

BenchPro[®] 2100 MaxiCard[™] Plasmid Purification Instrument

Cat. no. MC1001

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Part no. 25-1061 MAN0002695

QUICK
REFERENCE
CARD

Instructions for using the BenchPro[®] 2100 instrument for maxiprep plasmid preparation are described below. For detailed instructions, see the manual supplied with the instrument or download the manual from www.invitrogen.com.

Growing *E. coli* Culture

Use high-copy plasmid (size ranging from 3 kb to 20 kb). Grow transformed *E. coli* cells overnight in LB (Luria-Bertani) medium with the appropriate antibiotic. The bacterial culture should have a cell density of approximately 10^9 cells/mL or an optical density of 2.0–2.4 at 600 nm (OD_{600}). Use a bacterial culture in transition between exponential phase and stationary phase.

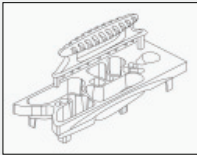
Starting BenchPro[®] 2100

1. Install the BenchPro[®] 2100 instrument as described in the user manual. Press the power switch (located on the left side of the unit) to turn **ON** the BenchPro[®] 2100 instrument.
2. After the startup screen is displayed, press the **Start** function key to go to the setup screen. Press the **Setup** function key to set up the instrument for 1 maxiprep purification. To perform 2 maxiprep purifications, perform the indicated step twice.

Performing Maxiprep Plasmid DNA Purification

Maxiprep Plasmid Purification Set up 1 of 9

Pierce reagent tray foil with the provided piercing tool



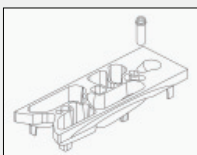
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1. Remove a Reagent Tray from the package and pierce the reagent tray foil seal with piercing device supplied with the instrument. Press **Next**.

Maxiprep Plasmid Purification Set up 2 of 9

Remove cap and place an empty 2 mL collection tube into the elution tube slot



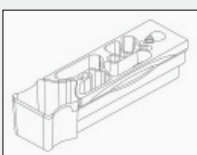
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2. Uncap and label the supplied elution tube (2 mL). Place the labeled tube into the elution tube slot on the tray. Press **Next**.

Maxiprep Plasmid Purification Set up 3 of 9

Place pierced reagent tray into the autoclavable waste tray



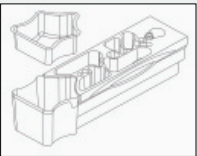
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3. Open the drawer unit and remove the Waste Tray. Place the Reagent Tray in the Waste Tray slot. Press **Next**.

Maxiprep Plasmid Purification Set up 4 of 9

Place a disposable cell liner reservoir into the waste tray



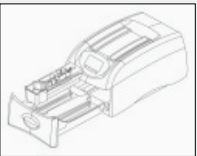
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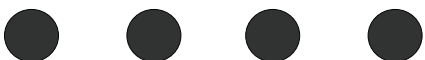
4. Place the Cell Liner in the reservoir slot in the Waste Tray. Press **Next**.

Maxiprep Plasmid Purification Set up 5 of 9

Open instrument drawer and place the waste tray/reagent tray into the slot




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5. Open the drawer unit and place the Waste Tray with Cell Liner and Reagent Tray into the instrument. Press **Next**.

Maxiprep Plasmid Purification Set up 6 of 9

Pour 125 mL of 2.0 to 2.4 OD culture into disposable cell liner and cover with lid



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6. Add up to 125 mL of overnight culture into the Cell Liner. Place the lid on the Cell Liner. Press **Next**.

Intended Use

For research use only. Not intended for any animal or human therapeutic or diagnostic use.

BenchPro® 2100 MaxiCard™ Plasmid Purification Instrument

Maxiprep Plasmid Purification Set up 7 of 9

Please check the following before closing door

- Elution tube is labeled and uncapped
- Reagent tray is pierced
- Cell culture volume is below maximum fill mark
- Cell liner is covered with lid


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7. Ensure that you performed Steps 1–6. If you have accidentally missed a step, press **Back** and perform the missed step. Press **Next**.

Maxiprep Plasmid Purification Set up 8 of 9

Close instrument drawer



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8. Gently close the drawer unit of the instrument.
- Note:** Once the card is inserted, you cannot open the drawer.

Maxiprep Plasmid Purification Set up 9 of 9

Insert Card(s)

Press Start



Back Start



9. Insert a BenchPro® MaxiCard into a slot in the instrument such that the tips are inserted into the reagents placed in the reagent tray. Using the Card Alignment Guide, place the card correctly in the slot until you hear a click. Press **Start**.

10. Press **Run** on the protocol set up screen to begin the protocol. The protocol begins and various steps of the protocol are displayed on the screen. The display shows **Protocol Complete** when the protocol is complete.

Unloading Procedure for the BenchPro® 2100

- At the end of the run, remove the card from the slot and discard the card appropriately. Do not reuse the card.
Note: You are unable to open the drawer unit until the card is removed.
- Open the drawer unit to remove the elution tube containing purified plasmid DNA. Cap the elution tube.
To avoid repeated freezing and thawing of DNA, store the purified DNA at 4°C for immediate use or aliquot the DNA and store at -20°C for long-term storage.
- Remove the used Reagent Tray and Cell Liner, and discard appropriately. Any waste generated during the protocol is collected in the Cell Liner and Waste Tray cavity. Discard waste solution appropriately. If needed, you can remove the Waste Tray to wash and/or autoclave.
- To run another protocol, press the **Next** function key to return to the initial protocol setup screen.
- Load new Reagent Tray and Cell Liner. Add cell culture and insert a new card. Start the protocol as described above. There is no cooling period required between runs.
- If you are not using the instrument, turn **OFF** the power switch located on the left side of the unit.

Refer to the user manual for detailed troubleshooting information.

Cleaning and Maintenance

Clean the surface of the BenchPro® 2100 instrument with a damp cloth. Do not use harsh detergents or solvents to clean the unit. Clean the bottom of the instrument drawer with a light spray of 70% ethanol and then wipe the ethanol with a paper towel. Clean the Waste Tray with diluted bleach solution (10%) and /or autoclave.

For any other repairs and service, contact Technical Support. Do not perform any repairs or service on the BenchPro® 2100 instrument to avoid damaging the unit.

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