

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2026-01-26 13:40:27  
 Date of Next Testing: 2029-01-25 13:40:27  
 Product Name: **Pyruvic acid (1-<sup>13</sup>C)**  
 CAS Number: 99124-30-8  
 Specifications & Purity: ≥99 atom% <sup>13</sup>C, ≥99%  
 Lot #: A2623288  
 SKU #: **P465462**  
 Version: **1**  
 Analysis #: **645269**  
 Storage Temperature: Protected from light, Store at -20°C, Argon charged

| Parameter                         | Limit Values                                | Result                                      |
|-----------------------------------|---------------------------------------------|---------------------------------------------|
| Isotopic purity( <sup>13</sup> C) | 99-100 (atom%)                              | 99.90 atom%                                 |
| Purity(HPLC area)                 | 99-100 (%)                                  | 99.90 %                                     |
| Appearance(P465462)               | Colorless to yellow and yellow-green liquid | Colorless to yellow and yellow-green liquid |
| NMR Spectrum <sup>1</sup> H       | Conforms to Structure                       | Conforms to Structure                       |
| Carbon NMR Spectrum               | Conforms to structure                       | Conforms to Structure                       |



John Su  
QA & QC Manager