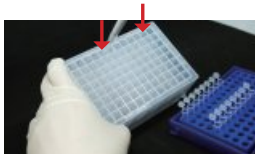
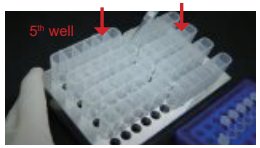
End of Run





Once extraction is completed, take plate/tube rack out of the system and collect nucleic acid from 5th/11th wells depending on where samples were dispensed. Transfer eluent into 1.5 ml or PCR tube. Amount of eluted buffer will be around 80 µl and it is ready to use.

Regular UV sterilization eliminates bacteria and virus, nucleic acid, hence it minimizes internal pollution within the system.
Before/after the extraction, touch UV lamp button. The sterilization process will continue for the set time.

Troubleshooting Guide

Problem	Causes	Comments and Suggestions
Physical damage of the kit	Upside down during transportation may cause beads to stick with sealing film	Spin down the plate or strip by hand before opening it.
	Sealing film is detached and reagent is spilled to other wells due to improper storage temperature	Spin down by hand and visually check the reagent volume. If reagent volumes are insufficient, extraction efficiency may decrease. Do not use it and contact customer service immediately.
Magnetic rod function failure	Stain on the magnetic rod	Ensure the magnetic rod covers are inserted properly before extraction. Clean magnetic rods using 70% concentration of ethanol with cloth.
System malfunction	System is not working	Make sure system is plugged. Refer to user manual of GENTi™ 32 Advanced Extraction System for further details.
	Liquid spilled and adhered to system	Use UV light for sterilization and then clean with 70% concentration of ethanol with cloth.
	Collision	Improperly attached plate/tube type cartridge or magnetic rod cover may cause collision (between cartridge-magnetic rod cover, cartridge-system component and magnetic rod cover-system component). Turn off the system and ensure that plate/tube type cartridges and magnetic rod covers are properly attached.

Storage Conditions

- Temperature : Room Temperature (15~25˚C)
- Humidity : 20~80%RH

Symbol	Used for	Symbol	Used for
LOT	Batch number		Manufacturer
REF	Catalogue number		Do not reuse
	Consult Instructions For Use		Date of Manufacture
	Caution		Expiry date
	Temperature limitation		

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GENEALL BIOTECHNOLOGY CO., LTD

2023.11
www.geneall.com

Ver 1.0

GeneAll®

Store at room temperature (15~25˚C)
Expiration date : 18 months after manufacture

GENTi™ ADVANCED
Fecal DNA/RNA Kit (Tube Type/Plate Type)

Description

The GENTi™ Advanced Fecal DNA/RNA Kit is designed for simple and efficient host genomic DNA, and pathogen nucleic acid extraction from fecal samples in conjunction with GENTi™ Advanced Equipment. Protocols for Fecal DNA/RNA extraction are available in either for medium throughput of 1 to 16 samples using the flexible 8-well tube or for high throughput of up to 32 samples using the 96-well plate.
The purified DNA is excellent quality and is suitable for various downstream applications, including PCR, qPCR, NGS and other molecular diagnostic testing.

Kit Contents

Components	Quantity	
	913-048A	913-096A
Number of Preparation	48 T	96 T
Type	Tube	Plate
Pre-filled with reagents	6 pks	6 pks
Magnetic rod cover (6 pcs/pk)	4 pks	2 pks
Proteinase K (48 mg) *	1 ea	2 ea
PK Storage buffer (4 ml)	1 ea	2 ea
Nuclease free water (1 ml)	1 ea	2 ea
2 ml Glass Bead tube (50 ea/pk)	1 pks	2 pks
Buffer FL (70 ml)	1 ea	2 ea

** Reconstitute the lyophilized Proteinase K by adding 2.4 ml of PK Storage Buffer before use. Store Proteinase K solution at -20~8˚C for long term stability.*

