

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-12-04 11:06:20  
Date of Next Testing: 2025-12-03 11:06:20  
Product Name: **Ethyl 4,4-difluoroacetoacetate**  
CAS Number: 352-24-9  
Specifications & Purity: 98%  
Lot #: L2301230  
SKU #: **E137193**  
**Analysis: 296193**  
Storage Temperature: Store at 2-8°C

| Parameter                           | Limit Values                     | Result                           |
|-------------------------------------|----------------------------------|----------------------------------|
| Purity(GC)                          | 98-100 (%)                       | 98.33 %                          |
| Refractive index n <sub>20</sub> /D | 1.404-1.409                      | 1.40                             |
| Appearance (E137193)                | Colorless to light yellow liquid | Colorless to light yellow liquid |
| Proton NMR spectrum                 | Conforms to structure            | Conforms to Structure            |



John Su  
QA & QC Manager