

Analytical information

Name: Quality Controlled Standard of Azaspiracid-5

Code: 02-AZA5

Batch: 24-001

General description:

Product Specification	
MOLECULAR FORMULA:	C ₄₆ H ₆₉ NO ₁₃
MOLECULAR WEIGHT:	844.039
MONOISOTOPIC MW	843.477
CAS NUMBER:	344422-51-1
SOURCE / HOST	Mussels [†]
CONCENTRATION:	(1.14 ± 0.05) µg / mL
PURITY:	≥ 98% [‡]
FORMULATION:	Liquid. In methanol.
SHIPPING:	SHIPPED ON ICE
LONG TERM STORAGE:	-20 °C
HAZARD:	See MSDS.

[†] The Azaspiracid-5 used in the preparation of this material was isolated from samples of mussels collected during outbreak in the coast of Ireland and purified via preparative HPLC-MS/MS. Finally, 0.5 mL aliquots of AZA5 solution were dispensed into 2-mL amber argon-filled glass ampoules, which were then flame sealed.

[‡] Analytical UPLC-MS/MS were used to quantify and check purity. This material presents a low level of Azaspiracid-5 isobaric analogues (1.4 %), tentative Azaspiracid-7 isomers (0.3%), tentative Azaspiracid-8 (0.2%), tentative Azaspiracid-9 (0.3%), tentative Azaspiracid-10 and other azaspiracid analogues at trace level (<0.1%).

Instructions for proper handling use: This material contains toxic material, and should be handled with care. Read MSDS before using. Material Safety Data sheet for information regarding 02-AZA5 is enclosed in the package. Use proper disposal methods.

Before opening an ampoule, it must be guaranteed that the content is a liquid and properly mixed to ensure homogeneity. Sample aliquots for analysis should be withdrawn at 15 °C to 25 °C immediately after opening the ampoules and should be processed without delay for the concentration value to be valid within the stated uncertainty. Ampoule should not remain open longer than five minutes due to solvent volatility and air contamination.

Instructions for appropriate conditions of storage: The original vial should be stored at temperatures below/at -20 °C (freezer) until use. Unopened ampoules should be stored upright under normal laboratory conditions inside the original container supplied.

Date of analysis:	September, 10 th 2024
Concentration of Azaspiracid-5	(1.14 ± 0.05) µg / mL

The figure displays five chromatograms showing the degradation of iAZA5 over time. The x-axis represents time in minutes (0.00 to 6.00), and the y-axis represents intensity (0 to 100).

- Top Left:** Chromatogram of iAZA5 (blue trace) with a major peak at 2.81 minutes. The y-axis is labeled from 0 to 100.
- Top Right:** Chromatogram of Tentative AZA8 (red trace) with a major peak at 2.92 minutes. The y-axis is labeled from 0 to 100.
- Middle Left:** Chromatogram of iAZA5 (blue trace) with a major peak at 2.81 minutes. The y-axis is labeled from 0 to 100.
- Middle Right:** Chromatogram of Tentative AZA10 (red trace) with a major peak at 2.81 minutes. The y-axis is labeled from 0 to 100.
- Bottom Left:** Chromatogram of iAZA5 (blue trace) with a major peak at 2.81 minutes. The y-axis is labeled from 0 to 100.
- Bottom Right:** Chromatogram of Tentative AZA7 + isomers (red trace) with a major peak at 2.81 minutes. The y-axis is labeled from 0 to 100.

Additional peaks are labeled in the bottom right chromatogram:

- 2.44 (red trace)
- 2.81 (red trace)
- 2.90 (red trace)
- 2.94 (red trace)
- 2.83 (red trace)
- 5.95 (red trace)

Legend:

- 14: MRM of 1 Channel ES+ TIC (AZA8) 3.99e3
- 13: MRM of 1 Channel ES+ TIC (AZA10) 1.54e4
- 12: MRM of 1 Channel ES+ TIC (AZA7) 3.89e3
- 11: MRM of 1 Channel ES+ TIC (AZA9) 8.65e3
- 7: MRM of 1 Channel ES+ TIC (AZA5) 2.38e6

Inquiries concerning this material should be directed to:

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02-AZA5, 24-001, rev.1, 09/10/2025