

[MINIPREP](#)

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# PureYield™ Plasmid Purification Systems

Minipreps, Midipreps and Maxipreps

- ✓ **Extraordinary Speed**
- ✓ **Transfection-quality DNA**
- ✓ **High Yield and Purity**

## Miniprep Protocol Overview

### MINIPREP

PROTOCOL OVERVIEW

HIGH PLASMID YIELD

TRANSFECTION-GRADE

CELL-FREE  
EXPRESSION-GRADE

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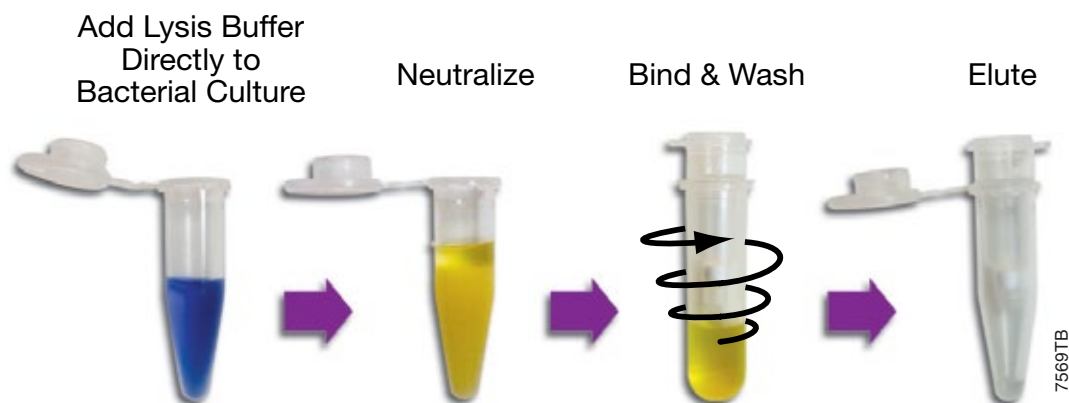
**Rapid 10-minute prep yielding  
transfection-quality DNA  
with PureYield™ Miniprep**



**Transfection-Quality Plasmid  
in under 10 minutes**



**Watch the video podcast**





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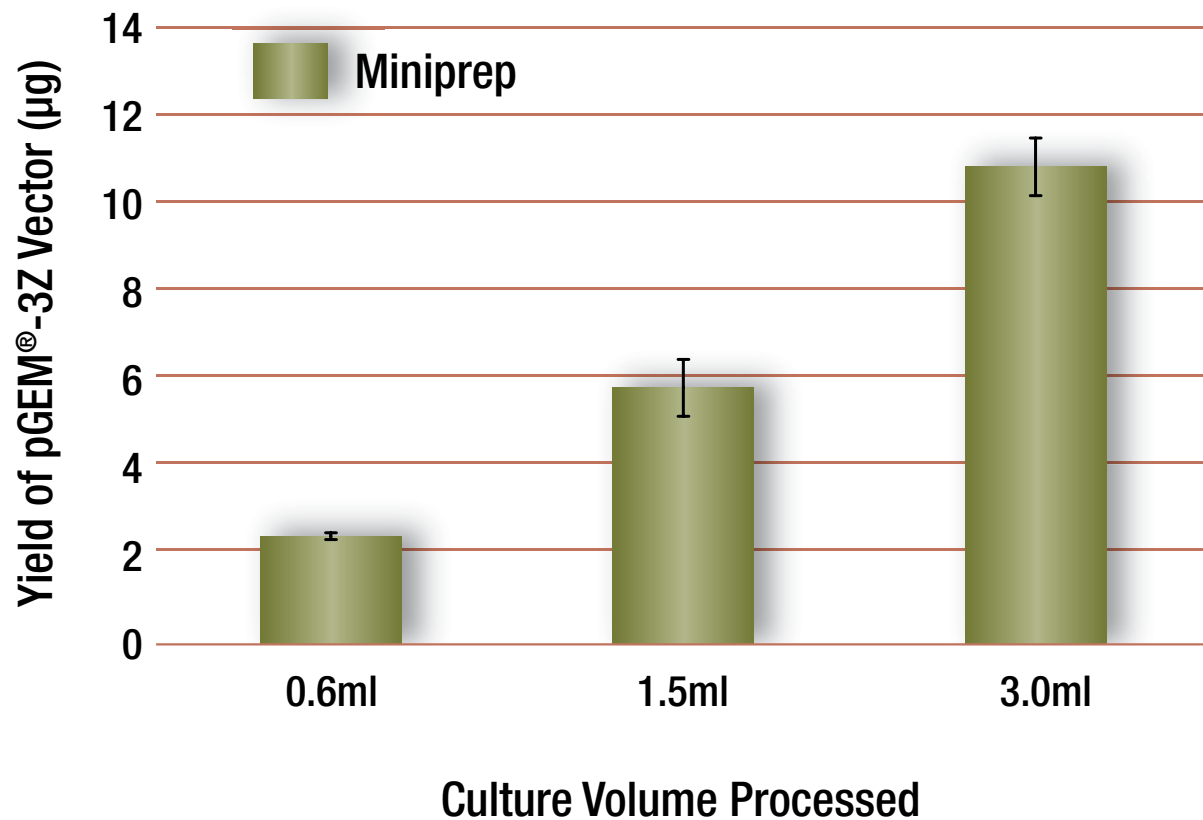
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## High Plasmid Yield

