

Kit Contents:

| Cat. No: | FAMPK 000B (4 preps_sample) | FAMPK 001B (50 preps) | FAMPK 001-1B (100 preps) |
|--|--------------------------------|--------------------------|-----------------------------|
| MP Buffer | 3ml | 30ml | 60ml |
| Wash Buffer (concentrate) ^a | 1 ml | 12.5ml | 22.5ml |
| Elution Buffer | 0.5 ml | 5ml | 5 ml |
| MP Columns * | 4 pcs | 10 pcs x 5 | 10 pcs x 10 |
| Collection Tubes User | 4 pcs | 50 pcs | 100 pcs |
| Manual | 1 | 1 | 1 |
| Preparation of Wash Buffer by adding ethanol (96 ~ 100%) | | | |
| Ethanol volume for Wash Buffer ^a | 4 ml | 50 ml | 90 ml |

*Store the MP Columns to 4 ~ 8 °C upon receipt.

Specification:

Principle: spin column (silica matrix)
 DNA Binding capacity of spin column: 5 µg
 Sample size: up to 100 µl of reaction solution
 DNA size: 65 bp ~ 10 kbp
 Recovery: 80% ~ 90% for PCR clean-up
 Operation time: 10 min
 Elution volume: 10 ~ 12 µl

Important Notes:

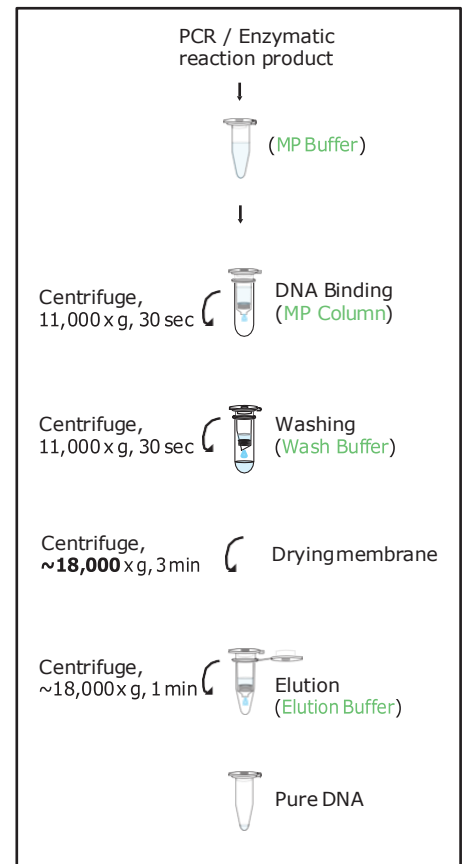
1. Buffer provided in this kit contain irritants. Wear gloves and lab coat when handling these buffer.
2. Add the required volume of ethanol (96~100%) to Wash Buffer before use.
3. Centrifugation steps are done by a microcentrifuge capable of the speed at 11,000 ~ 1,8000 x g.

Protocol:

Please Read Important Notes Before Starting Following Steps.

1. Transfer 10~100 µl of PCR (or enzymatic product) and 5 volumes of MP Buffer to a 1.5 ml microcentrifuge tube (not provided). Mix by vortexing.
 - For example, Add 250 µl of MP Buffer to 50 µl of PCR product.
Note For concentration and purification of DNA from enzymatic reactions, the limits of sample volume and DNA amount are 100 µl and 5 µg.
2. Place a MP Column to a Collection Tube. And transfer the sample mixture to the MP Column.
3. Centrifuge for 1 min then discard the flow-through.
4. Add 600 µl of Wash Buffer (ethanol added) to the MP Column. Centrifuge for 1 min then discard the flow-through.
 - Make sure that ethanol (96~100%) has been added to Wash Buffer when first open.
5. Centrifuge for an additional 3 min to dry the MP column.
Important step! The residual liquid should be removed completely by this step.
6. Place the MP Column into a new 1.5 ml microcentrifuge tube (not provided).
7. Add 10~12 µl of Elution Buffer or ddH₂O (pH 7.0~8.5) to the membrane center of the MP Column. Stand the MP Column for 2 min.
Important step! For effective elution, make sure that the elution solution is dispensed onto the membrane center and is absorbed completely.
8. Centrifuge for 1 min to elute DNA.
 - The average eluate volume is 9 µl from 10 µl elution buffer volume.

Brief procedure:



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 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. |