

# Maxwell® RSC Buffy Coat DNA Kit

Instructions for Use of Product AS1540.



Quick Protocol

## Preparing Buffy Coat Samples for DNA Purification

This Quick Protocol provides instructions for use of the Maxwell® RSC Buffy Coat DNA Kit with Maxwell® Instruments to purify genomic DNA from buffy coat prepared from whole blood. For detailed instructions, including information on instrument setup and troubleshooting, please refer to the *Maxwell® RSC Buffy Coat DNA Kit Technical Manual #TM464*, available at: [www.promega.com/protocols/](http://www.promega.com/protocols/)

### Materials to be Supplied by the User

- pipettors and pipette tips for sample transfer

The total yield of genomic DNA from buffy coat samples depends on the sample volume and number of white blood cells/ml. Each Maxwell® RSC Cartridge supplied in the Maxwell® RSC Buffy Coat DNA Kit is designed to purify genomic DNA from 50–250µl of buffy coat prepared from whole blood, assuming an average number of white blood cells in the range of  $4 \times 10^6$  to  $1.2 \times 10^7$  cells/ml of whole blood.

**Note:** Buffy coats may be prepared from whole blood samples collected in EDTA, ACD or heparin tubes. These samples may be either fresh or frozen. Frozen samples should be thawed before processing.

## Maxwell® Automated DNA Purification

### Cartridge Preparation

1. Place the cartridge to be used in the deck tray with well #1 (the largest well in the cartridge) 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.
3. Transfer 50–250µl of each buffy coat sample to well #1 (the largest well) of each cartridge and thoroughly mix the samples into the lysis buffer by pipetting at least 10 times.
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 200µl 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 supported Maxwell® Instruments.

### Instrument Run on the Maxwell® Instruments

Follow the instrument run instructions in the *Maxwell® RSC Buffy Coat DNA Kit Technical Manual #TM464*.

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Additional protocol information is in Technical Manual #TM464, available online at: [www.promega.com](http://www.promega.com)

