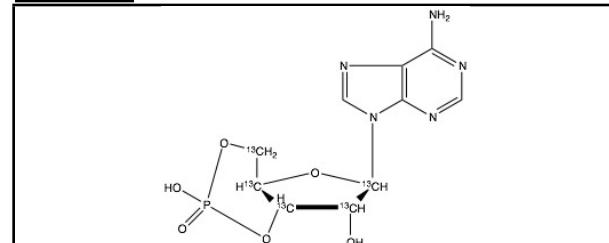


CERTIFICATE OF ANALYSIS**1. Identification**

Catalogue Number A280457 Lot Number 20-XDD-108-1

Product Name
Adenosine-3',5'-cyclic-13C5 Monophosphate

StructureSynonyms

Adenosine Cyclic-13C5 3',5'-(Hydrogen Phosphate); 3',5'-AMP-13C5; Adenosine-13C5 3',5'-Phosphoric Acid; Cyclic 3',5'-AMP-13C5; Cyclic 3',5'-Adenosine-13C5 Monophosphate; Cyclic AMP-13C5; cAMP-13C5; Adenosine Cyclic-13C5 3',5'-(Hydrogen Phosphate); 3',5'-AMP-13C5; Adenosine-13C5 3',5'-Phosphoric Acid; Cyclic 3',5'-AMP-13C5; Cyclic 3',5'-Adenosine-13C5 Monophosphate;

CAS Number

N/A Solubility
DMSO (Slightly), Methanol (Slightly), Water (Slightly)

Shipping Condition

This Product Is Stable To Be Shipped At Room Temperature

Molecular Formula

13C5 C5 H12 N5 O6 P

Source of Product

Synthetic

Long Term Storage Conditions

-20°C, Hygroscopic

Molecular Weight

334.17 Purity
>95%

2. Warnings

Hygroscopic

3. Analytical Information

<u>Tests</u>	<u>Specifications</u>	<u>Results</u>
Appearance	White to Off-White Solid	White to Off-White Solid
NMR	Conforms to Structure	Conforms
C NMR	Conforms to Structure	Conforms
P NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 34.26, %H: 3.87, %N: 20.07
HPLC Purity	>95%	97.45% (260 nm)
MS	Conforms to Structure	Conforms
Isotopic Purity	>95%	98.9%
Specific Rotation	Report Result	-45.6° (c = 0.1, Water)

Additional Information

Normalized Intensity: $^{13}\text{C}_0 = 0.03\%$, $^{13}\text{C}_1 = 0.02\%$, $^{13}\text{C}_2 = 0.03\%$, $^{13}\text{C}_3 = 0.14\%$, $^{13}\text{C}_4 = 5.10\%$, $^{13}\text{C}_5 = 94.68\%$

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of $\pm 2\%$. 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

<u>Reviewed by</u>	<u>Reviewed by</u>	<u>C of A Approved by</u>	<u>Test Date</u>	<u>Retest Date</u>
			6/1/2023	5/30/2027

Henry Tieu
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