



CERTIFICATE OF ANALYSIS

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1. Identification

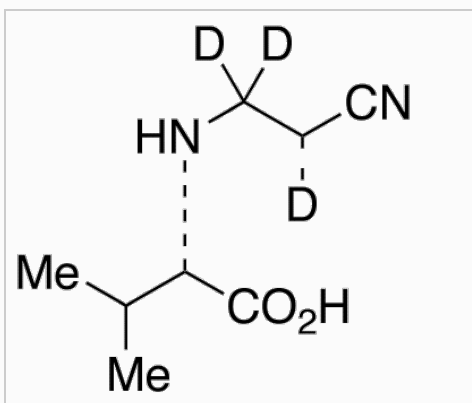
Catalogue Number: C981082

CAS Number: 160210-22-0

Product: N-(2-Cyanoethyl-d3)-L-valine

Synonym: N-(2-Cyanoethyl-1,1,2-d3)valine;

Structure:



Molecular Formula:

$C_8H_{11}D_3N_2O_2$

Molecular weight:

173.23

Source of Product:

Synthetic

Solubility:

Aqueous Acid (Slightly),
DMSO (Slightly, Heated),
Pyridine (Slightly, Heated)

Lot Number: 3-JWA-24-2

Purity: 98%

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

Storage Condition: -20°C

2. Warning

Warning 1: Not Determined

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Isotopic Purity	>95%	95.4%
MS	Conforms to Structure	Conforms
NMR	Conforms to Structure	Conforms
Specific Rotation	Report Result	+28.9° (c = 0.1, 5N HCl)
Appearance	White to Off-White Solid	White Solid
FT-IR	Conforms to Structure	Conforms
HPLC Purity	>95%	100.00% (ELSD)

Additional Information:

Normalized Intensity: d0 = 0.00%, d1 = 0.03%, d2 = 13.78%, d3 = 86.19%

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
Eric Beaton	Toni Rantanen	My Nguyen	5/28/2020	5/26/2030