



CERTIFICATE OF ANALYSIS

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1. Identification

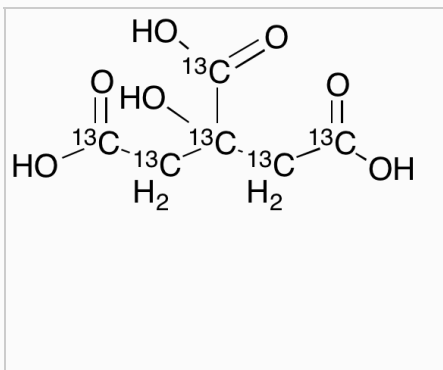
Catalogue Number: C521004

CAS Number: 287389-42-8

Product: Citric Acid-¹³C₆

Synonym: 2-Hydroxy-1,2,3-Propane-1,2,3-¹³C₃-tri(carboxylic-¹³C) Acid

Structure:



Molecular Formula:

¹³C₆H₈O₇

Molecular weight:

198.08

Source of Product:

N/A

Solubility:

DMSO (Slightly), Water (Slightly), Methanol (Slightly)

Lot Number: 2023-GHZ-081

Purity: 98%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: 4°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	White to Pale Brown Solid	Pale Beige to Pale Brown Solid
NMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 35.73, %H: 4.08
HPLC Purity	Report Result	99.73% (ELSD)
MS	Conforms to Structure	Conforms
Isotopic Purity	>95%	99.2%
C NMR	Conforms to Structure	Conforms

Additional Information:

Normalized Intensity: ¹³C₀ = 0.03%, ¹³C₁ = 0.07%, ¹³C₂ = 0.04%, ¹³C₃ = 0.42%, ¹³C₄ = 1.48%, ¹³C₅ = 0.00%, ¹³C₆ = 97.97%

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

Henry Tieu

Toni Rantanen

Chanell Chu

3/2/2023

2/28/2027