Extremely rapid plasmid preps without sacrificing yield



7540MC

Typical yields for a high copy number plasmid eluted in 30µl water.

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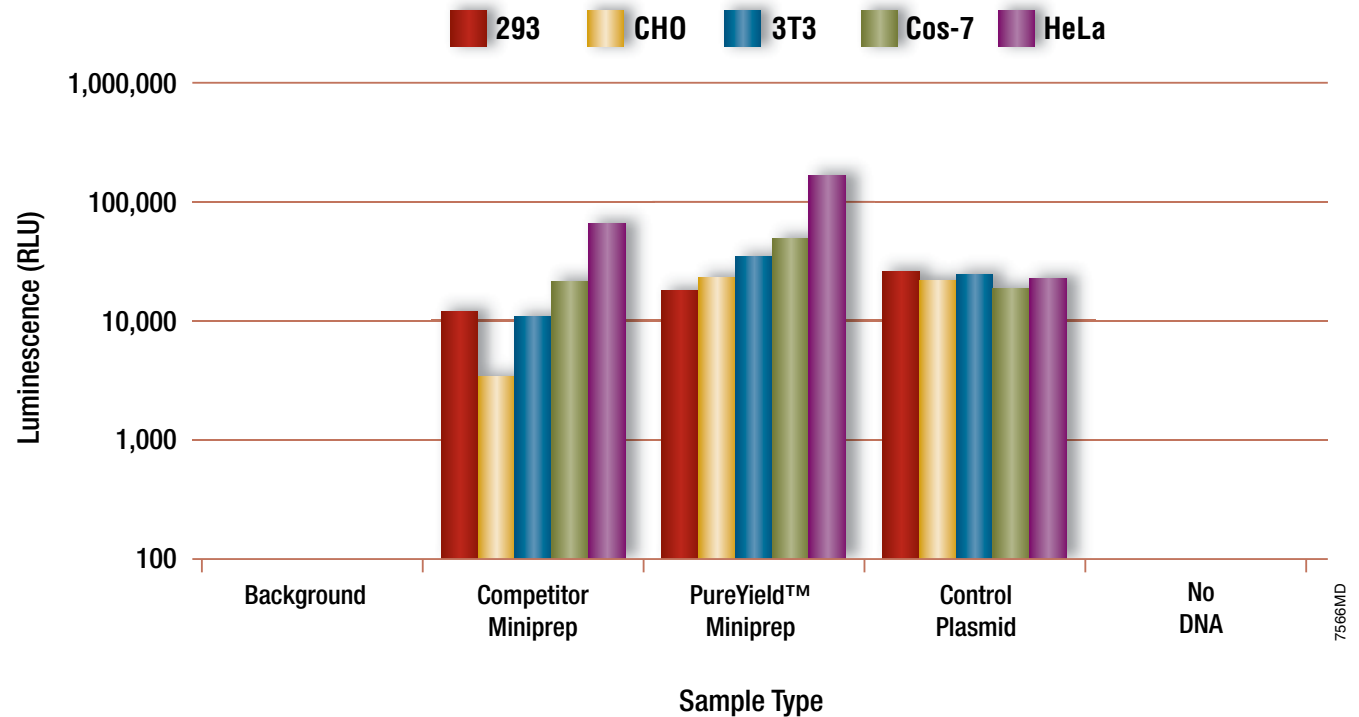
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# Transfection-grade Plasmid DNA