• 96 deep-well plate pre-filled with reagents

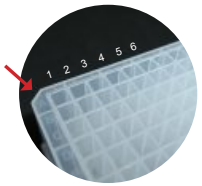
• 8-strip deep-well tube (8 ea/pk) pre-filled with reagents

• Disposable magnetic rod cover

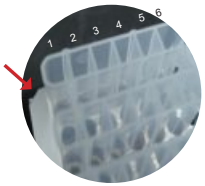
• Heating blocks

- Conical shape of the plate/tube type cartridge, magnetic rod cover and heating block
- Heating block designed with tight fit with conical materials for fast and efficient heat transfer

Brief Workflow



96 deep-well Plate



8 Strip deep-well tube

1 : Lysis well
2 : 1st washing well
3 : 2nd washing well
4 : 3rd washing well
5 : Elution well
6 : 4th washing well

- 6 consequent wells are aligned horizontally and each well contains specific reagents for extraction.
- 1st/7th wells contain lysis buffer which destroy cell membranes and bind target DNA with magnetic beads.
- Magnetic beads are located at 4th/10th wells until the extraction begin and move to first well by device once initiated.
- Elution buffer in 5th/11th wells detach target DNA from magnetic beads and complete extraction process.
- If particles are not visible in 4th/10th wells shake down the cartridge to dislodge particles that may have adhered to the seal material before removing the seal.

Protocol

Protocol	Uses and Purposes
P1 Protocol (10' 23")	• Rapid and effective extraction for PCR • Verifying the accuracy of confirmed positive samples
P2 Protocol (20' 47")	• High-quality and high-yield of nucleic acid extraction • Optimized for nucleic acid extraction from a variety of sample types

Preparation of Sample

Sample	Max. starting amount	Preparation
Fecal	0.2 g	1. Place 0.2 g of fecal sample to 2 ml Glass Bead tube (provided).
		2. Add 1 ml of Buffer FL and 25 µl of Proteinase K Solution (20 mg/ml). Vortex the mixture at least 1 minute.
		3. Incubate at 65˚C for 5 minutes.
		4. Centrifuge at 13,000 rpm (≥10,000 x g), for 5 minutes.
		5. Transfer 200 µl of the supernatant.

Heating block temperature

- P1 protocol

Heat Block	Lysis	Elution
Block Tm	65˚C	75˚C
Start step	-	Step 4
Stop step	Step 2	-

- P2 protocol

Heat Block	Lysis	Elution
Block Tm	65˚C	75˚C
Start step	-	Step 7
Stop step	Step 2	-

Equipment Run

1. Turn on the **'power switch'** located on the right rear of the GENTi™ 32 Advanced Automatic Extraction System.
2. Touch the **'RUN'** button when the home screen panel appears.
3. Select the **'Self Test'** at the File Browser menu and then touch the **'RUN'** button to run a self-test.
4. After self test completes, select the extraction protocol and then touch the **'RUN'** button for the protocol operation.
   If **'Warning'** message appears, check the system and touch the **'RUN'** button again.

Precautions for the use of GENTi™ Advanced Automatic Extraction System

Self-test
Automatic start self-test when the equipment is turned on.

Mounting the plate/tube type cartridge
Be careful when mounting the plate/tube type cartridge on the system and gently mount it.

Mounting magnetic rod cover
When installing the magnetic rod cover, push it to the end of system.

Preparation of 8-strip deep-well tube

Cut the tube as much as necessary and install it in the GENTi™ Advanced Tube Rack.

Preparation of 96 deep-well plate

1. **Peel back the seal of pre-filled reagents plate or tube.**
2. **Dispense 200 µl of samples to 1st (7th) well.**
3. **Load plate or tube rack onto the tray of GENTi™ Advanced equipment.**
   *** Note : Ensure that the diagonally cut edge of tube rack faces the top left of the heating block and verify that the tube rack is evenly placed.**
4. **Insert magnetic rod cover to the end to strip bracket.**
   *** Note : Ensure that magnetic rod cover is in the correct position.**