FavorPrep™ PCR Clean-Up Mini Kit

- For purification of PCR products or reaction mixtures (concentration and desalination of reaction mixtures)

Cat. No.: FAPCK 000
FAPCK 001
FAPCK 001-1
FAPCK 001-2

(For Research Use Only)

Kit Contents:

Cat. No:	FAPCK 000 (4 preps_sample)	FAPCK 001 (50 preps)	FAPCK 001-1 (200 preps)	FAPCK 001-2 (300 preps)
FAPC Buffer	3 ml	30 ml	110 ml	180 ml
Wash Buffer (concentrate)[a]	1 ml	12.5 ml	45 ml	50 ml x 2
Elution Buffer	0.5 ml	5 ml	20 ml	20 ml
FAPC Column	4 pcs	50 pcs	200 pcs	300 pcs
Collection Tube	4 pcs	50 pcs	200 pcs	300 pcs
Elution Tube	4 pcs	50 pcs	200 pcs	300 pcs
User Manual	1	1	1	1
Preparation of Wash Buffer by adding ethanol (96 ~ 100%)				
Ethanol volume for Wash Buffer[a]	4 ml	50 ml	180 ml	200 ml

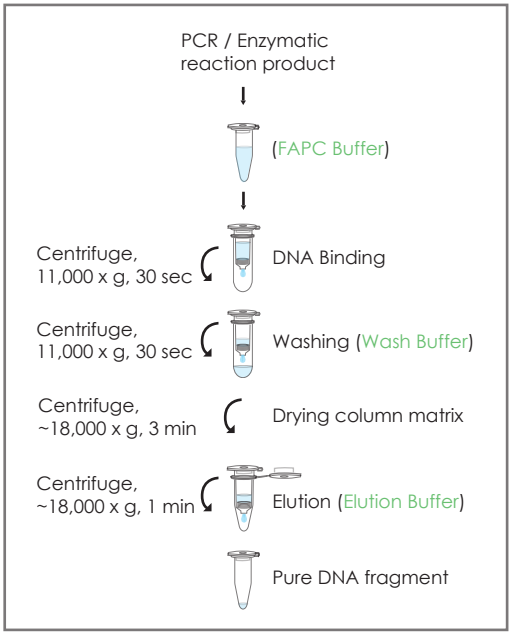
Specification:

Principle: spin column (silica matrix)
DNA Binding capacity of spin column: 20 µg
Sample size: up to 100 µl of reaction solution
DNA size: 65 bp ~ 10 kbp
Recovery: 85% ~ 95% for PCR clean-up
Operation time: ≤ 15 min
Elution volume: ≥ 20 µl

Important Notes:

1. Buffer provided in this kit contain irritants. Wear gloves and lab coat when handling these buffer.
2. Add the required volume of ethanol (96~100%) to Wash Buffer before use.
3. For concentration or purification of DNA fragments from enzymatic reactions, the maximum sample volume is 100 µl and the maximum amount of DNA fragments is 5 µg.
4. Centrifugation steps are done by a microcentrifuge capable of the speed at 11,000 ~18,000 x g.

Brief procedure:



General Protocol:

Please Read Important Notes Before Starting Following Steps.

1. **Transfer 10 ~ 100 µl of PCR product (excluding oil) to a microcentrifuge tube (not provided) and add 5 volumes of FAPC Buffer, mix well by vortexing.**
   - For example, Add 250 µl of FAPC Buffer to 50 µl of PCR product.
   - The maximum volume of PCR product is 100 µl (excluding oil). Do not excess this limit. If PCR product is more than 100 µl, separate it into multiple tubes.

2. **Place a FAPC column into a Collection Tube.**

3. **Transfer the sample mixture to the FAPC Column. Centrifuge at 11,000 x g for 30 seconds, then discard the flow-through.**

4. **Add 600 µl of Wash Buffer (ethanol added) to the FAPC Column. Centrifuge at 11,000 x g for 30 seconds, then discard the flow-through.**
   - Make sure that ethanol (96-100 %) has been added into Wash Buffer when first open.

5. **Centrifuge again at full speed (~18,000 x g) for an additional 3 minutes to dry the column matrix.**
   - **Important step !** The residual liquid should be removed thoroughly on this step.

6. **Place the FAPC Column to a Elution Tube. (provided)**

7. **Add ≥ 20 µl µl of Elution Buffer or ddH_2O to the membrane center of the FAPC Column. Stand the FAPC Column for 1 min.**
   - **Important step !** For effective elution, make sure that the elution solution is dispensed onto the membrane center and is absorbed completely.
   - ***Important :*** *Do not elute the DNA using less than suggested volume (20 µl). It will lower the final yield.*

8. **Centrifuge at full speed (~18,000 x g) for 1 min to elute DNA.**

Troubleshooting

Problems	Possible reasons	Solutions
Low or none recovery of DNA fragment	Apply more than 100 µl of PCR product	If PCR product is more than 100 µl, separate it into multiple tubes.
	Elution of DNA fragment is not efficient	Make sure the pH of Elution Buffer or ddH_2O is between 7.0- 8.5.
		Make sure that the elution solution has been completely absorbed by the column membrane before centrifugation.
	The size of DNA fragment is larger than 5 Kb	Preheat the elution solution to 60 °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.