Go directly from plasmid prep to transfection



Transfection of SV40 promoter-driven firefly luciferase vector (pGL4.13 Vector) and subsequent assay in 5 different cell lines.

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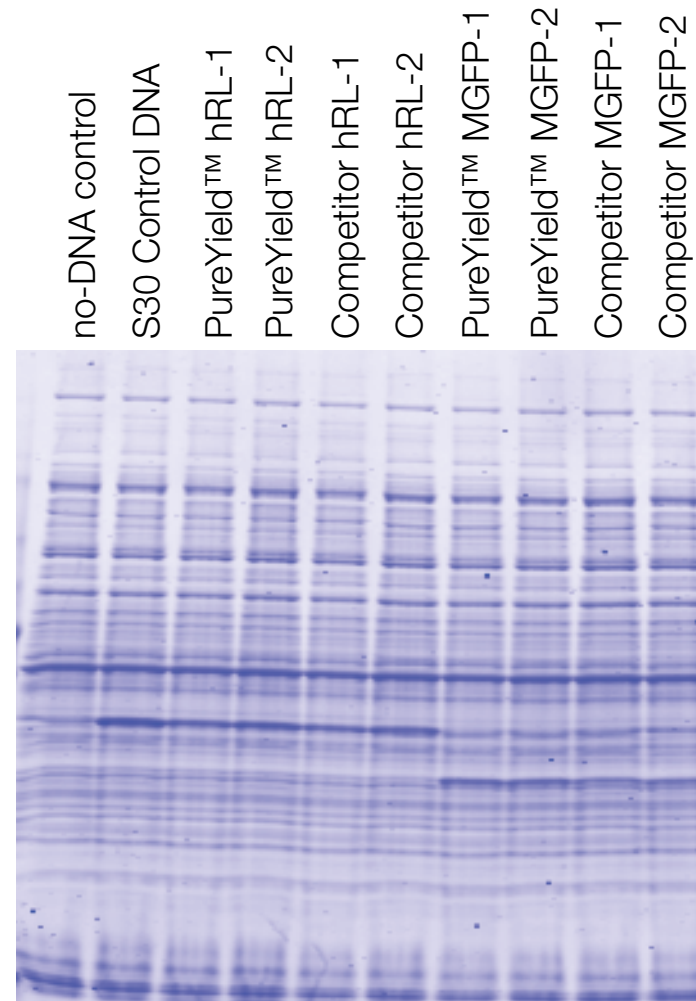
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## Cell-Free-Expression-Grade Plasmid

Express protein *in vitro* directly after the prep, no further clean-up necessary



**Expression of Renilla luciferase and Monster Green® Fluorescent Protein (Cat. # E6421) from plasmids isolated with PureYield™ Minipreps and competitor minipreps.**

Proteins were expressed using the S30 T7 High-Yield Protein Expression System (Cat. # L1110).

