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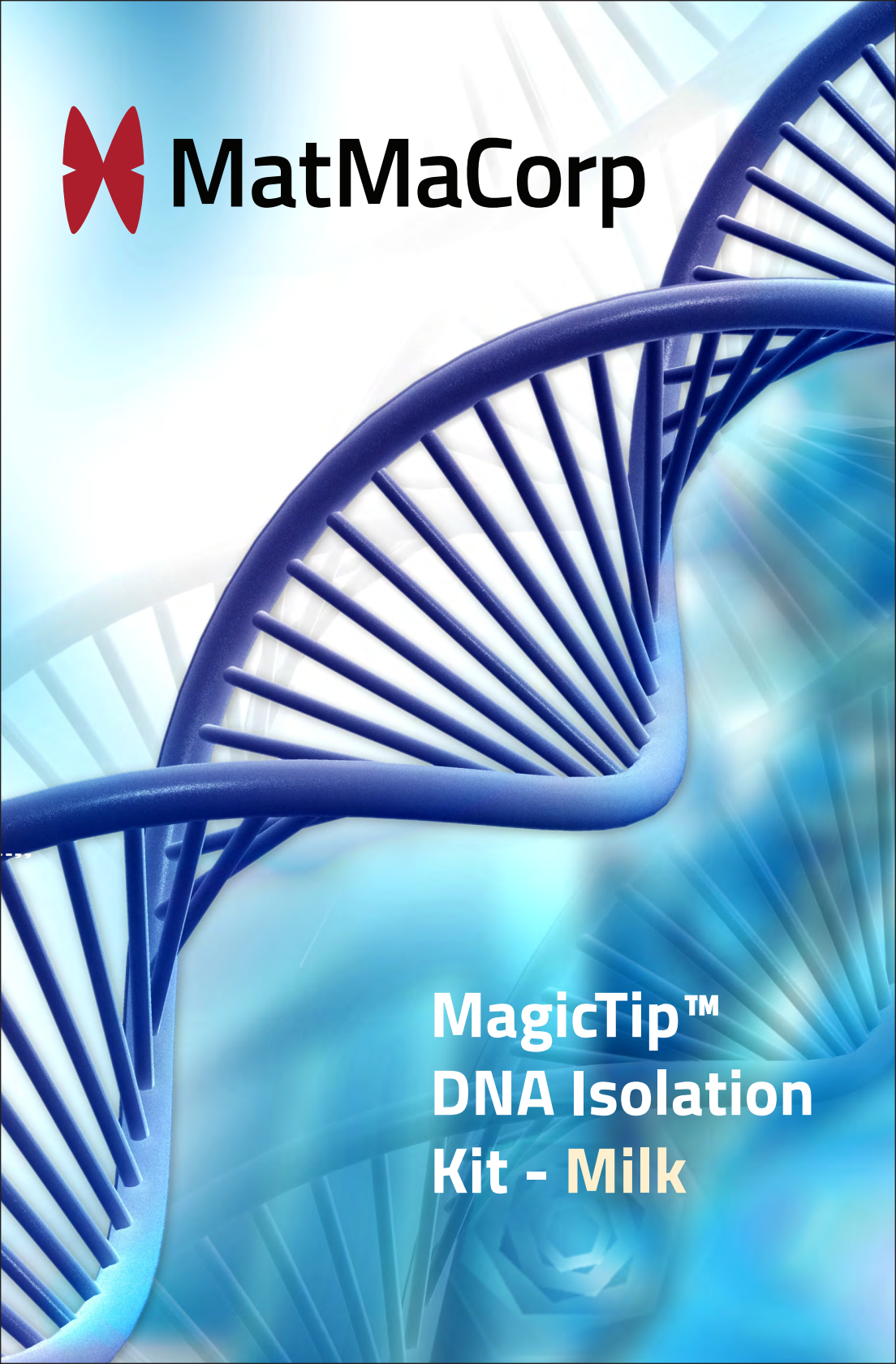

MagicTip™ DNA Isolation Kit - Milk

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Manual: 1st Edition - November 2018

Introduction

The MagicTip™ Milk DNA Isolation Kit offers a quick and simple procedure that requires only 1mL of fresh milk. Under the right conditions, DNA from the sample is bound to the MagicTip™. The binding is reversed in the elution step yielding DNA for use in MatMaCorp's Solas 8™ or other applications such as PCR. The simplicity of this system allows the kit to be used in a variety of settings inside or outside of the laboratory.

This kit can process samples in about 15 minutes. No special equipment or skills are necessary to use this kit. All reagents needed are supplied.

Kit storage

The MagicTip™ Milk DNA Isolation kit can be stored at room temperature. Exposing components of this kit to high temperatures (above 90°C), and freezing should be avoided. Use of this kit is not recommended after the expiration date.

