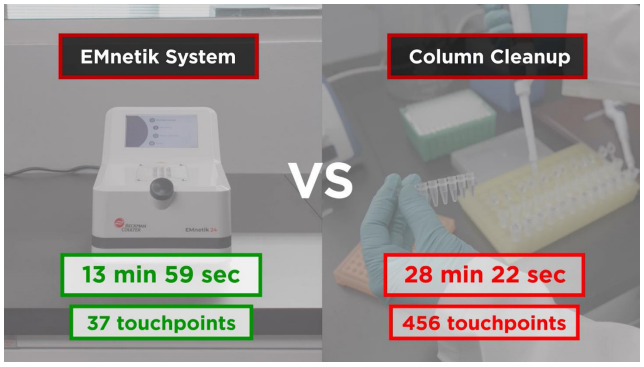
BECKMAN COULTER Life Sciences

EMnetik System

PCR Cleanup and Plasmid Prep —Simplified

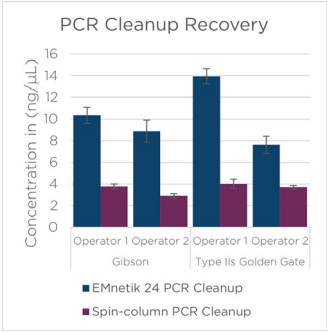
The EMnetik 24 microparticle processor is a semi-automated device designed for PCR cleanup and plasmid purification; the semi-automation is powered by an electromagnet that almost instantaneously mixes and separates the SuperSPRI beads in the EMnetik reagent kits, thus eliminating the need for manual pipette mixing or the use of columns.

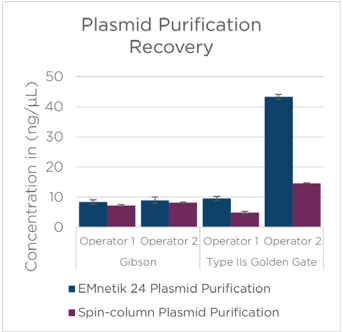
- 2x Faster
- <50 Touchpoints
- High Responsive Magnetic Beads
- Improved Bead Mixing and Separation
- Guided User Interface
- Small and Lightweight



Similar Performance Compared to Spin-Column Kits

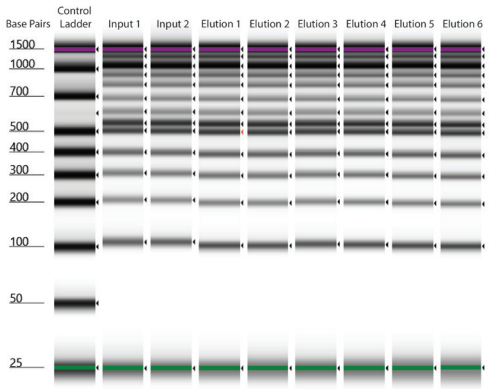
On the right the concentration of DNA recovered using either an EMnetik PCR cleanup kit or a spin-column cleanup kit. The DNA recovered were from either a Gibson assembly or a Type IIs Golden Gate assembly. The EMnetik PCR cleanup kit on average resulted in greater yields than the spin-column cleanup kit for these two users. Plasmids were also isolated using either the EMnetik Plasmid Purification kit or a spin-column plasmid purification kit as seen in the graph on the right. The bars are an average of three cleanups and the error bars are the standard deviation of those cleanups.





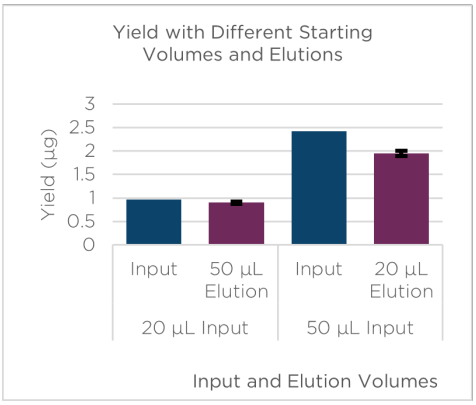
DNA is stable using the EMnetik PCR Cleanup Kit

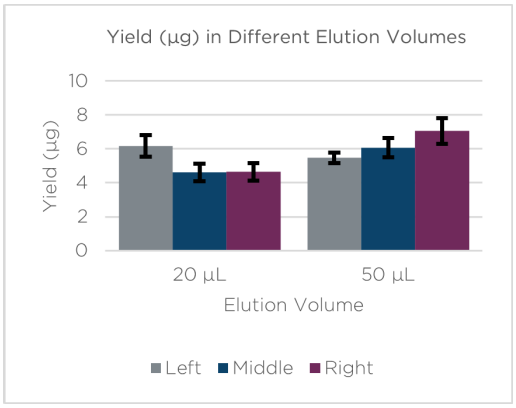
To test that DNA was not degraded during the automatic bead mixing or separation, NEB 100bp DNA ladder (PN: N3231L) was used as input. The lanes with input 1 and 2 show the input ladder, and the lanes with elution 1 – 6 show the ladder after cleanup. All bands can be seen in all lanes, indicating that DNA is not degraded during the cleanup process.



With EMnetik reagent kits you can choose your elution volume

The left graph shows the yield of elutions from 2 different starting inputs and 2 different elution volume options (50 µL and 20 µL). Bars indicate the average of 9 replicates on the device; error bars indicate the standard deviation of the replicates. The right graph shows yield of elutions from 2 different elution volume options (50 µL and 20 µL). The bars are the average of 8 replicates on the device, and the error bars are the standard deviation of the replicates. The left middle and right refer to the placement in the EMnetik system; for example, the left most column of samples are averaged in the left grey bars.





Frequently Asked Questions:

1. **What is the highest concentration of DNA I can use with the EMnetik PCR Cleanup Kit?**
   We recommend using starting material with a concentration that is no higher than 800 ng/µL.
2. **What is the largest fragment size that I can clean up?**
   The largest fragment size that we recommend for use with the EMnetik PCR Cleanup Kit is 10 kilobases. The reagent kit does not currently support cleanup of genomic DNA, and if DNA that is larger than 10 kb is used, the user should expect lower yields.

PART NO	PRODUCT NAME	NUMBER OF PREPS
CS7784	EMnetik 24 Microparticle Processor	–
C69442	EMnetik PCR cleanup Kit	500 (50 µL preps)
C69445	EMnetik Plasmid Purification Kit	96

PART NO	PRODUCT NAME	NUMBER OF PREPS
C81106	EMnetik 24+ EU Power Cord	–
C79155	One Year Extended Warranty	–

Not intended or validated for use in the diagnosis of disease or other conditions.
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