- ← Renilla luciferase, 36kDa
- ← Monster Green® fluorescent protein, 26kDa

7725TA

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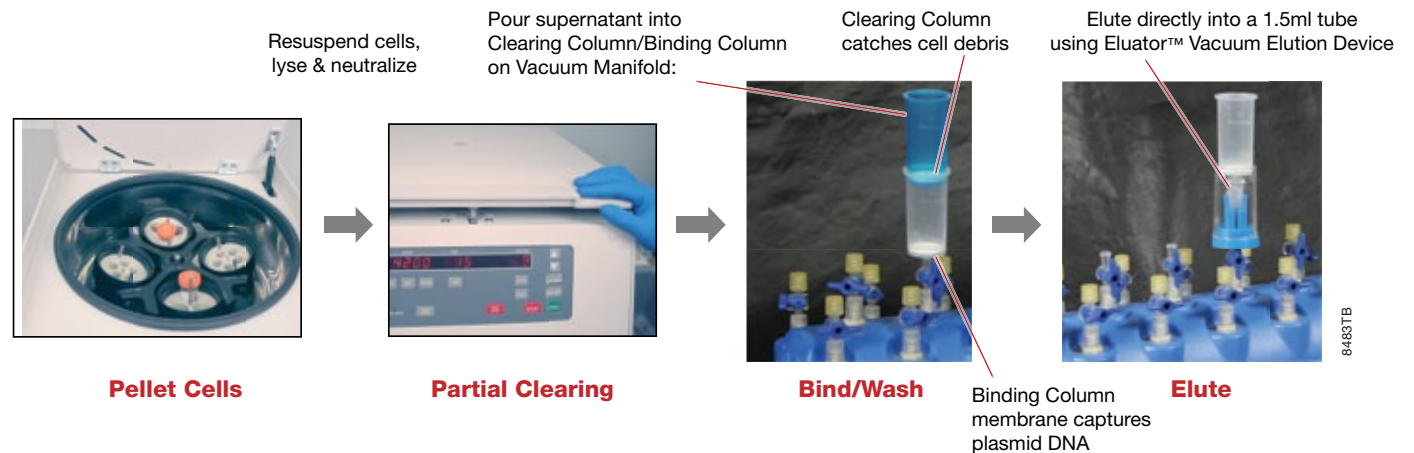
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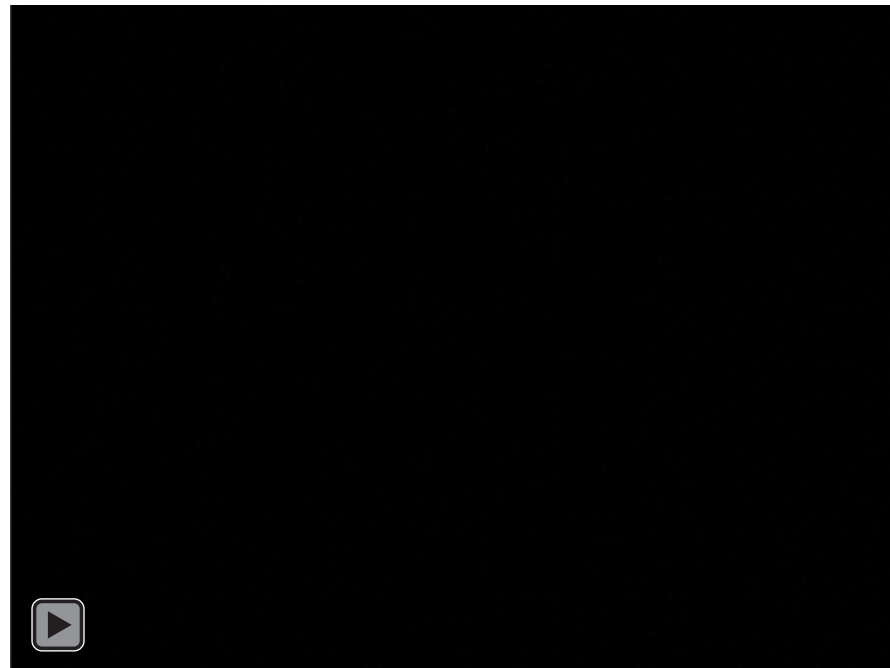
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# Midiprep and Maxiprep Protocol Overview

