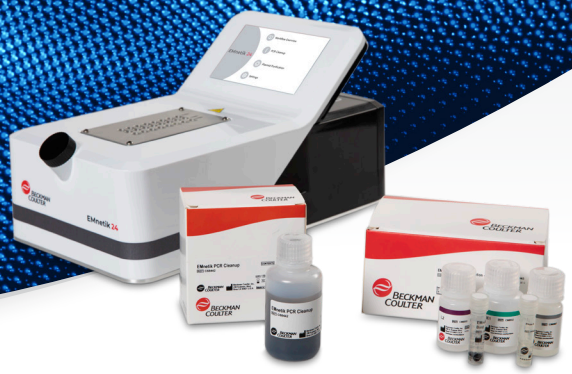
Frequently Asked Questions



1. **How is the EMnetik system different from current bead cleanup kits?**

   First, the device removes the need for pipette mixing. The device uses electromagnets to create a magnetic field that causes the SuperSPRI beads in the reagent kits to mix. Second, the SuperSPRI beads in the EMnetik reagent kits are more responsive to magnetic fields than other reagent kits on the market. This allows them to move to the magnet for super-fast settling times.

2. **What kind of tubes fit in the EMnetik 24 microparticle processor?**

   PCR Tubes. We have specific suggestions, but they are common tubes which include single tubes, 8-strip tubes, and 24-well PCR tube plates. The products we recommend are in the table below and can also be found in the IFU and online.

Item	Type
Individual PCR Tubes	VWR, Cat # 20170-012 VWR, Cat # 20170-010
8-Well PCR Tube Strips	VWR, Cat # 93001-118 VWR, Cat # 20170-002
24-Well PCR Plate	VWR, Cat # 89429-038/Simport, Ref. #T323-24N

3. **What starting volume can I use?**

   We suggest 20-50 µL of DNA sample input for the PCR cleanup and 1.5 mL of overnight culture for the plasmid prep. For PCR, better results have been demonstrated with the larger input volumes.

4. **What elution volume can I use?**

   We suggest an elution volume of 50 µL, but the EMnetik 24 microparticle processor supports volumes as low as 20 µL; be aware that lower elution volumes may decrease yields and purity.

5. **What sample types can be used?**

   For the PCR cleanup kit, you can use any PCR or enzymatic reaction as the starting material.

6. **How do I know what side of the tube the magnetic bead pellet is on if I can't see through the tubes?**

   On the top of the instrument we have guides for what side the magnet is on and where you should place your pipette. See image to the right.

7. **Can I use this for NGS library prep cleanup? Will the EMnetik PCR cleanup kit do size selection?**

   No, the EMnetik PCR cleanup kit should not be used for NGS library prep cleanup. No, the EMnetik PCR cleanup kit is not recommended for size selection of nucleic acids. However, we do carry products for NGS library prep cleanup and size selection.

8. **Can the EMnetik PCR Cleanup Kit be used to extract DNA in dissolved gels for gel extractions?**

   No, the EMnetik PCR Cleanup Kit cannot be used to extract or clean up DNA from dissolved gels used for gel extraction.

9. **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.

10. **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.

11. **What types of plasmids can be isolated using the EMnetik Plasmid Purification Kit?**

    The kit can be used to isolate both high and low copy plasmids.

12. **Can other magnetic beads be used on the EMnetik 24 microparticle processor?**

    No, we do not recommend using other magnetic bead-based kits on the EMnetik 24. The SuperSPRI beads in the EMnetik PCR Cleanup Kit and EMnetik Plasmid Purification Kits were designed specifically to work on the EMnetik 24 microparticle processor and be more responsive to the magnetic fields in the EMnetik 24 microparticle processor.

13. **Is it possible to use the EMnetik 24 microparticle processor on an open liquid handler like the Biomek i5 or i7 Automated Workstations?**

    No; at this time the product has not been integrated on a liquid handler and there are no plans for the development of this option.

14. **How many samples can I process with the kits?**

    The instrument processes 1-24 samples *per run* in addition to the number of samples each full kit can process. Using the 50 µL starting volume, with the EMnetik PCR Cleanup Kit you can process 500 samples. With the EMnetik Plasmid Purification Kit you can process 96 plasmid preps.

15. **Can I store the kits on my bench?**

    Yes, you can store the EMnetik reagent kits on your bench. The recommended storage temperature is room temperature.

16. **Can I walk away from the instrument while the protocol is running?**

    The EMnetik 24 microparticle processor is a semi-automated device, and completes the mixing and binding steps for PCR cleanup and plasmid prep. But both protocols do require at least 5 minutes of hands-on time where the user either adds reagent or removes supernatant. If tubes are left sitting on the mixer with the bind reagent and samples added for an extended period, you can still proceed with the **Bind Mix & Separate step** workflow. The yields might be lower, however, due to the beads settling in the bottom of the tube.

17. **Is it possible to edit the protocols?**

    If you want to optimize your bind time, you can re-run the bind mix step by pressing the **Bind mix & separate** icon in the user interface. This is particularly useful if you have very high or very low concentrations of DNA or large plasmids. You can also adjust the ethanol dry time by using a long press on the **Ethanol dry and add eluant** icon. The dry step has been optimized, but depending on your workflow needs or humidity in your lab can be adjusted. Lastly, if you want to optimize your elution time, you can rerun the elution mix by pressing the **Elution mix & separate** icon in the user interface. This is also useful if you are working with larger plasmids and/or inserts or have over-dried your beads.

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

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