# **Imcs**tips<sup>®</sup>



# MidiPure<sup>™</sup> IMCStips<sup>®</sup>

Simplifying plasmid purification at scale

MidiPure<sup>™</sup> IMCStips<sup>®</sup> on the Dynamic Devices platform offers an efficient solution for automated, high-throughput plasmid DNA purification. Designed for larger volumes, it enables labs to convert **5 mL pipetting systems into mid-scale purification platforms**. This upgrade from the 1 mL μPure IMCStips protocol allows labs to process up to 500 mL of culture, isolating nearly 2.4 mg of plasmid DNA per plate in *less than two hours*.

By coupling this technology with the **Dynamic Devices Lynx Series** liquid handling robot, methods are streamlined with the hands-free implementation of multiple aspirate and dispense cycles that facilitate consistent results, high recoveries, and faster workflows.



## **KEY FEATURES**

- Process up to 24 samples simultaneously with yields exceeding 100 μg per sample
- Hands-free operation eliminates the need for centrifuge or vacuum manifold steps
- Purify plasmids from 100 mL to 500 mL bacterial cultures with ready-to-use scripts
- Turnkey solutions and customized scripts for plug-and-purify workflows. *Just Click Go!*

Available in 5 mL (shown).

Frit

Loose Resin

Barrier



#### **USER GUIDELINES**

To ensure the seamless integration of IMCStips, IMCS provides technical support and templated scripts along with user guidelines for each application.

### Automated Plasmid Purification with MidiPure<sup>™</sup> IMCStips<sup>®</sup> on a Dynamic Devices Lynx



Figure 1. Langmuir adsorption isotherms for pDNA binding to a range of amounts of silica in MidiPure IMCStips across multiple binding cycles. The figure illustrates the relationship between the number of binding cycles and the amount of pDNA eluted (n = 3). The amounts of silica packed in the IMCStips are 50 mg, 100 mg, 150 mg, and 250 mg (A-D). Dashed lines: fitted data; circles: data collected.

Table 1. Yield and purity of pDNA across different cell densities. (n = 4)

| <b>OD</b> <sub>600</sub> | pDNA concentration (ng/ $\mu$ L) | Amount pDNA (μg)      | 260/280                  | 260/230     |
|--------------------------|----------------------------------|-----------------------|--------------------------|-------------|
| 20                       | 65 ± 2                           | 39 ± 1.3              | 1.84 <mark>± 0.01</mark> | 2.18 ± 0.08 |
| 30                       | 69 <u>±</u> 6                    | 41 ± 3.5              | 1.85 ± 0.00              | 2.19 ± 0.06 |
| 50                       | 92 ± 1                           | 55 ± <mark>0.4</mark> | 1.85 ± 0.01              | 2.22 ± 0.05 |
| 80                       | 111 ± 2                          | 66 ± <mark>0.9</mark> | 1.90 ± 0.01              | 2.28 ± 0.05 |
| 100                      | 113 ± 5                          | 68 ± 3.1              | 1.90 ± 0.01              | 2.29 ± 0.02 |

 Table 2. Plasmid yield and purity comparing MidiPure IMCStips and a midi spin column.

| Sample ID                      | ng/µL                | μg                   | 260/280     | 260/230     |
|--------------------------------|----------------------|----------------------|-------------|-------------|
| One MidiPure IMCStips® [n = 8] | 194 <mark>± 6</mark> | 117 <mark>± 4</mark> | 1.89 ± 0.01 | 2.06 ± 0.04 |
| Midi Spin Column [n =4]        | 419 <u>± 15</u>      | 251 <mark>± 9</mark> | 1.89 ± 0.01 | 2.20 ± 0.01 |



### Ready to simplify your sample prep? Contact us for a *FREE* sample of IMCStips today!



└── inquiries@imcstips.com



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