Gain maximum speed with vacuum bind, wash & elute protocol for Midi and Maxi



40 minute midiprep  
60 minute maxiprep



Watch the comparison video

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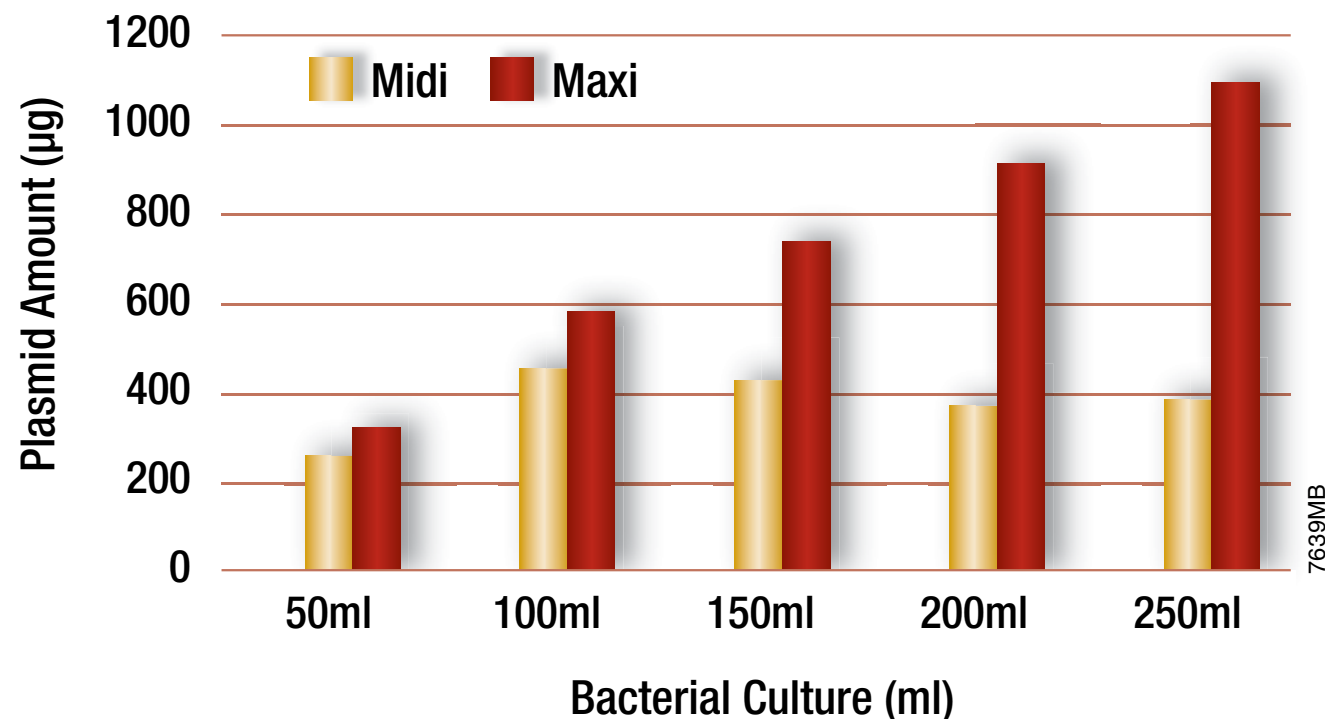
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## High Plasmid Yield

Extremely rapid plasmid preps without sacrificing yield



Purification of high copy number plasmid from overnight cultures.

