

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2026-02-27 15:19:12  
Date of Next Testing: 2029-02-26 15:19:12  
Product Name: **L-Glutamine-<sup>13</sup>C<sub>5</sub>**  
CAS Number: 184161-19-1  
Specifications & Purity: Moligand™, ≥98 atom% <sup>13</sup>C, ≥95%  
Lot #: D23191395  
SKU #: **L471811**  
Version: **1**  
Analysis #: **656105**  
Storage Temperature: Store at 2-8°C

Parameter	Limit Values	Result
Isotopic purity( <sup>13</sup> C)	98-100 (atom%)	98.00 atom%
Water by Karl Fischer	0-0.5 (%)	0.40 %
Chemical Purity	95-100 (%)	95.00000 %
Appearance(L471811)	White to Off-White Solid	White to off-white solid
NMR Spectrum 1H	Conforms to Structure	Conforms to Structure
Carbon NMR Spectrum	conforms to structure	Conforms to Structure



John Su  
QA & QC Manager