FavorPrep™ Tissue Genomic DNA Extraction HC Mini Kit

■ Kit Contents

Cat. No.	FATG103-004 (4 Preps)	FATG103-050 (50 Preps)	FATG103-100 (100 Preps)
FATG1 Buffer	1.5 ml	20 ml	40 ml
FATG2 Buffer (Concentrate) ▲	1.5 ml	20 ml	40 ml
W1 Buffer (Concentrate) ■	1.3 ml x 2	22 ml	44 ml
Elution Buffer	0.5 ml	5 ml	7 ml
Proteinase K (Liquid)	150 µl	1600 µl	1600 µl x 2
FATG HC Column	4 pcs	50 pcs	50 pcs x 2
Collection Tube	8 pcs	100 pcs	100 pcs x 2
Elution Tube	4 pcs	50 pcs	100 pcs
Micropestle	4 pcs	50 pcs	50 pcs x 2
User Manual	1	1	1
Preparation of **FATG2 Buffer** and **W1 Buffer** by adding 96~100% ethanol.			
Volume of Ethanol for FATG2 Buffer ▲	1.5 ml	20 ml	40 ml
Volume of Ethanol for W1 Buffer ■	0.5 ml	8 ml	16 ml

All kit components are shipped at room temperature and should be stored at room temperatures between 15~25°C.

■ Specification

Format/Principle	Spin Column (silica matrix)
Binding Capacity	≤125 µg DNA/Column
Operation Time	<45 mins
Sample Size	≤30 mg Tissue
DNA yield	≤30 µg
Elution Volume	30~60 µl

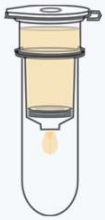
■ Procedure Overview

Sample

- Cut the tissue (up to 30 mg) into a 1.5 ml tube.
- Grind sample with 360 µl FATG1-PK mixture using micropestle or homogenizer.
- (Optional) Add RNase A, incubate sample at room temperature for 2 mins.
- Incubation at 56℃ for 10 mins.

- Add 660 µl FATG2 Buffer (ethanol contained).
- Mix thoroughly by pulse-vortexing.

FATG HC Column



Centrifuge
12,000 xg, 1 min

- Transfer all the mixture into FATG HC Column for DNA binding.

Centrifuge
12,000 xg, 1 min

- Add 500 µl W1 Buffer (ethanol contained).
- Add 900 µl ethanol (96~100%).

Centrifuge
12,000 xg, 2 mins

- Drying the column membrane.

Centrifuge
12,000 xg, 2 mins

- Elution (add 30~60 µl Elution Buffer).
- Stand the column for 5 mins at room temperature.

- Obtain purified genomic DNA.

Preparation Before Starting

1. Add indicated volume of ethanol (96~100%) into **FATG2 Buffer** and **W1 Buffer**, mix well and store at room temperature.
2. Check **FATG1 Buffer** for precipitates before use. If precipitates are observed, warm-up FATG1 Buffer at 37˚C until precipitates are completely dissolved.
3. Additional materials: 96~100% ethanol, RNase A (Optional).
4. Set up a water bath or dry bath at 56˚C and preheat the Elution Buffer to 56˚C for elution step.
5. All centrifugation steps should be performed at **12,000 ×g** at room temperature.
6. Fresh preparation of **FATG1-PK mixture**, premix 330 µl FATG1 Buffer, 30 µl Proteinase K and 8 µl of 50 mg/ml RNase A (Optional, If RNA-free genomic DNA is required) per sample before execute DNA extraction.

General Protocol

1. Cut tissue sample (up to 30 mg) in a microcentrifuge tube (not provided). Add 360 µl **FATG1-PK mixture** to the tube.
2. Use provided **Micropestle** or homogenizer to grind the tissue sample. Mix thoroughly and spin down.
3. **(Optional)** If RNase A was added, incubate sample at room temperature for 2 mins.
4. Incubate mixture at 56˚C for 10 mins until the tissue is lysed completely. Vortex occasionally during incubation.
5. Add 660 µl **FATG2 Buffer** (ethanol contained) to the sample mixture, mix thoroughly by pulse-vortexing.
6. Placed a **FATG HC Column** in a **Collection Tube**, then transfer all mixture carefully into the FATG HC Column.
7. Centrifuge for 1 min. Discard flow-through and place the FATG HC Column in a new Collection Tube.
8. Add 500 µl **W1 Buffer** (ethanol contained) to the FATG HC Column. Centrifuge for 1 min then discard flow-through.
9. Add 900 µl **ethanol** (96~100%) to the FATG HC Column. Centrifuge for 1 min then discard flow-through.
10. Centrifuge for 2 mins to dry the membrane. Discard flow-through and collection tube.
11. Place the **FATG HC Column** in an **Elution Tube**, then add 30 µl prewarmed **Elution Buffer** or ddH_2O (pH 7.5~9.0) directly onto the membrane. Stand the FATG HC Column for 5 mins.
    - **Important step!** For effective elution, ensure that the elution solution is dispensed onto the membrane center and absorbed completely.
12. Centrifuge for 2 mins to elute DNA.

For more product information, please visit **https://www.favorgen.com/**
For technical assistance, please email us at **Technical@favorgen.com**