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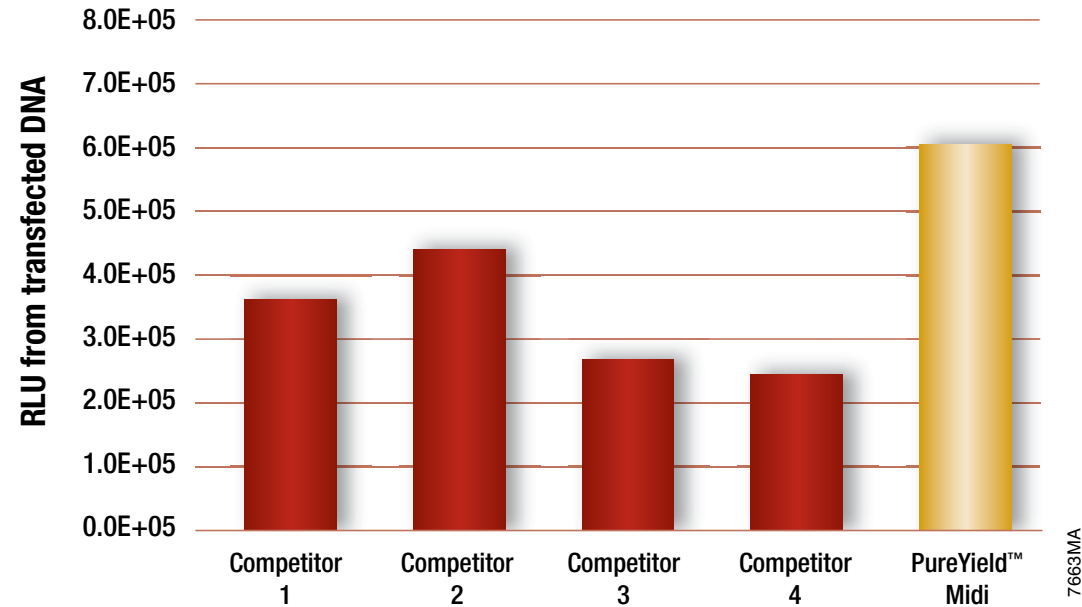
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## Transfection-grade Plasmid DNA

Go directly from plasmid prep to transfection



**An overnight culture was split evenly and processed with four competitor kits and PureYield™ Midipreps.** Isolated plasmid was transfected into CHO cells and luciferase expression measured with the ONE-Glo™ Luciferase Assay System.



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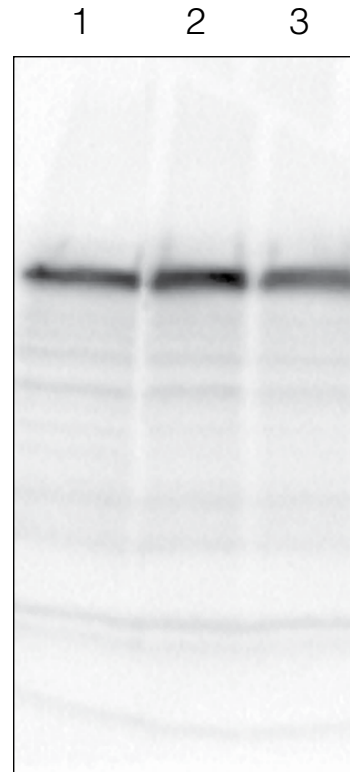
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## Cell-Free-Expression-Grade Plasmid

Express protein in vitro directly after the prep, no further clean-up necessary



Expression of firefly luciferase from SP6 Control Plasmid isolated with PureYield™ Midipreps and competitor midipreps in TNT® SP6 Quick Coupled Transcription/Translation System. Kit control is purified via phenol/chloroform and ethanol precipitation.

### Lane Sample

- |   |                             |
|---|-----------------------------|
| 1 | Kit control                 |
| 2 | PureYield™ Plasmid Midiprep |
| 3 | Competitor purified plasmid |

