

## Kit Contents:

	FAGDC001	FAGDC001-1
GC Buffer	30 ml	120 ml
Wash Buffer* (concentrated)	10 ml	40 ml
Elution Buffer	15 ml	50 ml
GC Column	50 pcs	200 pcs
Collection Tube	50 pcs	200 pcs
Elution Tube	50 pcs	200 pcs

\*For FAGDC001, add 40 ml ethanol (96-100%) to Wash Buffer when first open. For FAGDC001-1, add 160 ml ethanol (96-100%) to Wash Buffer when first open.

## Specification:

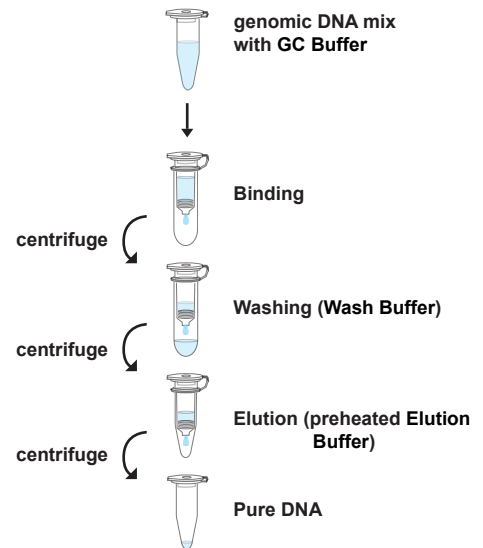
**Sampling:** up to 100 µl of genomic DNA (containing up to 50 µg of genomic DNA)

**Recovery :** 80-95%.

**Binding capacity:** 50 µg

**Volume of eluate :** 50 ~200 µl

**Handling Time:** Within 15 min



## Important Notes:

1. Buffers provided in this system contain irritants. Wear gloves and lab coat when handling these buffer.
2. Add ethanol (96~100%) to Wash Buffer when first open.
3. Heat the Elution Buffer to 65 °C for step 9.
4. All centrifuge steps are done at full speed (14,000 rpm or 10,000 x g) in a microcentrifuge.

## General Protocol:

1. Transfer 100 µl of genomic DNA (containing up to 50 µg of genomic DNA) to a microcentrifuge tube (not provided) and add 500 µl of GC Buffer, mix well by vortexing.
  - If the volume of genomic DNA is less than 100 µl, add ddH<sub>2</sub>O to a final volume of 100 µl.
2. Place a GC Column into a Collection Tube and transfer the sample mixture to the GC Column.
3. Centrifuge for 1 min.
4. Discard the flow-through and place the GC Column back to the Collection Tube.
5. Add 750 µl of Wash Buffer (ethanol added) to the GC Column. Centrifuge for 1 min.
  - Make sure that ethanol (96~100%) has been added into Wash Buffer when first open.

6. Discard the flow-through and place the GC Column back to the Collection Tube.

7. Centrifuge for an additional 3 min to dry the GC Column.

-**Important step!** This step will avoid the residual liquid to inhibit subsequent enzymatic reactions.

8. Place the GC Column into a Elution Tube (provided).

9. Add 50~200 µl of preheated Elution Buffer or ddH<sub>2</sub>O (pH 7.0~8.5) to the membrane center of the GC Column. And stand the GC Column for 2 minutes.

-**Important step!** For effective elution, make sure that the elution solution is dispensed onto the membrane center and is absorbed completely.

10. Centrifuge for 1 min to elute the DNA.

## Troubleshooting

Problems	Possible reasons	Solutions
Low or none recovery of genomic DNA	Apply more than 100 µl of genomic DNA	If the volume of genomic DNA is more than 100 µl, separate it into multiple tubes.
	Elution of genomic DNA is not efficient	Make sure the pH of Elution Buffer or ddH <sub>2</sub> O is between 7.0- 8.5.
		Make sure that the elution solution has been completely absorbed by the column membrane before centrifugation.
		Make sure that the elution solution is preheated to 65 °C before use.
Poor performance in the downstream applications	Salt residue remains in eluted DNA	Wash the column twice with Wash Buffer.
	Ethanol residue remains in eluted DNA	Do discard the flow-through after washing with Wash Buffer and centrifuge for an additional 3 min.