Keystone

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keystonecompounds.com

CERTIFICATE NO.
PL–26–00125

VERIFICATION KEY
63PQ67AD

Scan or enter both at prymalab.net/testing/verify

CERTIFICATE OF ANALYSIS · LOT RELEASE · ISSUED FOR KEYSTONE

5-Amino-1MQ 50 mg

Lot **PL-2610-002** · Lyophilized powder · Label claim **50 mg per vial** · Distributed as **5-Amino-1MQ 50 mg**

TESTED IN-HOUSE BY PRYMALAB

In-house analytical result, not an independent third-party test

LOT / BATCH NUMBER	DATE MADE	DATE OF ANALYSIS	DATE ISSUED
PL–2610–002	2026-10-01	2026-10-02	2026-10-16

RETEST / EXPIRY	UNITS IN LOT / SAMPLED	STORAGE	CERTIFICATE TYPE
2028-10-01	261 / 2	−20 °C, desiccated, dark	Lot COA, 2 pages

COMPOUND
5-Amino-1MQ
5-Amino-1-methylquinolinium iodide (NNMT inhibitor); small molecule, not a peptide

CAS NUMBER
42464-96-0

MOLECULAR FORMULA
$C_{10}H_{11}N_2 \cdot I$ (cation $C_{10}H_{11}N_2^+$)

THEORETICAL MASS (AVG.)
286.11 Da (iodide salt) · 159.09 Da (cation)

STRUCTURE

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5–Amino–1–methylquinolinium iodide; the 159.09 Da cation is the species observed by ESI–MS
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PURITY · RP-HPLC, AREA %
99.60%
Specification ≥ 99.0% • main peak at 10.40 min

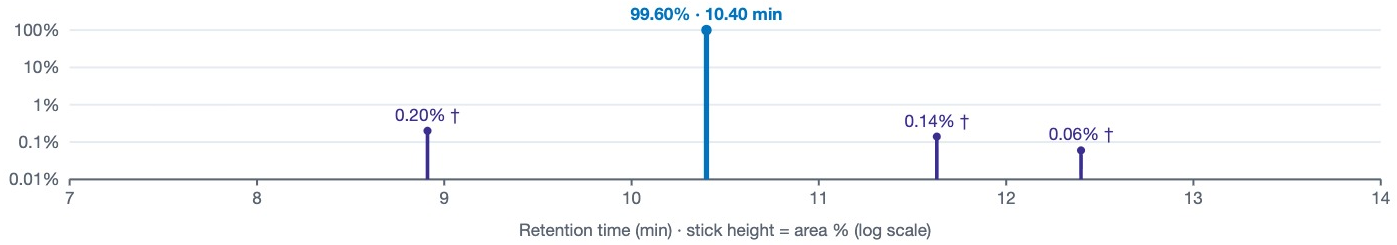
IDENTITY · OBSERVED MASS
159.08 Da
Theoretical cation 159.09 Da • −0.01 Da (63 ppm)

OVERALL CONCLUSION
PASS
Meets every specification for the tests performed

TEST	METHOD	SPECIFICATION	RESULT	CONCLUSION
Identity (mass)	LC-MS, ESI positive	Theoretical ± 1.0 Da	159.08 Da	**PASS**
Purity	RP-HPLC, UV 254–306 nm, area%	≥ 99.0%	99.60%	**PASS**
Largest impurity	RP-HPLC, area%	≤ 1.0%	0.20% (RT 8.91)	**PASS**
Water content	Karl Fischer	≤ 5.0%	1.45%	**PASS**
Bacterial endotoxin	LAL, kinetic	≤ 5.0 EU/mg	0.079 EU/mg	**PASS**
Sterility	USP <71>, 14-day	No growth	No growth	**PASS**

1 HPLC CHROMATOGRAM

Data file: PL-2610-002-HPLC.raw · Column C18, 150 × 4.6 mm · UV 254–306 nm



Peak plot drawn from the integrated peak table (area %, log scale); it is not the instrument trace, which is retained in PL-2610-002-HPLC.raw. † Nominal reference retention time for the assigned impurity; the main-peak RT is observed in this lot.

For laboratory research use only. Not for human or veterinary use.

2 HPLC METHOD · PL-2610-002-HPLC.RAW

INSTRUMENT
Waters Alliance e2695

DATA SYSTEM
Empower 3

DETECTOR
UV absorbance

DETECTION WAVELENGTH
254–306 nm

COLUMN
C18, 150 × 4.6 mm, 3.5 µm

MOBILE PHASE A
0.1% TFA in water

MOBILE PHASE B
0.1% TFA in MeCN

GRADIENT
5–95% B over 25 min (linear)

FLOW RATE
1.0 mL/min

COLUMN TEMPERATURE
40 °C

INJECTION VOLUME
10 µL

3 GRADIENT PROGRAM

TIME (MIN)	% A	% B
0.0	95	5
25.0	5	95

4 PEAK TABLE

PEAK	RT (MIN)	AREA	AREA %
1	8.91 †	—	0.20
2	**10.40**	**—**	**99.60**
3	11.63 †	—	0.14
4	12.40 †	—	0.06
Total		—	100.00

Peaks: 1 related substance a; 2 main peak (5-Amino-1MQ); 3 related substance b; 4 related substance c · Area % from the integrated peak table (absolute areas are not part of the lot-release export) · † nominal reference RT for the assigned impurity · Purity = main peak area ÷ total integrated area × 100, to two decimals; main peak shaded.

5 IDENTITY BY MASS SPECTROMETRY

INSTRUMENT
Waters SQD

IONIZATION / MODE
ESI, positive

REFERENCE M/Z (ION)
159.09 [M]+

DECONVOLUTED MASS
159.08 Da

THEORETICAL MASS
159.09 Da (cation)

DIFFERENCE
−0.01 Da (63 ppm)

DATA FILE
PL-2610-002-MS.d

ACCEPTANCE
Within ± 1.0 Da

6 ADDITIONAL TESTS

TEST	PERFORMED BY	DATE	REPORT / FILE
Water content (Karl Fischer)	PrymaLab Analytical	2026-10-02	—
Endotoxin (LAL, kinetic)	PrymaLab Analytical	2026-10-02	—
Sterility (USP <71>, day-14 read-out)	PrymaLab Analytical	2026-10-16	—

A test with no row here was not performed on this lot. Outside-laboratory reports, when used, are attached and named below.

7 REVIEW AND APPROVAL

D. Reynolds
Analyst · performed the testing
Date: 2026-10-16

S. Calloway
Reviewer · checked against raw data
Date: 2026-10-16

M. Phelps
Lab Director · approved for release
Date: 2026-10-16

Raw data retained at: Empower 3, project PL-2610, archive PL-ARC-2026; 7 years. Outside laboratory reports attached: None

This certificate applies only to the lot named above and describes the units sampled from it; it is not a guarantee for any other lot. Results were obtained by PrymaLab LLC's own laboratory (PrymaLab Analytical) and are not an independent third-party test unless an outside report is attached. This copy is issued for Keystone, a distributor of the lot; the brand shown does not change the laboratory, the method or the results. Reference values (CAS, formula, theoretical mass, sequence) are literature values for the named compound. Authenticity: scan the QR code or enter certificate number PL-26-00125 and key 63PQ67AD at prymalab.net/testing/verify; any copy that does not match the record shown there is not a PrymaLab certificate. PrymaLab LLC products are supplied for laboratory research use only and not for human or veterinary use.