

## Kit Contents:

Cat. No:	FAGDC 000 (4 preps)	FAGDC 001 (50 preps)	FAGDC 001-1 (200 preps)
GC Buffer	1.5 ml × 2	30 ml	120 ml
Wash Buffer * (Concentrate)	1 ml	10 ml	40 ml
Elution Buffer	1.5 ml	10 ml	50 ml
GC Column	4 pcs	50 pcs	200 pcs
Collection Tube	4 pcs	50 pcs	200 pcs
Elution Tube	4 pcs	50 pcs	200 pcs
User Manual	1	1	1
Preparation of Wash Buffer by adding ethanol (96~100%)			
Ethanol volume for Wash Buffer *	4 ml	40 ml	160 ml

## Specification:

**Sampling:** up to 100 µl of genomic DNA (containing up to 60 µg of genomic DNA)

**Recovery :** 80~95%

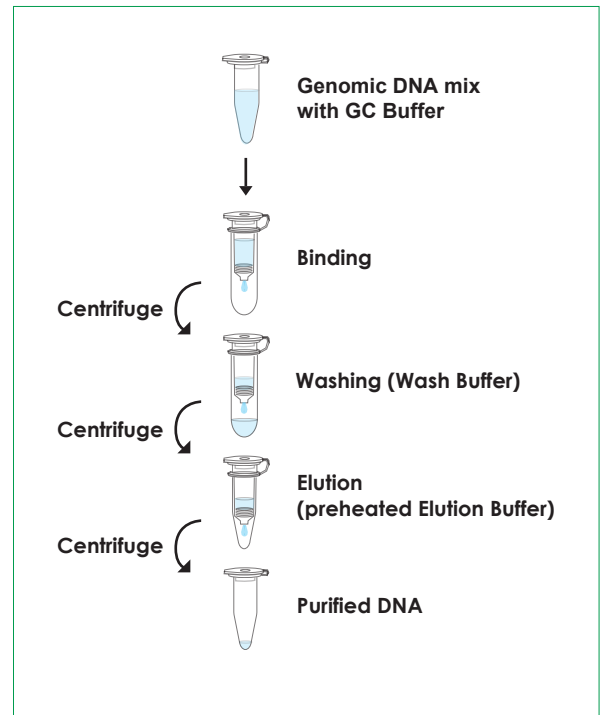
**Binding capacity:** ≤60 µg/column

**Volume of eluate :** 50~200 µl

**Handling Time:** Within 15 mins

## 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 at the 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 xg) in a microcentrifuge.



## General Protocol:

1. Transfer 100 µl of genomic DNA (containing up to 60 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 at the first open.

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

7. Centrifuge for an additional 3 mins 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  $\mu$ l of preheated Elution Buffer or ddH<sub>2</sub>O (pH 7.0~8.5) to the membrane center of the GC Column. Stand the GC Column for 2 mins.

-**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 $\mu$ l of genomic DNA	If the volume of genomic DNA is more than 100 $\mu$ l, 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 mins.