond any screen reported above, or fitness for any particular use.

CONFORMANCE STATEMENT

Identity confirmed. The declared peptide active — **NAD+** — was detected in the submitted nasal-spray formulation. This certificate attests to the identity of the submitted solution only, and makes no statement about content, concentration or delivered dose.