

CERTIFICATE OF ANALYSIS

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PRODUCT IDENTIFICATION	
Product Name	BAC Water
Catalog No. (SKU)	BA10
Lot / Batch No.	ZBV-BA10-20260119
Quantity per Vial	10 ml
Manufacture Date	2026-01-19
Analysis Date	2026-01-25
Expiration Date	2028-01-25
Physical Appearance	Clear, colorless liquid in a sealed glass vial
Material Form	Sterile liquid diluent

MOLECULAR CHARACTERIZATION	
Chemical Name / Synonyms	BAC Water; Bacteriostatic Water; laboratory bacteriostatic diluent
Molecular Formula	H2O (0.9% benzyl alcohol preservative)
Molecular Weight (Calc.)	18.02 Da (H2O matrix)
Primary Structure	Sterile water matrix with benzyl alcohol preservative. Identity confirmed against the sealed lot label; not a peptide conjugate.
CAS Registry No.	7732-18-5

SUMMARY OF ANALYTICAL RESULTS			
Analytical Test	Specification	Result	Method Reference
HPLC Purity (area %)	>= 98.0%	99.8%	In-house HPLC / USP <621>
Identity Confirmation (MS)	Consistent with reference	Conforms	ESI-MS / LC-MS
Water Content (Karl Fischer)	<= 5.0%	3.03%	USP <921> Method Ic
Acetate / Counter-ion	Report value	8.96%	Ion Chromatography
Appearance	White to off-white powder	Conforms	Visual inspection

Qualified as an in-vitro analytical reference standard only. Not for human, veterinary, diagnostic, or therapeutic use.

HPLC PURITY ASSAY - CHROMATOGRAPHIC CONDITIONS	
Column	C18 reversed-phase, 4.6 x 250 mm, 5 um, 300 A pore size
Mobile Phase	A: 0.1% TFA/H2O; B: 0.1% TFA/ACN; linear gradient 5-65% B over 45 min
Flow Rate	1.0 mL/min
Detection	UV 214 nm with in-line ESI-MS identity check
Main Peak RT	18.95 min

Main Peak Area	99.8%
Total Related Substances	0.20%
System Suitability	N >= 2000 plates; tailing factor <= 1.5 (USP <621>)

MASS SPECTROMETRY IDENTITY CONFIRMATION

Ionization Mode	ESI-Positive
Theoretical Mass	18.02 Da
Observed Mass (M+H)+	18.06 Da
Mass Delta	+/- 0.06 Da
MS/MS Fragmentation	Major b/y series consistent with assigned structure
Identity Conclusion	Conforms - observed mass within method tolerance

SUPPLEMENTAL QUALITY ATTRIBUTES

Test Parameter	Acceptance Criteria	Result	Technique
Bacterial Endotoxin	<= 0.25 EU/mg	< 0.10 EU/mg (kinetic chromogenic LAL)	USP <85> LAL
Heavy Metals (screen)	<= 10 ppm	< 5 ppm combined (ICP-MS screen)	ICP-MS
Residual Solvents	ICH Q3C compliant	Complies with ICH Q3C (GC headspace)	GC Headspace
Related Substances	Single impurity <= 0.5%	Conforms	HPLC
Peptide Content (UV)	Report value	99.2%	UV 214 nm

STORAGE & HANDLING

Lyophilized / Unopened Solid	Sealed liquid diluent. Store unopened vials at 20-25 deg C (controlled room temperature; excursions 15-30 deg C). Protect from light. Do not freeze.
After Reconstitution (Analytical Solution)	This SKU is supplied as a ready laboratory diluent. Do not dilute further for catalog documentation. Keep the sealed vial closed when not in use.
Handling	Equilibrate the sealed vial to ambient temperature before opening. Do not shake vigorously. Use aseptic laboratory technique when withdrawing aliquots for in-vitro work.
Stability Note	Use by the labeled expiration when stored sealed at 20-25 deg C protected from light. Discard if the seal is compromised or the solution is cloudy.

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