

Quick Protocol for EconoSpin™ All-in-One Mini Spin Columns (#1910-250 and #1920-250)

For Plasmid Mini Prep:

1. Harvest pellet from 1-5ml LB culture (grow for 12-16 hrs, vigorous agitation) by centrifuging at 10,000rpm for 1 minutes.
2. Discard supernatant and add 250µl **MX1** Buffer (should contain RNase A at final con. 100 µg/ml). Resuspend the pellet completely by vortexing.
3. Add 250µl **MX2** Buffer, and gently invert the tube 4-6 times. Incubate at RT for 1-5 minutes until all the solution become clear.
4. Add 350µl **MX3** Buffer and gently invert the tube 4-6 times, then centrifuge at 12,000rpm for 10 minutes.
5. Transfer the supernatant onto the spin column, and centrifuge at 4,000rpm for 1 minute. Discard the flow through. Then go to step 10.

For Gel Extraction:

6. Excise gel and add 3x volume of **GEX** Buffer. Keep in 55 °C for 10 min and shake casually until melt. (>2% gel, use 6x volume)
7. Transfer the supernatant onto the spin column, and centrifuge at 4,000rpm for 1 minute. Discard the flow through. Then go to step 10.

For PCR cleanup:

8. Add distill water to PCR product to 100µl. Add 500µl **PEX** Buffer and mix well.
9. Transfer the supernatant onto the spin column, and centrifuge at 4,000rpm for 1 minute. Discard the flow through. Then go to step 10.

→ Wash step:

10. Add 500µl **PB** Buffer or **WS** Buffer to spin column, and centrifuge at 12,000rpm for 1 minute. Discard the flow through.
11. Add 500µl **WS** Buffer to spin column, and centrifuge at 12,000rpm for 1 minute. Discard the flow through.
12. Centrifuge again 2 minute to remove the residual ethanol.
13. Discard the flow-through. Set the column into a new 1.5mL microcentrifuge tube.
14. To elute DNA, add **EB** Buffer onto the membrane and stand for 2-5 minute.
 - a. For Plasmid Miniprep, use 50-100 µl of EB.
 - b. For Gel extraction and PCR cleanup, use 20µl of EB.
15. Centrifuge at 12,000 x g for 1 min to elute the DNA.
16. Apply DNA to downstream reaction or store at -20 °C.

Storage: Please store the columns at RT (<27°C). Higher temperature will cause reduction of DNA binding to the column.