

# Stool Genomic DNA Extraction Kit

**Cat. No.:** EXD0221

**Package:** 50T/100T

**Storage:** At room temperature(15°C-25°C) in dry place for 1 year.

## Kit Contents

Components	50T	100T
RNase A	1 ml	1 ml × 2
Proteinase K	1 ml	1 ml × 2
Solution SA	40 ml	80 ml
Solution SB	20 ml	40 ml
Solution SC	30 ml	60 ml
Washing Buffer	15 ml	15 ml × 2
Elution Buffer	15 ml	30 ml
Filter Column	50 Units	100 Units
Adsorption Column	50 Units	100 Units
Collection Tube	50 Units	100 Units
Instruction	1 Piece	1 Piece

**Note:** Once opened, Solution SA, SB, SC should be kept at 2-8°C. RNase A and Proteinase K should be kept at -20°C.

## Product Description

Stool Genomic DNA Extraction Kit is suitable for extracting of microbial DNA from stool. This kit has a good lysis effect on various bacteria and fungi in stool to preserve Micro-organism DNA diversity to the utmost.

The extracted DNA is large yield and good integrity, it can be directly used for a variety of routine operations, including enzyme digestion, PCR, library construction, Southern blot, etc.

## Protocol

Add fresh opened absolute ethanol in Washing Buffer before use, volume is based on the label of bottle as a reference. Put cap back on bottle and shake well. All centrifuge steps are performed at 2-8°C.

1. Take 50-200mg stool sample, add 400-800μL Solution SA and place on ice for 10min. Centrifuge at 12000rpm for 1 min.
2. Discard supernatant. Add 400μL Solution SB, 20μL RNase A(10mg/ml), 20μL Proteinase K(10mg/ml) to precipitation, whirl for 30s. Incubate in 65°C water bath for 30-60min. Invert tube several times during incubating. Centrifuge at 12000rpm for 2 min.
3. Transfer supernatant to a 1.5 ml centrifuge tube, add 300-600μL of Solution SC. Centrifuge at

12000rpm for 1-2min. Take one Filter Column in Collection Tube, add supernatant to Filter Column. Centrifuge at 12000rpm for 1-2min.

4. Take filtrate to Adsorption Column, place at room temperature for 1-2min. Centrifuge at 12000rpm for 0.5- 1min. This step can be repeatable once.
5. Pour waste liquid out of Collection Tube, add 500µl Washing Buffer to Adsorption Column. Centrifuge at 12000rpm for 1 min. This step can be repeatable once.
6. Pour waste liquid out of Collection Tube, put Adsorption Column back into Collection Tube. Centrifuge at 12000rpm for 0.5- 1min.
7. Take Adsorption Column out, make it dry at room temperature for a few minutes (time is different because of season, climate and other factors).
8. Put Adsorption Column in a new centrifuge tube, add 50-100µl Washing Buffer(preheated at 65°C). Centrifuge at 12000rpm for 1 min.
9. Add liquid in centrifuge tube in step 8 to Adsorption Column, centrifuge at 12000rpm for 1min. Liquid in centrifuge tube is stool microbial DNA solution.

#### **Notes**

1. Fresh stool samples will get a higher yield. And it is better to refer to proper preservation conditions for different samples.
2. If solution shows precipitation, heat and dissolve in 37°C water bath until solution is clear, it won't affect result.
3. When taking supernatant, it should avoid taking precipitation, otherwise it will block Adsorption Column and affect purity of product.
4. Volume of Elution Buffer shouldn't be less than 50µl, less volume will affect recovery efficiency. It is suggested to use Elution Buffer in kit, elution with water also loses a part of product. The DNA product should be kept at -20°C and avoid repeated freezing and thawing in case of degradation.
5. Avoid touching liquid reagents, in case of accidental contact, rinse immediately with plenty of water.