

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) | 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: $20 \mu g$ Sample size: up to $100 \mu l$ of reaction solution

DNA size: 65 bp ~ 10 kbp

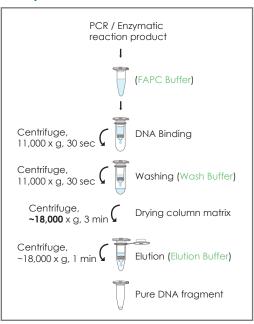
Recovery: 85% ~ 95% for PCR clean-up

Operation time: ≤ 15 min Elution volume: 40 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 concentraction 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 ~1,8000 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 (\sim 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 40 µl of Elution Buffer or ddH2O 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 (40 µl). It will lower the final yield.
- 8. Centrifuge at full speed (\sim 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 ₂ O 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 perfor- mance 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. |