



Certificate of Analysis

1 M D-(+)- Trehalose Solution

Catalog No. TS1M -500

Lot No. TS0416412

Expiration Date: 12 December, 2014

DESCRIPTION

Life Sciences' Advanced Technologies' Trehalose solutions are prepared from molecular biology grade trehalose, a high molecular-weight, non-reducing disaccharide produced from cassava starch through a proprietary bioconversion process. This highly purified preparation is uniquely suitable as a buffer component in many molecular biology applications, including isothermal and temperature-cycled nucleic acid amplification. It also imparts physical and chemical stability to nucleic acid modifying enzymes, other biomolecules, and intact cellular structures while at ambient or ultra-cold temperatures as well as when freeze-dried.

There are no ingredients or reagents of animal origin used in the bioconversion or purification of this product.

<u>CRITERIA</u>	<u>SPECIFICATION</u>	<u>RESULTS</u>
Molarity	0.97-1.03 M	1.006 M
Refractive index	1.383 ±0.002	1.383
Appearance	Clear, colorless solution	Passes
Purity	1 peak ≥ 99% by HPLC	99.32%
Conductivity	< 5 µS/cm	1.4 µS/cm
RNase/DNase	Negative	Negative
Endotoxin	< 0.25 EU/mL	<0.088 EU/mL
Trace elements	<5 ppm of Co, Cd Cu, Fe Mn, Ni, Pb, Zn	<5ppm of each
	As - ≤ 1 ppm	Passes
	Ba - ≤ 10 ppm	Passes
	Ca - ≤ 20 ppm	Passes
Sterility	0 CFU from ≥ 300 mL	Passes
pH of solution	5.0-6.7	5.6
Storage	2-6°C	_____

Note: 2-6°C Storage is recommended as a way to minimize evaporation that can produce a shift in molarity over time. In the event that crystals form in the solution, bring the solution to room temperature and agitate to redissolve the crystals.

Approved by: _____
Quality Control

Date: _____

Approved by: _____
Production

Date: _____