

Preparing Buccal Swab Samples for DNA Purification

This Quick Protocol provides instructions for use of the Maxwell® RSC Buccal Swab DNA Kit to purify genomic DNA from buccal swab samples. For detailed instructions, including information on instrument setup and troubleshooting, please refer to the *Maxwell® RSC Buccal Swab DNA Kit Technical Manual #TM479*, available at: www.promega.com/protocols/

Materials to be Supplied by the User

- microcentrifuge
- benchtop vortex mixer
- pipettors and pipette tips for sample transfer into prefilled reagent cartridges
- buccal swabs (e.g., Puritan Medical Products Cat.# 25-806 1PD or 25-806 1PC)
- 1.5–2.0ml tubes for incubation of samples (e.g., ClickFit Microtube, 1.5ml [Cat.# V4741])
- heating block set at 56°C

The total yield of genomic DNA from buccal swab samples depends on the amount of cellular material contained on the swabs.

Sample Preparation:

1. Collect samples with a standard buccal swab collection procedure.
2. Assemble a Clearing Column/ClickFit Microtube for each sample.
3. Cut the head off the applicator stick. Add dried swab head to the Clearing Column/ClickFit Microtube.
4. In a separate tube, mix 300µl of Lysis Buffer + 30µl Proteinase K for each sample.
5. Add 330µl of Lysis Buffer/Proteinase K to each swab head, and close tube over the Clearing Column.

Note: If using tubes other than the recommended ClickFit Microtube (Cat.# V4741), the tube may not close.

6. Incubate for 20 minutes at 56°C.

Note: Some flowthrough from the column may be observed in the microtube after incubation. This is normal.

7. Centrifuge the Clearing Column/ClickFit Microtube with swab for 2 minutes at maximum speed.
8. Discard the Clearing Column and swab head.
9. Add flowthrough liquid to well #1 (the largest well) of the Maxwell® RSC cartridge.

Maxwell® RSC Buccal Swab DNA Kit

Instructions for Use of Product AS1640.



Quick Protocol

Maxwell® Automated DNA Purification

Cartridge Preparation

1. Place the cartridges to be used in the deck tray with well #1 (the largest well) facing away from the elution tube.
2. Press down on the cartridge to snap it into position. Carefully peel back the seal so that all plastic comes off the top of the cartridge. Ensure that all sealing tape and any residual adhesive are removed before placing the cartridge in the instrument.
3. Place one plunger in well #8 of each cartridge. Well #8 is the well closest to the elution tube.
4. Place an empty elution tube into the elution tube position for each cartridge. Add 50µl of Elution Buffer to the bottom of each elution tube.

Notes:

1. If Elution Buffer is on the side of the tube, the elution may be suboptimal.
2. Use only the Elution Tubes (0.5ml) provided with the kit; other tubes may be incompatible with supported Maxwell® Instruments.

Instrument Run on the Maxwell® Instruments

Follow the instrument run instructions in the *Maxwell® RSC Buccal Swab DNA Kit Technical Manual #TM479*.

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Additional protocol information in Technical Manual #TM479, available online at: www.promega.com

