

CERTIFICATE OF ANALYSIS

1. Identification

Catalogue Number

Lot Number 2024-NKR-033

P755998

Product Name

L-Proline-13C5,15N

Structure

Synonyms

(-)-2-Pyrrolidinecarboxylic Acid-13C5,15N; (-)-Proline-13C5,15N; (S)-(-)-Proline-13C5,15N; (S)-2-Carboxypyrrolidine-13C5,15N; (S)-2-Pyrrolidinecarboxylic Acid-13C5,15N; (-)-Proline-13C5,15N; 2-Pyrrolidinecarboxylic Acid-13C5,15N; L-(-)-Proline-13C5,15N; L-Pyrrolidine-2-carboxylic Acid-13C5,15N; NSC 46703-13C5,15N; Proline-13C5,15N; Proline-13C5,15N; Proline-13C5,15N; NSC 46703-13C5,15N; Proline-13C5,15N; NSC 46703-13C5,15N; Proline-13C5,15N; Proline-13C5,15

CAS Number

Solubility

N/A

Molecular Formula

Water (Slightly)

Source of Product

 $^{13}C_5H_9^{15}NO_2$

N/A

Molecular Weight

Purity >95%

121.09

2. Warnings

Hygroscopic

Shipping Condition

This Product Is Stable To Be Shipped At Room

Temperature

Long Term Storage Conditions

-20°C, Hygroscopic

3. Analytical Information

<u>Tests</u>	<u>Specifications</u>	Results
Appearance	White to Off-White Solid	Off-White Solid
NMR	Conforms to Structure	Conforms
C NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 49.25, %H: 7.36, %N: 11.71
HPLC Purity	>95%	99.88% (ELSD)
MS	Conforms to Structure	Conforms
Isotopic Purity	>95%	>99.9%

Additional Information

Normalized Intensity: ${}^{13}C_0 = 0.00\%$, ${}^{13}C_1 = 0.00\%$, ${}^{13}C_2 = 0.00\%$, ${}^{13}C_3 = 0.00\%$, ${}^{13}C_4 = 0.00\%$, ${}^{13}C_5 = 0.00\%$, ${}^{13}C_6 = 100.00\%$

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed.

The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed by C of A Approved by Reviewed by **Retest Date Test Date** Play 3/22/2024 3/20/2028

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