

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-01-30 16:12:11
 Date of Next Testing: 2028-01-29 16:12:11
 Product Name: **L-(-)-Malic acid**
 CAS Number: 97-67-6
 Specifications & Purity: for cell culture, for insect cell culture
 Lot #: A2424101
 SKU #: **M119455**
 Version: **1**
 Analysis #: **315455**
 Storage Temperature: Protected from light, Argon charged, Desiccated

Parameter	Limit Values	Result
Purity (Titration by NaOH)	97.5-102.5 (%)	99.65 %
Specific Rotation $[\alpha]_{20/D}(c=8.5 \text{ in H}_2\text{O})$	-2.6--1.6 (°)	-1.79 °
Appearance (M119455)	White Powder or Crystals	White Powder or Crystals
Solubility in H ₂ O , Colorless, clear to slightly hazy, 100 mg/ml	pass	Pass
Cell Culture Test	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure
Insect cell culture test	pass	Pass



John Su
QA & QC Manager