



CERTIFICATE OF ANALYSIS

Issued by an ISO/IEC 17025-accredited laboratory · raw data appended (page 2)

PASS

QC released for dispatch



Scan to verify

5-Amino-1MQ — 50mg

5-Amino-1-methylquinolinium

1. PRODUCT IDENTIFICATION

Synonym	5-Amino-1-methylquinolinium	Label claim	50mg
Sequence / structure	—	Lot / Batch	ZX260512-857 / B64836
Mol. formula	C10H11IN2	Manufacture date	19 May 2026
Mol. weight	286.11 g/mol	Date of analysis	28 May 2026
CAS number	42464-96-0	Storage	-20 °C, dark, desiccated
Salt form	Free base / N/A		

2. ANALYTICAL TEST RESULTS

Test	Method	Specification	Result	Verdict
Appearance	Visual	Per monograph	Off-white to faint red crystalline powder	PASS
Identity	LC-MS + ¹ H-NMR	Matches 286.11 Da & ref	286.11 Da; conforms	PASS
Assay / Purity	RP-HPLC	≥ 98.0%	98.31%	PASS
Related substances	RP-HPLC	Total ≤ 2.0%	1.69%	PASS
Water content	Karl Fischer	≤ 5.0%	3.7%	PASS
Residual solvents	GC head-space (ICH Q3C)	Conforms	Conforms	PASS
Heavy metals	ICP-MS (ICH Q3D)	Conforms	Conforms	PASS

CONCLUSION

All tested parameters CONFORM to the acceptance specifications. The batch is of high chromatographic purity (≥ 98%) with an impurity profile, identity and residual/contaminant results meeting pharmaceutical-grade quality requirements. Material released. Supporting RP-HPLC chromatogram and ESI-MS spectrum are appended on page 2.

DWM.

Dr. Wang Mei

Analyst · 28 May 2026 · Zhongxi Research Institute

DGT.

Dr. Guo Tao (QC Manager)

Approved by · 28 May 2026 · Zhongxi Research Institute



APPENDIX — ANALYTICAL RAW DATA

5-Amino-1MQ 50mg · Lot ZX260512-857 · Cert. ZXR-COA-2026-41733



Scan to verify

Figure 1. RP-HPLC Chromatogram (UV 220 nm)

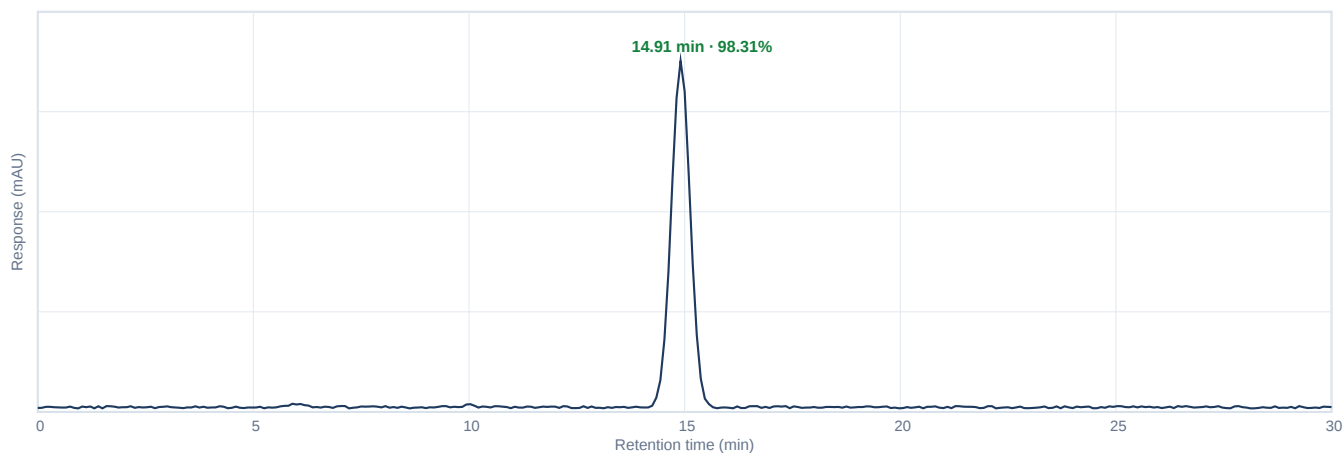
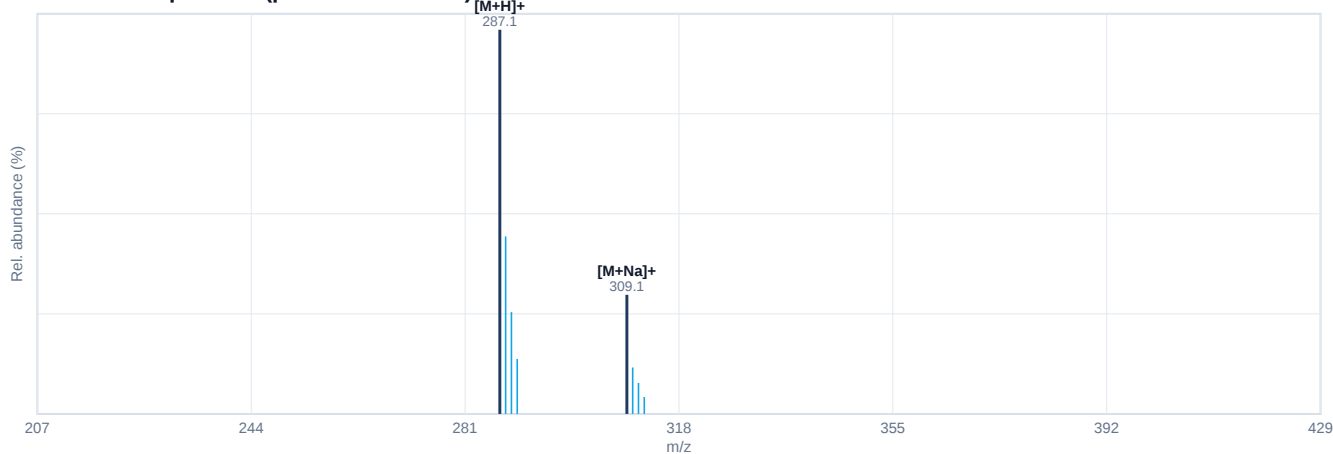


Figure 2. ESI-MS Spectrum (positive ion mode)



Interpretation

Identity confirmed by ESI-MS. Observed ions [M+H]⁺ 287.1, [M+Na]⁺ 309.1 deconvolute to a neutral monoisotopic-average mass of 286.11 Da (theoretical 286.11 Da; mass error 0 ppm), consistent with 5-Amino-1MQ. No co-eluting species above 0.5% indicative of misidentification.

Methods — RP-HPLC: Agilent 1260 Infinity II; Zorbax SB-C18 4.6×250 mm, 5 μm; A: 0.1% TFA in water, B: 0.1% TFA in MeCN; 10–70% B over 30 min; 1.0 mL/min; 25 °C; 20 μL injection. MS: AB Sciex TripleTOF, ESI⁺, capillary 4.5 kV, deconvolution by Bio Tool Kit. KF: Metrohm 901. IC: Thermo Dionex ICS-6000. ICP-MS: Agilent 7900.