

Kit Contents:

Cat. No:	APBGK 004 (4 preps_sample)	APBGK 050 (50 preps)	APBGK 100 (100 preps)	APBGK 200 (200 preps)
BG Buffer	1.5 ml	15 ml	30 ml	60 ml
GW Buffer (concentrate) ^a	1.3 ml	22 ml	44 ml	88 ml
Wash Buffer (concentrate) ^b	1.0 ml	10 ml	20 ml	40 ml
Elution Buffer	1.0 ml	15 ml	30 ml	60 ml
Proteinase K ^c	1.0 mg	11 mg	11 mg x 2	11 mg x 4
BG Mini Column	4 pcs	50 pcs	100 pcs	200 pcs
Collection Tube	8 pcs	100 pcs	200 pcs	400 pcs
Elution Tube	4 pcs	50 pcs	100 pcs	200 pcs
User Manual	1	1	1	1
Preparation of GW Buffer, Wash Buffer and proteinase K solution for first use:				
Ethanol volume for GW Buffer ^a	0.5 ml	8 ml	16 ml	32 ml
Ethanol volume for Wash Buffer ^b	4 ml	40 ml	80 ml	160 ml
ddH ₂ O volume for Proteinase K ^c	0.1 ml	1.1 ml		

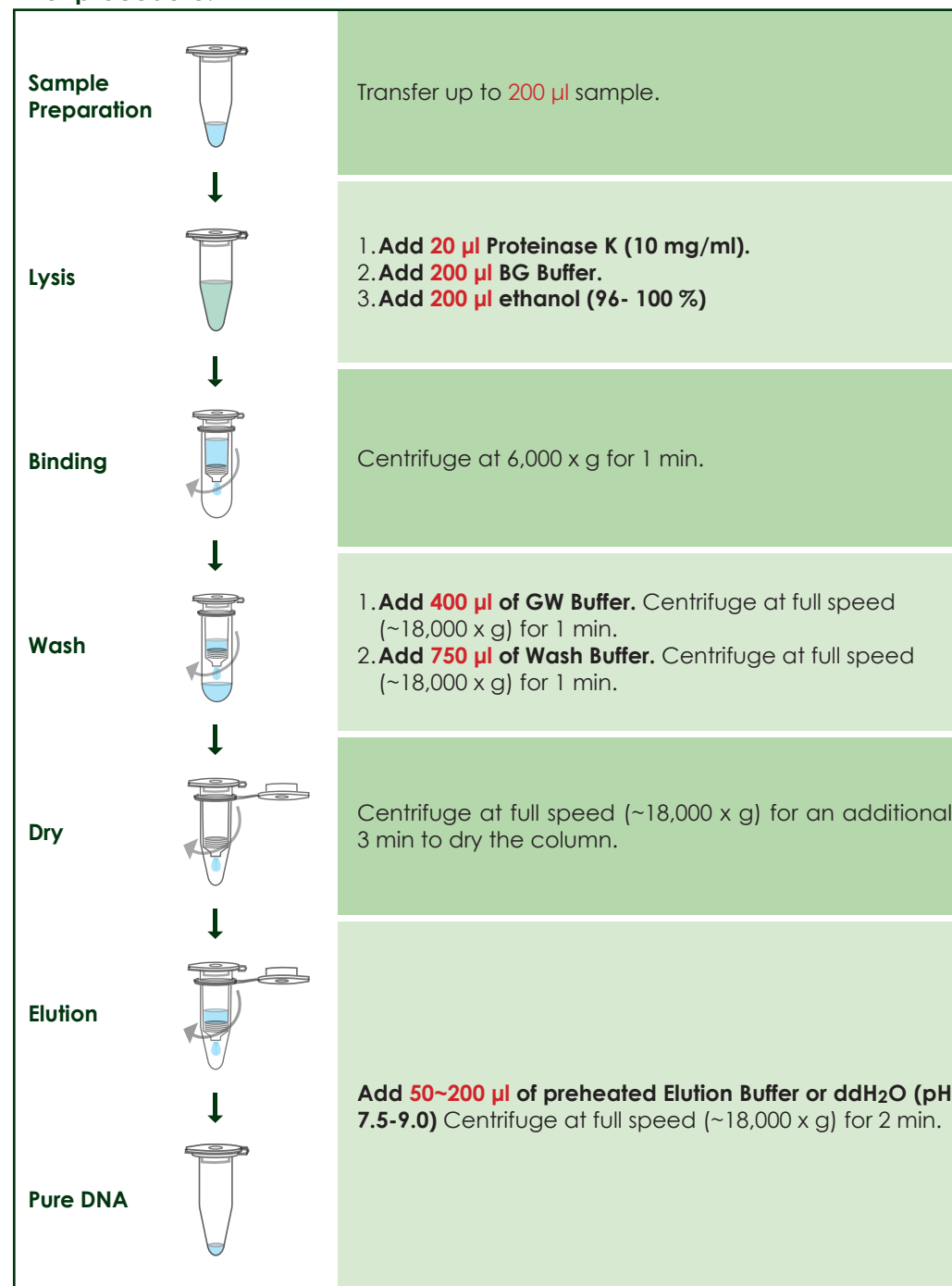
Specification:

