

# Technical Data Sheet

## High Throughput DNA Preps by **Whatman Filter Plates**

The DNA Factory at the Biodesign Institute in the Center for Personalized Diagnostics has the capabilities to perform two different methods of 96-well format DNA purification. The difference between these two methods is the amount of final DNA concentration obtained, endotoxin purification capabilities, and overall cost. Discussed here are the technical specifications and quality control measures of the higher cost DNA preps.

**Cost: \$650.00/96-well plate**

### Validated Applications post DNA preparation:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>-Recombinational cloning</li> <li>-Restriction Digests</li> <li>-PCR templates</li> <li>-Sanger Sequencing</li> <li>-Next Generation Sequencing</li> <li>-Ligations</li> <li>-Transformations</li> </ul> | <ul style="list-style-type: none"> <li>-Transfections</li> <li>-DNA Array Printing</li> <li>-Protein Expression</li> <li>-Endotoxin Free</li> </ul> |
|---|---|

### Turnaround Time:

- |   |  |
|---|--|
| <p>Bacterial pellet to purified DNA</p> <ul style="list-style-type: none"> <li>- Two preps per 2 hours</li> <li>- Four preps per 3.5 hours</li> </ul> | <p>Bacterial pellet to precipitated and normalized DNA</p> <ul style="list-style-type: none"> <li>- Two preps per 9.5 hours</li> <li>- Four preps per 11.25 hours</li> </ul> |
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### DNA Quality:

OD 260/280: 1.79± 0.07

### DNA Quantity:

| Plate Statistics for Purified DNA <sup>2</sup> |            | Plate Statistics for Normalized DNA <sup>3</sup> |           |
|--|------------|--|-----------|
| Average DNA Concentration                      | 90 ng/ul   | Average DNA Concentration                        | 1000ng/ul |
| Standard Deviation                             | 13.2 ng/ul | Standard Deviation                               | 117ng/ul  |
| % CV   | 14.8%      | %CV  | 11.7%     |

### Data:

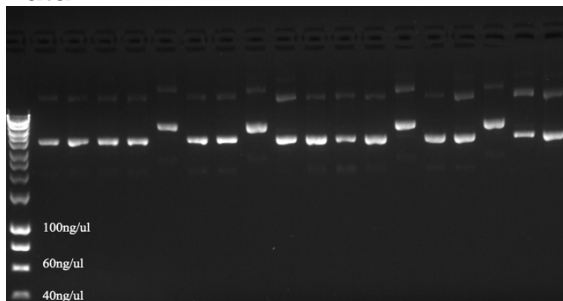


Figure 2. Ethidium Bromide DNA gel of 1ul of a 1/10 diluted sample loaded from representative wells of DNA prep normalized to 1000ng/ul.

<sup>2</sup> DNA eluted in 300ul of elution buffer and numbers reflect bacterial cultures grown for 22 hours in TB.

<sup>3</sup> DNA can be normalized to a range of different values up to 1200ng/ul in 20ul of water. This data represents a plate normalized to 1000ng/ul.