Disclaimer

This product has been developed and designed for research purposes only. It is not intended for diagnostic use. Material Safety Data Sheets (MSDS) for all MagicTip™ Isolation Kits can be found at *www.matmacorp.com.*

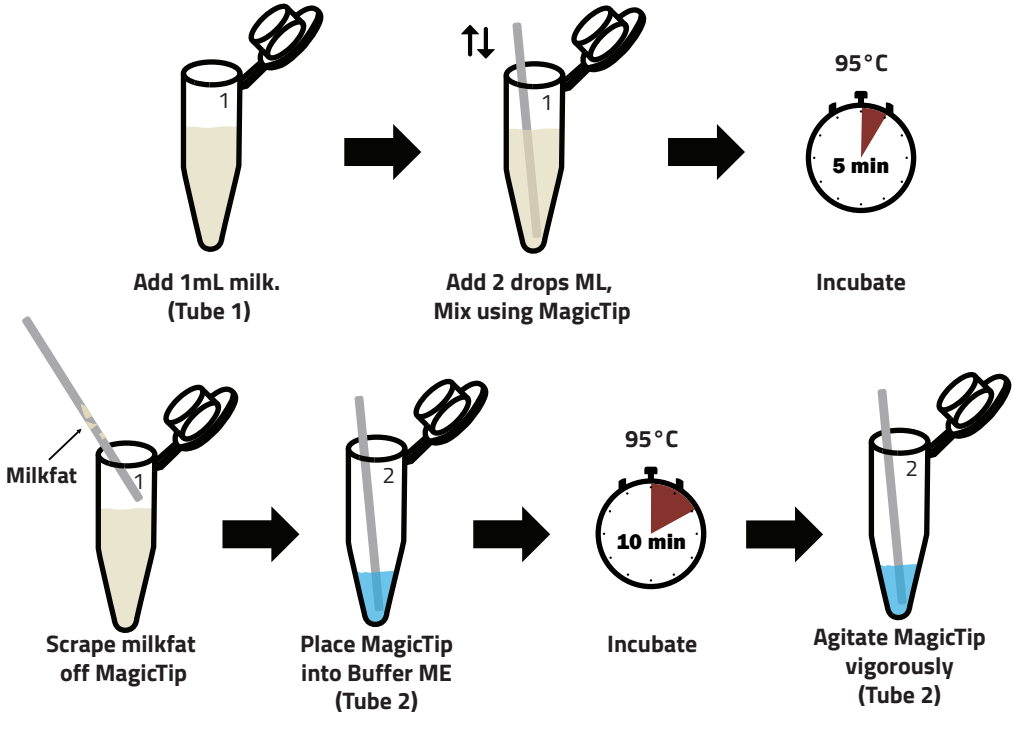
NOTE: PLEASE READ THIS ENTIRE MANUAL INCLUDING THE DETAILED PROCEDURE, BEFORE BEGINNING THE PROTOCOL

Kit Contents

100 of each:
Tube 1
Tube 2
MagicTips™

1 of each:
Dropper bottle with Lysis Buffer ML
Dropper bottle with Elution Buffer ME
Disposable tube rack

Overview



MagicTip™ Milk Kit Protocol

This protocol has been optimized to isolate DNA from fresh milk samples. For the isolation of DNA from other sample types, please use the appropriate MagicTip™ kit. Although the procedure below is for a single sample, multiple samples may be processed together if desired.

Materials needed (supplied by user):

- A heat block (or other heat source) capable of 95°C and compatible with 1.5mL Eppendorf centrifuge tubes.

Preparation:

1. One Tube 1 and one Tube 2 are needed for each sample; label this pair with the sample ID and place tubes in the paper tube rack provided.
2. Pour approximately 1mL of milk sample into Tube 1.
3. Place one drop of Elution Buffer ME into tube 2.
4. Repeat steps 1-3 for remaining samples.

NOTE: If you are using the Solas 8™ for DNA isolation, please refer to the appropriate protocol on the screen of the device. Alternatively, you can find a PDF copy of the protocol on the MagicTip™ product page at *www.matmacorp.com*.

Procedure:

1. Place a fresh, unused MagicTip™ in tube 1 that already contains 1mL of milk sample.

   NOTE: Gloves are recommended to prevent contamination. It is important that the end of the MagicTip™ that is handled with bare fingers is not the end used for DNA binding. This MagicTip™ should remain in the tube during all steps until instructed otherwise.

2. Add 2 drops of Lysis Buffer ML to Tube 1.

3. Mix solution well for 5-6 seconds with the MagicTip™.

4. Heat tube 1 to 95°C for 5 minutes.

5. Remove tube 1 from heat and place in tube rack.

6. Spin MagicTip™ between fingers and remove it from Tube 1.

7. Gently scrape MagicTip™ against the rim of tube 1 to remove any visible material.

8. Place MagicTip™ into tube 2 containing Elution Buffer ME with the same sample ID. Tube 1 can now be discarded.

8. To elute DNA from MagicTip™, heat tube 2 for 10 minutes at 95°C.

9. Remove tube 2 from heat and immediately agitate MagicTip™ vigorously for 5-6 seconds to release DNA into the solution.

10. Discard MagicTip™.

11. DNA preparation is complete.

Troubleshooting

Problem	Cause	Solution
Low Yield	Too few cells in sample	Agitate or mix stock before removing 1mL sample Low somatic cell count is normal in healthy individuals
	Cells/DNA destroyed by homogenization or pasteurization	Use fresh, whole raw milk only.
Problem	**Cause**	**Solution**
Low Purity	Too much milkfat remains after washes	Scrape as much of the milkfat off the MagicTip™ as possible.
	Inaccurate volumes of Buffer ML or Buffer ME used	Ensure proper number of drops of each reagent are added.

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