

DATA SHEET

Versions: 01

Revision date: 29/11/2023

1. Identification

Product name: DNA extraction kit from stool

Reactions: 50 rxns

Cat. No.: PRA-DNA-Stool

2. Description

To extract DNA from biological samples, it is essential to discard waste samples initially, followed by a thorough homogenization and subsequent cell lysis. In the case of stool samples, the initial portion, containing many impurities, is separated in the first step. The process involves utilizing Lysozyme enzymes and the necessary buffers for all cells, encompassing both gram-negative and positive bacteria, resulting in complete lightening of the sample. DNA binds to the filters as it passes through the columns containing Silica. After treatment with DNase/RNase Free water, the DNA sample is effectively separated from the filter.

3. Kit Contents

Component	Cat. no	Quantity
Lysozyme	PRA-L	1 ml
PRA Pre Lysis Solution	PRA- KPS	10 ml
PRA Lysis solution	PRA-KLS	25 ml
Precipitation solution	PRA-PS	15 ml
Carrier	PRA-CR	1 ml
Washing buffer	PRA-WB	25 ml
DNase free water	PRA-DW	5 ml
Filtered column tube	PRA-F-Column	50 pcs
High absorbance column tube	PRA-Column	50 pcs
Collection Tube	PRA-CT	100 pcs



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4. Storage specifications

The components of the DNA extraction kit from stool can be conveniently stored at room temperature.

5. Applications

Molecular Biology Applications:

- PCR
- PCR-Seq
- Southern Blot

6. Assay Procedure

DNA Extraction Protocol:

1. Add 400 microliters of PRA Lysis Buffer (PRA-KLS) to the previous step microtube and vortex it for 10 seconds.
2. Incubate the suspension at 65 °C for 5 minutes until the bacterial cells are fully lysed.
3. Centrifuge the microtube at a speed of 7,000 rpm for 3 minutes and transfer the supernatant to a 1.5 ml sterile microtube.
4. Add 10 µl of Carrier (PRA-CR) and vortex for 5 seconds.
5. Add 300 microliters Precipitation Solution (PRA-PP) and vortex for 5 seconds.
6. Transfer the entire tube contents to the DNA extraction column (PRA-Column) and centrifuge at 8000 rpm for 1 minute.



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7. Transfer the column to the new collection tube and add 500 µl of the washing buffer (PRA-WB) to the column. Centrifuge at 8000 rpm for 1 minute.

8. Discharge the contents of the collection tube, re-insert the column inside the collection tube, and centrifuge at 12,000 rpm for 1 minute without adding any solution.

9. Transfer the column to the new collection tube and add 50 µl of distilled water. Incubate for 4 minutes at room temperature. It is advisable to pre-warm distilled water to 65 °C.

10. Centrifuge the column at 12,000 rpm for 1 minute. The solution passed through the column contains DNA.

Note: To check the accuracy and amount of DNA drainage, be sure to measure the DNA OD at 260 and 280 nm wavelengths and ensure accuracy by electrophoresis.

7. Safety

The solutions used in the kit have oxidizing and acidic properties. Avoid direct contact with skin and eyes. In case of contact with the mentioned tissues, wash with plenty of water and seek medical attention at the nearest medical center.

8. Quality Certifications

The mentioned product has been approved for marketing in Islamic Republic of Iran

9. Further information

This product is developed, designed, and sold exclusively only for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.



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10. Other Kits

DNA Extraction Kits:

1. DNA extraction kits from blood and tissue by column
2. DNA extraction kits from gram-positive and negative bacteria
3. DNA extraction kit from mycobacterium
4. DNA extraction kit from Fungi
5. DNA extraction kit from virus
6. DNA extraction kit from HPV virus
7. DNA extraction kits from plant tissue

RNA Extraction Kits:

1. RNA extraction kits from blood and tissue
2. RNA extraction kits from gram-positive and negative bacteria
3. RNA extraction kit from mycobacterium
4. RNA extraction kit from Fungi
5. The RNA extraction kit from the virus
6. RNA extraction kits from plant tissue

NOTE

All products have been produced by Karmania Pars Gene company in Iran.

