

CERTIFICATE OF ANALYSIS

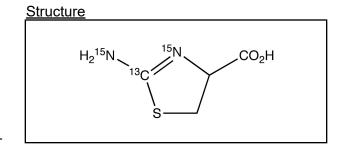
1. Identification

Product Name

rac 2-Aminothiazoline-4-carboxylic Acid-13C,15N2

<u>Synonyms</u>

2-Amino-4,5-dihydro-4-thiazolecarboxylic Acid-13C,15N2; 2-Aminothiazoline-4-



CAS Number Solubility

1346599-59-4 Methanol (Slightly), Water

(Sparingly)

Molecular Formula Source of Product

C₃¹³CH₆¹⁵N₂O₂S Synthetic

Molecular Weight Purity
149.15 >95%

Shipping Condition

This Product Is Stable To Be Shipped At Room

Temperature

Long Term Storage Conditions

4°C

2. Warnings

Not Determined

3. Analytical Information

<u>Tests</u>	<u>Specifications</u>	Results
Appearance	White to Off-White Solid	White to Off-White Solid
NMR	Conforms to Structure	Conforms
C NMR	Conforms to Structure	Conforms
HPLC Purity	>95%	99.87% (220 nm)
MS	Conforms to Structure	Conforms
Isotopic Purity	>95%	>99.9%
Specific Rotation	Report Result	0.0° (c = 0.2, Water)

Additional Information

Normalized Intensity: $d_0 = 0.00\%$, $d_1 = 0.00\%$, $d_2 = 0.00\%$, $d_3 = 100.00\%$

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 Reviewed by C of A Approved by Test Date Retest Date

Southwark Approved by Test Date 7/9/2022 7/7/2029

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