



**MagicTip™
DNA Isolation
Kit - Buccal**

MagicTip™ DNA Isolation Kit - Buccal

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Patent Pending



Introduction

The MagicTip™ Buccal Cell DNA Isolation Kit offers a quick and simple procedure where the MagicTip™ is also used to collect fresh cells. Under the right conditions, DNA from lysed cells is bound to the MagicTip™. The binding is reversed in the elution step yielding DNA in about 5 minutes 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. No special equipment or skills are necessary to use this kit.

Kit storage

The MagicTip™ Buccal Cell kit can be stored at room temperature. Exposing components of this kit to high temperatures (above 90°C) or 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:

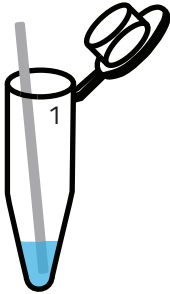
Dropper bottle with Lysis Buffer OL

Dropper bottle with Neutralizing Buffer ON

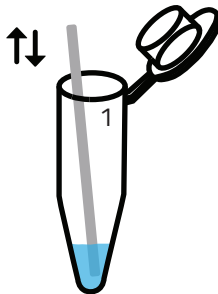
Dropper bottle with Elution Buffer OE

Disposable tube rack

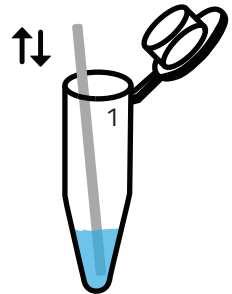
Overview



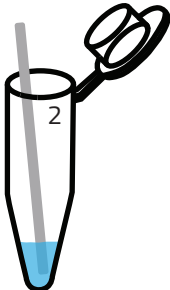
Add 1 drop OL.
Then, place MagicTip
with cells into tube 1.



Mix using MagicTip



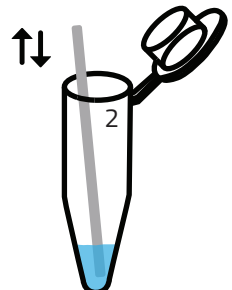
Add 1 drop
Buffer ON, mix.



Place MagicTip
into tube 2.



Incubate



Agitate MagicTip
vigorously



MagicTip™ Buccal Kit Protocol

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

Materials needed 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. Place one drop of Lysis Buffer OL into tube 1.
3. Place one drop of Elution Buffer OE 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.

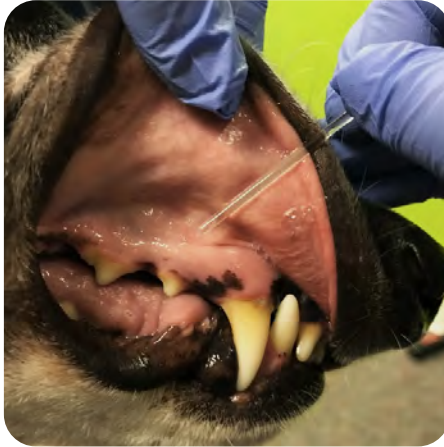


Procedure:

1. Collect buccal cell sample.

To collect fresh buccal cell samples: roll up the lip of the animal (as shown below) and firmly rub the side of the MagicTip™ along the length of the lip, twisting the MagicTip™ between the index finger and thumb as it rubs the lip. Repeat this action 2-3 times.

Caution: A strong lateral pressure on the MagicTip™ may cause breakage and injury to the animal.



2. Place the MagicTip™ with collected cell sample into tube 1 which contains lysis buffer OL.

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.

3. Agitate the MagicTip™ vigorously in tube 1 for 10 seconds to dislodge and lyse the buccal cells from the MagicTip™.
4. To allow DNA binding to the MagicTip™, add 1 drop of Neutralizing Buffer ON to tube 1 and mix the solution with the MagicTip™ for 6 seconds.
5. Gently spin the MagicTip™ 2 to 3 times between your fingers while in tube 1 to bind DNA, then place it into tube 2. Discard tube 1.



Procedure (continued):

6. To elute DNA from MagicTip™, heat tube 2 for 5 minutes at 95°C.
7. Remove tube 2 from heat and immediately agitate MagicTip™ vigorously for 5-10 seconds to release DNA into the solution.
8. Discard MagicTip™.
9. DNA preparation is complete.

Troubleshooting

Problem	Cause	Solution
Low Yield	Insufficient number of cells collected	Be sure to firmly rub against lip of animal and repeat the motion 2-3 times
	Incorrect temperature	Check that incubation temperature is correct before loading sample tubes onto heat source.
	Decreased elution	MagicTip™ not agitated vigorously enough in tube 2 following final incubation. Tube 2 should be incubated for at least 5 minutes at 95°C but can be incubated for up to 10 minutes for a slight increase in DNA yield.



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