4630TB



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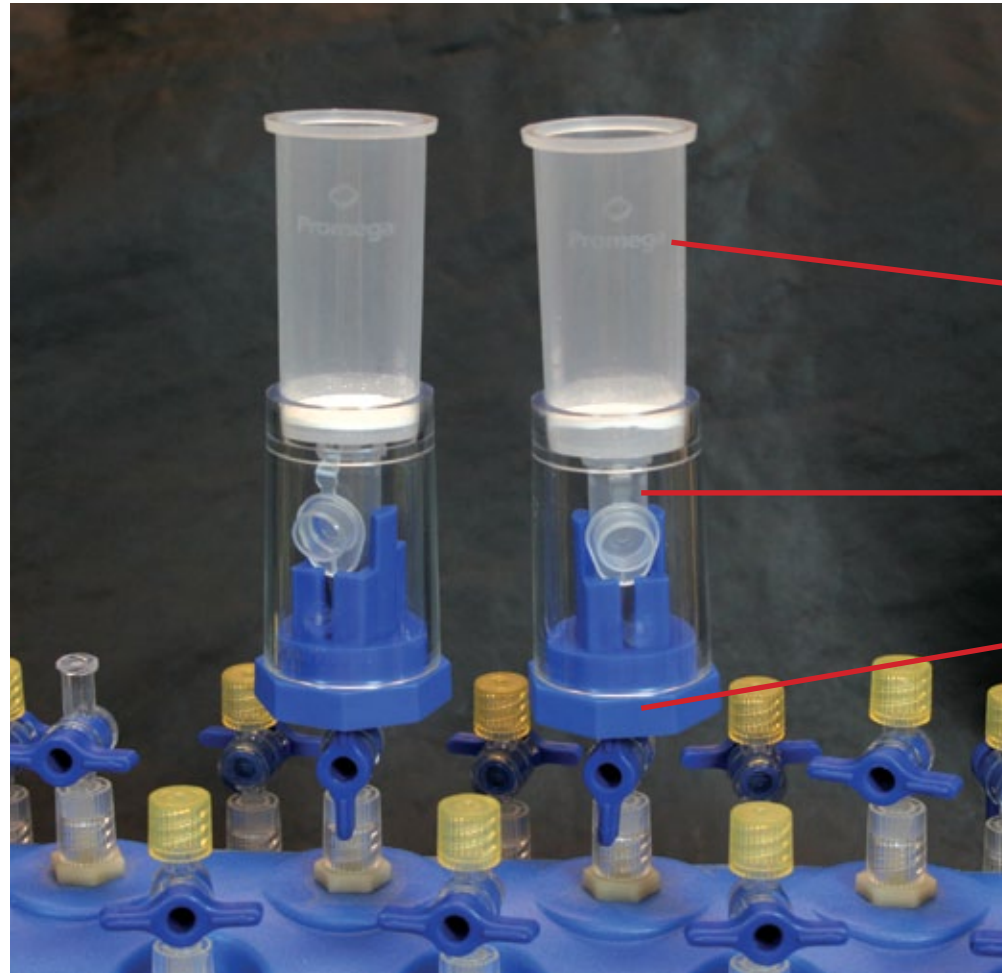
ELUATOR™ ELUTION  
IMPROVES YIELD

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## Eluator™ Vacuum Elution Device



PureYield  
midi/maxi

Elute directly  
into a 1.5ml tube

Eluator

7425CA

**DNA is eluted directly into 1.5ml microcentrifuge tubes, eliminating the need to transfer DNA.** Elution is complete in less than 1 minute when using an appropriate vacuum source such as a Welch WOB-L 2522 Vacuum Pump.

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ELUATOR™ ELUTION  
IMPROVES YIELD

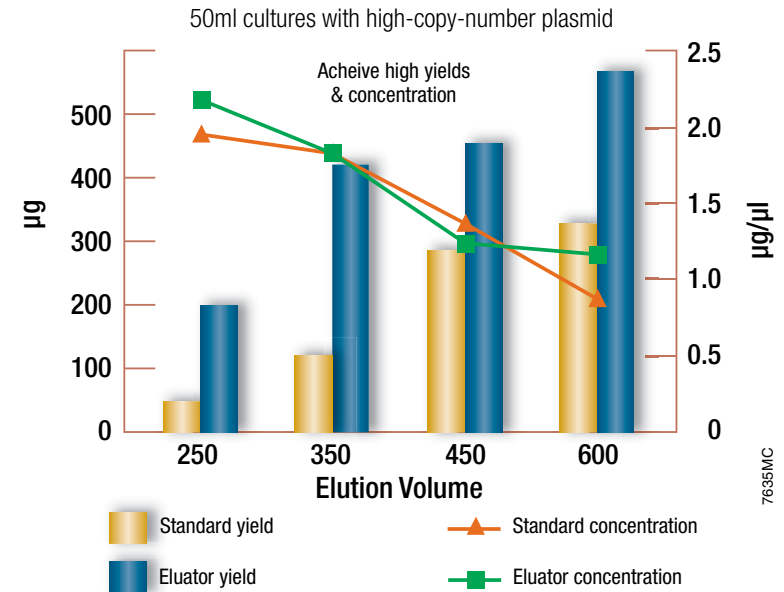
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## Eluator™ Elution Improves Yield