Principle:	mini spin column (silica matrix)
Sample size:	1. Up to 200 μ l whole blood, serum, plasma, body fluids. 2. Up to 5 x 10 ⁶ cultured cells.
Operation time:	30 ~ 60 minutes
Binding capacity:	up to 60 μ g total DNA / column
Expected yield:	4 ~ 8 μ g / prep
Column applicability:	centrifugation and vacuum
Minimum elution volume:	50 μ l

Important Notes:

1. Buffers provided in this system contain irritants. Wear gloves and lab coat when handling these buffers.
2. **Add 1.1 ml sterile ddH₂O** to Proteinase K tube to make a 10 mg/ml stock solution. Make sure that Proteinase K has been completely dissolved. Store the stock solution at 4 °C .
3. **Add ethanol (96- 100 %)** to **GW Buffer** and Wash Buffer when first open.
4. Prepare dry baths or water baths before the operation.
One to 60°C for step 2. Lysis.

Brief procedure:



General Protocol

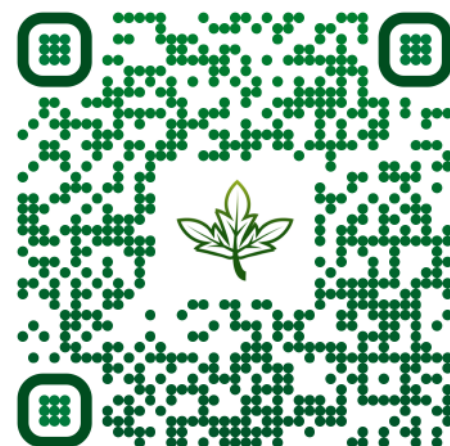
Please Read Important Notes Before Starting Following Steps.

STEP	PROCEDURE
1 Sample preparation	Transfer up to 200 µl sample (whole blood, serum, plasma, body fluids, buffy coat) to a microcentrifuge tube (not provided). Note : If the sample volume is less than 200 µl , add the appropriate volume of PBS. Optional : If RNA-free genomic DNA is required, add 4 µl of 100 mg/ml RNase A to the sample and incubate for 2 min at roomtemperature.
2 Lysis	1. Add 20 µl Proteinase K . 2. Add 200 µl BG Buffer . Mix thoroughly by pulse-vortexing. 3. Incubate at 60 °C for 15 minutes to lyse the sample. During incubation, vortex the sample every 3-5 minutes. 4. Briefly spin the tube to remove drops from the inside of the lid.
3 Ethanol Dilution	Add 200 µl ethanol (96-100%) to the sample mixture. Mix immediately and thoroughly by vortexing to yield a homogeneous solution.
4 DNA Binding	1. Place a BG Mini Column to a Collection Tube. 2. Transfer the mixture (including any precipitate) carefully to the BG Mini Column. 3. Centrifuge at 6,000 x g for 1 min then place BG Mini Column to a new Collection Tube.
5.1 Wash	Add 400 µl GW Buffer to the BG Mini Column. Centrifuge at full speed for 1 min then discard flow-through.
5.2 Wash	Add 750 µl Wash Buffer to the BG Mini Column. Centrifuge at full speed for 1 min then discard flow-through.
6 Dry column	Centrifuge the BG Mini Column at full speed for an additional 3 min to dry the BG Mini Column.
7 DNA Elution	1. Add 50 ~ 200 µl of preheated Elution Buffer or ddH ₂ O (pH 7.5-9.0) to the membrane of the BG Mini Column. Stand the BG Mini Column for 3 min. 2. Centrifuge at full speed for 2 min to elute DNA.

Special Protocol : The sample preparation For Animal Cultured Cells

Additional requirement	1. RNase A (optional). 2. 96~100% ethanol. 3. trypsin or cell scraper (for monolayer cell). 4. PBS
Method	Harvest cells 1. For Cells grown in suspension a. Transfer the appropriate number of cell (up to 5×10^6) to a microcentrifuge tube. b. Centrifuge at 300 x g for 5 min. Discard supernatant carefully and completely. For Cells grown in monolayer a. Detach cells from the dish or flask by trypsinization or using a cell scraper. Transfer the appropriate number of cell (up to 5×10^6) to a microcentrifuge tube. b. Centrifuge at 300 x g for 5 min. Discard supernatant carefully and completely. 2. Resuspend cell pellet in PBS to a final volume of 200 µl . 3. Follow the Animal Tissue Protocol starting from step 2 Lysis.

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