

CERTIFICATE OF ANALYSIS

The Power to Question

Catalog Number: sc-475585 Lot Number: SAMPLE

 $\begin{array}{lll} \mbox{Product Name:} & \mbox{L-Valine-13C5,15N} \\ \mbox{CAS Number:} & 202407-30-5 \\ \mbox{Molecular Formula:} & \mbox{1}_{3}\mbox{C}_{5}\mbox{H}_{1115}\mbox{NO}_{2} \\ \end{array}$

Molecular Weight: 123.1

Test	Specification	Result
Appearance		White to off-white solid
Identification (¹ H-NMR)		Consistent with structure
Identification (¹³ C-NMR)		Consistent with structure
Identification (Mass Spectrometry)		Consistent with structure
Isotopic Purity		99.1%
Purity (TLC)		98%
Atmosphere		Air
Melting Point		> 242.0°C (subl.)
Solubility		Aqueous Acid, Water
Specific Rotation		+25.6° (c = 0.12, 5N HCl)
Carbon Content	48.79%	48.99%
Hydrogen Content	9.01%	9.47%
Nitrogen Content	11.40%	11.62%

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