# PureYield<sup>™</sup> Plasmid Midiprep System



INSTRUCTIONS FOR USE OF PRODUCTS A2490, A2492 A2495 AND A2496.

## **Preparation of Solutions**

Before lysing cells and purifying DNA, prepare Endotoxin Removal Wash by adding isopropanol, and Column Wash by adding ethanol. Cap tightly after additions. See Technical Manual #TM253 for volumes and detailed instructions.

Standard DNA Purification Protocol	<b>Bacterial Culture Volume</b>	
Prepare Lysate	50–100ml	101–250ml
1. Pellet cells at 5,000 $\times$ <i>g</i> .	10 minutes	10 minutes
2. Suspend pellet in Cell Resuspension Solution.	3ml	6ml
<ol> <li>Add Cell Lysis Solution.</li> <li>Invert 3–5 times to mix. Incubate</li> <li>3 minutes at room temperature.</li> </ol>	3ml	6ml
<ol> <li>Add Neutralization Solution. Invert 5–10 times to mix.</li> </ol>	5ml	10ml
5. Centrifuge lysate at $15,000 \times g$ at room temperature.	15 minutes	15 minutes

## **DNA Purification**

- 6. Assemble a column stack by placing a blue PureYield<sup>™</sup> Clearing Column on top of a white PureYield<sup>™</sup> Binding Column. Place the column stack onto a vacuum manifold.
- 7. Carefully pour supernatant into column stack. Apply vacuum, continuing until all liquid has passed through both the clearing and binding columns.
- 8. Slowly release the vacuum from the filtration device. Remove the blue clearing column, leaving the binding column on the manifold.

**Note:** If the binding membrane has been dislodged from the bottom of the column, tap it back into place using a sterile pipette tip.

### Wash

- 9. Add 5.0ml of Endotoxin Removal Wash to the binding column, and allow the vacuum to pull the solution through the binding column.
- 10. Add 20ml of Column Wash Solution to the binding column, and allow the vacuum to pull the solution through the binding column.
- 11. Dry the membrane by applying a vacuum for 30–60 seconds. Repeat if the tops of the DNA binding membranes appear wet or there is detectable ethanol odor.
- 12. Remove the binding column from the vacuum manifold, and tap it on a paper towel to remove excess ethanol.

(Protocol continued, other side)

#### ORDERING/TECHNICAL INFORMATION:

www.promega.com • Phone 608-274-4330 or 800-356-9526 • Fax 608-277-2601



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PROTOCOL

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## **DNA Purification (continued)**

## Elute by Vacuum (alternatively, see Elute by Centrifugation, starting at Step 18)

- 13. Place a 1.5ml microcentrifuge tube into the base of the Eluator™ Vacuum Elution Device (Cat.# A1071), securing the tube cap as shown in Figure 1, Panel A.
- 14. Assemble the Eluator™ Vacuum Elution Device, and insert the DNA binding column into the device, making sure that the column is fully seated on the collar.
- 15. Place the elution device assembly, including the binding column, onto a vacuum manifold (Figure 1, Panel B).
- 16. Add 400–600µl of Nuclease-Free Water to the DNA binding membrane in the binding column. Wait for 1 minute. Apply maximum vacuum for 1 minute or until all liquid has passed through the column.
- 17. Remove the microcentrifuge tube and save for DNA quantitation and gel analysis.

### **Elute by Centrifugation**

- 18. Place the binding column into a new 50ml disposable plastic tube.
- 19. Add  $600\mu$ I of Nuclease-Free Water to the DNA binding membrane in the binding column. Wait for 1 minute. Centrifuge the binding column at 1,500–2,000 × g for 5 minutes using a **swinging bucket rotor**, and collect the filtrate. **Note:** Do not cap the 50ml tube during centrifugation.



Figure 1. The Eluator™ Vacuum Elution Device for elution by vacuum. Panel A. A 1.5ml microcentrifuge tube is placed into the base of the Eluator™ Device, and the tube cap is secured in an open position, as shown. Panel B. The Eluator™ Vacuum Elution Device assembly, including the binding column, on a vacuum manifold.

For complete protocol information see Technical Manual #TM253, available at: www.promega.com/tbs



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Printed in USA. Revised 12/09. Part #9FB077