

Certificate of Analysis

Product Name: L-Malic acid, disodium salt
Cat #: M-100
CAS #: 138-09-0
Lot #: Lot Specific
Retest Date: Lot Specific
Storage:[†] Store at room temperature.

Test	Specs	Results
Color	white to off-white	white
Form	crystalline powder	crystalline powder
Color of Solution (1% in water)	colorless	colorless
Turbidity (1% in water)	max. 4.0 NTU	0.2 NTU
Water Content (K. Fischer)	8.0 to 10.0%	9.4%
Melting Point	150 to 154°C	153°C
Perchloric Acid Titration (0.1 mol/L) (on dry matter)	98.0 to 102.0%	99.0%
Purity (HPLC)	min. 98.0 area-%	99.0 area-%
Specific Optical Rotation [alpha] _D (c = 1 in water, 20°C)	-9.5 to -7.5	-8.0
FT-IR Spectrum	corresponds to reference spectrum	corresponds

* Gold Biotechnology, Inc. provides this Certificate of Analysis in good faith and to the best of its knowledge. It should not be substituted for the user's own raw material quality control. This material is for laboratory use only.

† Storage at listed temperature applies to retest date (if shown) or two years from purchase date. Check label for long term storage conditions, which may extend the product beyond the retest date and/or greater than two years from purchase.

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