



CERTIFICATE OF ANALYSIS

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1. Identification

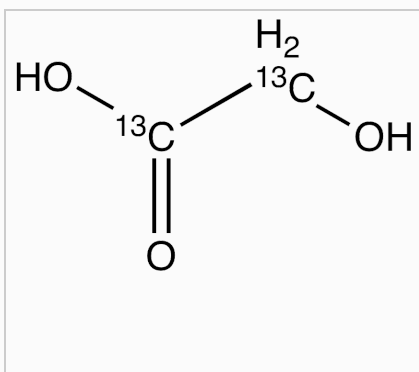
Catalogue Number: G645602

CAS Number: 111389-68-5

Product: Glycolic Acid- $^{13}\text{C}_2$

Synonym: 2-Hydroxyacetic Acid- $^{13}\text{C}_2$; 2-Hydroxyethanoic Acid- $^{13}\text{C}_2$; GlyPure- $^{13}\text{C}_2$; GlyPure 70- $^{13}\text{C}_2$; GlyPure 99- $^{13}\text{C}_2$; Glycocide- $^{13}\text{C}_2$; Hydroxyacetic Acid- $^{13}\text{C}_2$; Hydroxyethanoic Acid- $^{13}\text{C}_2$; NSC 166- $^{13}\text{C}_2$; α -Hydroxyacetic Acid- $^{13}\text{C}_2$;

Structure:



Molecular Formula:

$^{13}\text{C}_2\text{H}_4\text{O}_3$

Molecular weight:

78.04

Source of Product:

N/A

Solubility:

DMSO (Slightly), Methanol (Slightly)

Lot Number: 2023-ZEA-084

Purity: 98%

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

Storage Condition: 4°C, Hygroscopic

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	White to Off-White Solid	Off-White Solid
NMR	Conforms to Structure	Conforms
HPLC Purity	Report Result	96.61% (205 nm)
MS	Conforms to Structure	Conforms
C NMR	Conforms to Structure	Conforms
Isotopic Purity	>95%	98.0%
Elemental Analysis	Conforms	%C: 31.08, %H: 5.11

Additional Information:

Normalized Intensity: $^{13}\text{C}0 = 1.39\%$, $^{13}\text{C}1 = 1.20\%$, $^{13}\text{C}2 = 97.41\%$

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

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Henry Tieu	Toni Rantanen	Chanell Chu	3/16/2023	3/14/2027