Genorise® Plasmid DNA Extraction Mini Kit 100

This kit uses mini-DNA binding column to isolate plasmid DNA from 1-5 ml of plasmid DNA-containing *E* coli and is for 100 applications. This kit can significantly increase quality and quantity of DNA and is more cost-effective than the similar products.

Materials provided in the kit:

1. 100 mini–DNA Binding columns
2. 100 Collection tubes
3. 60 ml Buffer GB
4. 30 ml Buffer GS
5. 30 ml Buffer GL
6. 40 ml Buffer GP
7. 28 ml Buffer GW1
8. 18 ml Buffer GW2
9. 12 ml Buffer GE

Materials required but not provided in the kit:

1. 100% Ethanol
2. 1.5 ml microcentrifuge tube

Reagent preparation

1. Buffer GW1: add 32 ml 100% ethanol
2. Buffer GW2: add 42 ml 100% ethanol

Protocol

1. Add 500 µl Buffer GB to DNA binding column with collection tube, centrifuge 13,000 x g for 1 min and discard the flowthrough.
2. Centrifuge 1-5ml bacterial culture at 13,000 x g for 1 min and discard supernatant. Pipet 250 µl Buffer GS into pellet and suspend bacterial cells and transfer to a 1.5 ml microcentrifuge tube.
3. Add 250 µl of Buffer GL and mix thoroughly by inverting the tube until solution becomes clear. Cell lysis should be done in 5 min.
4. Add 350 µl Buffer GP and mix thoroughly by inverting the tube for 4-6 times. Centrifuge at 16, 000 x g for 5 min.
5. Pipet the supernatant onto the column with collection tube and centrifuge at full speed (20,000 x g) for 1 min. If samples remain in the column, repeat centrifugation to completely remove the remaining samples. Discard the flow-through andbut keep collection tube.
6. Add 500 µl Buffer GW1 to the column with collection tube and add 500 µl Buffer GW1. Centrifuge at 6000 x g for 1 min. Discard the flow-through and keep the collection tube.

7. Add 500 µl Buffer GW2. Centrifuge at full speed (20, 000 x g) for 3 min. Discard the flow-through and keep the collection tube.
8. Centrifuge at full speed for 1 min. Discard the flow-through and collection tube.
9. Place the mini column in a new 1.5 ml microcentrifuge tube and add 50-100 µl Buffer GE and incubate for 2 min. Centrifuge at 6000 x g for 1 min to elute DNA.