Maxwell® RSC Cultured Cells DNA Kit

Instructions for Use of Product AS1620.

Promega

Quick Protocol

Preparing Cell Samples for DNA Purification

This Quick Protocol provides instructions for use of the Maxwell® RSC Cultured Cells DNA Kit with the Maxwell® RSC Instrument to purify genomic DNA from up to 5×10^6 tissue culture cells or 2×10^9 bacterial cells. For detailed instructions, including information on instrument setup and troubleshooting, please refer to the *Maxwell® RSC Cultured Cells DNA Kit Technical Manual* #TM477, available at: **www.promega.com/protocols/**

Materials to be Supplied by the User

- pipettors and pipette tips for sample transfer into prefilled reagent cartridges
- lysozyme when processing Gram-positive bacteria

The total yield of genomic DNA from cultured cell samples is variable and depends on the type of cell being used.

Tissue Culture Cells

Up to 5×10^6 tissue culture cells in a volume of up to 400µl of culture medium may be added to well #1 of the Maxwell® RSC cartridge.

Gram-Negative Bacterial Cells

Up to 2×10^9 cells may be added to well #1 of the Maxwell® RSC cartridge resuspended in up to 400µl of culture medium.

Gram-Positive Bacterial Cells

1. Harvest up to 2×10^9 cells by centrifugation.
2. Resuspend cell pellet in 300µl of TE Buffer.
3. Add 100µl of lysozyme (resuspended at 25mg/ml).
4. Incubate for 30 minutes at 37°C.

Maxwell® RSC Automated DNA Purification

Cartridge Preparation

1. Place the cartridge to be used in the deck tray with the printed side facing away from the elution position, which is the numbered side of the tray.
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.

   Note: If you are processing fewer than 16 samples, center the cartridges on the deck tray.
3. Transfer cultured cell sample to well #1 of each cartridge and **thoroughly mix the cultured cell samples into the lysis buffer by pipetting at least 10 times**. (Well #1 is the well closest to the printed side and furthest from the elution tube.)
4. Place one plunger in well #8 of each cartridge. Well #8 is the well closest to the elution tube.
5. Place an empty elution tube into the elution tube position for each cartridge. Add 100µl of Elution Buffer to the bottom of each elution tube.

   Note: Use only the Elution Tubes (0.5ml) provided with the kit; other tubes may be incompatible with the Maxwell® RSC Instrument.

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Instrument Run on the Maxwell® RSC Instrument (Cat.# AS4500)

1. Refer to the *Maxwell® RSC Instrument Operating Manual* #TM411 for detailed information. To run the RSC Cultured Cells DNA protocol, the Maxwell® RSC Cultured Cells DNA method must be installed on your instrument. The method is available at: **www.promega.com/resources/tools/maxwellrscmethod/**. See the *Maxwell® RSC Methods Installation Technical Manual* #TM435 for instructions.
2. Follow the instrument run instructions in the *Maxwell® RSC Cultured Cells DNA Kit Technical Manual* #TM477.

Additional protocol information is in Technical Manual #TM477, available online at: **www.promega.com**