The Eluator Vacuum Elution Device is used to elute nucleic acids from PureYield Midiprep or Maxiprep columns



PureYield™ Plasmid Midiprep Yield and Recovery

**Comparison of plasmid yield from 50ml overnight culture at various elution volumes using the Eluator Vacuum Elution Device or the standard centrifugation elution method.** The Eluator Vacuum Elution Device allows elution directly into a 1.5ml tube and recovers a greater volume of the eluate.



Watch the Eluator Video

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## Order Product



[Promega Catalog](#)



## Ordering Information

Product	Size	Catalog Number
PureYield™ Plasmid Miniprep System <sup>(a,b)</sup>	100 preps	A1223
	250 preps	A1222
PureYield Plasmid Midiprep System <sup>(a)</sup>	25 preps	A2492
	100 preps	A2493
PureYield Plasmid Maxiprep System <sup>(a)</sup>	10 preps	A2392
	25 preps	A2393
Eluator™ Vacuum Elution Device* Allows direct elution of plasmid into a 1.5ml tube with increase yield over standard swinging-bucket rotor centrifugation elution.	4 each	A1071
Vac-Man™ Laboratory Vacuum Manifold, 20 place Vacuum method is generally faster as it avoids many of the centrifugation steps.	1 each	A7231

\*For Laboratory Use.

<sup>(a)</sup>U.S. Pat. No. 6,194,562, Australian Pat. No. 740145, Canadian Pat. No. 2,329,067 and other patents pending.

<sup>(b)</sup>Lysis/neutralization indicator licensed under pending patents assigned to Zymo Research Corporation.

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## Protocol Information



PureYield™ Plasmid Miniprep Technical Bulletin  
PureYield™ Plasmid Miniprep Quick Protocol Card

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PureYield™ Midiprep Technical Bulletin  
PureYield™ Midiprep Quick Protocol Card

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PureYield™ Maxiprep Technical Bulletin  
PureYield™ Maxiprep Quick Protocol Card

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PureYield™ Plasmid Miniprep Podcast Protocol (29MB .mov file)  
PureYield™ Plasmid Miniprep Podcast Protocol (2.4MB .mp3 file)  
PureYield™ Midiprep protocol (29MB .mov file)  
Assembling a vacuum pump and manifold (7.7MB .mov file)  
Eluting with the Eluator™ Vacuum elution device (9.4MB .mov file)

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### Protocols & Applications Guide:

General considerations for plasmid DNA purification  
Factors that affect plasmid DNA quality and yield

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## More Info



[TechServ@promega.com](mailto:TechServ@promega.com)



[www.promega.com](http://www.promega.com)



## References



White, D., *et al.* (2004) Fast, reliable, high-quality midiprep plasmid purification using the PureYield™ Plasmid Midiprep System. *Promega Notes* **88**, 5-8



Wieczorek D., *et al.* (2009) PureYield™ Plasmid Purification Systems Comparison: Excellent Speed, Yield, Purity and Performance. *Technical Publications Portal* **tpub\_005**.



Zhao R., *et al.* (2008) Remove the High-Speed Spin from PureYield™ Plasmid Preps. *eNotes/AP0101*



Smith D. and Vincent E. (2008) Transfection-Quality Plasmid DNA in as little as Ten Minutes Using the PureYield™ Plasmid Miniprep System. *Cell notes* **21**, 3-5.

[Citations via HighWire Press](#)

