



CERTIFICATE OF ANALYSIS

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1. Identification

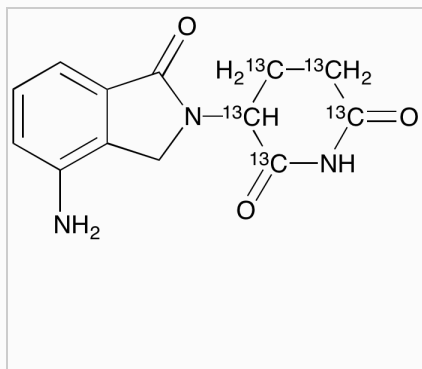
Catalogue Number: L328002

CAS Number: 1219332-91-8

Product: rac Lenalidomide-13C5

Synonym: 3-(4-Amino-1,3-dihydro-1-oxo-2H-isoindol-2-yl)-2,6-piperidinedione-13C5; 1-Oxo-2-(2,6-dioxopiperidin-3-yl)-4-aminoisoindoline-13C5; CC-5013-13C5;

Structure:



Molecular Formula:

$C_8^{13}C_5H_{13}N_3O_3$

Molecular weight:

264.22

Source of Product:

Synthetic

Solubility:

DMSO (Slightly), Methanol (Very Slightly)

Lot Number: 9-RAJ-37-2

Purity: 98%

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

Storage Condition: -20°C, Inert atmosphere

2. Warning

Warning 1: Not Determined

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	Pale Yellow to Light Yellow Solid	Pale Yellow to Light Yellow Solid
NMR	Conforms to Structure	Conforms
MS	Conforms to Structure	Conforms
Isotopic Purity	>95%	98.7%
Specific Rotation	Report Result	-0.4° (c = 0.2, DMSO)
HPLC Purity	>95%	98.36% (235 nm)

Additional Information:

TLC Conditions: SiO₂; Dichloromethane : Methanol : Ammonium Hydroxide = 8 : 2 : 0.1; Visualized with UV and AMCS; Single Spot, R_f = 0.70. Normalized Intensity: 13C0 = 0.24%, 13C1 = 0.19%, 13C2 = 0.04%, 13C3 = 0.43%, 13C4 = 3.71%, 13C5 = 95.39%

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
Nicole Yip	Toni Rantanen	My Nguyen	10/17/2019	10/15/2026