

Your Favorite Partner

## FavorPrep<sup>™</sup> Plasmid DNA Extraction Kit

The FavorPrep<sup>™</sup> Plasmid Extraction Kit provide a rapid, phenol-free method for the extraction of high-purity plasmid DNA from bacterial cultures such as E. coli, which bacteria is pellet, lysed, and then neutralized. The extracted DNA can be used in a variety of applications such as PCR, cloning, sequencing, in vitro transcription, and labeling. Also, as a column-type tube is utilized in the purification process, extraction is carried out in three simple steps of binding/washing/elution. Once bound, the DNA is washed and then eluted from the column, ready for use.

## Features

- **\star** For high yields of plasmid DNA-up to 20µg from 1~5ml overnight cultures.
- $\star$  Effective purification of DNA fragments ranging from 100bp to 12+kb.
- ★ No need for messy resin slurries, extracting with phenol, or concentrating via alcohol precipitation.
- $\star$  Superior purity-DNA yields quality sequence data using automated or manual methods.
- $\star$  Optimized buffers are included for maximum DNA purity and yield.
- ★ Versatile protocol-works with all neutral gel buffers and both conventional and low-melt agarose gel.

#### **Downstream Applications**

- ★ Sequencing
- ★ Ligation
- ★ Restriction enzyme digestion
- ★ Transformation

#### **Important Notes**

- 1. Buffers provided in this system contain irritants. Wear gloves and lab coat when handling these buffers.
- 2. For this kit, please add 140 ml ethanol (96-100%) to wash 2 buffer when first open.
- 3. Check PDE Buffer 2 before use. Warm PDE Buffer 2 at 55℃ for 10 min if any precipitate formed. Don't shake PDE Buffer 2 vigorously.
- 4. To avoid acidification of PDE Buffer 2 from  $CO_2$  in the air, close the bottle immediately after use.
- 5. All centrifuge steps are done at full speed (14,000 rpm or 10,000 x g) in a micro-centrifuge.
- 6. Briefly spin RNase tube to remove drops from the inside of the lid. Add 1 ml of PDE Buffer 1 into RNase tube and mix well. Transfer the mixture into PDE Buffer 1 bottle and store at 4°C.

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# **General Protocol**

Please read Important Notes before starting the following steps.

- 1. Transfer 1~5 ml well-grown bacterial culture to a micro-centrifuge tube (provided by user).
- 2. Descend the bacterial cells by centrifuging for 2 min and discard the supernatant completely.
- Add 250µl of PDE Buffer 1 to the pellet and re-suspend the cells completely by pipetting. (Make sure that RNase has been added into PDE Buffer 1 when first open. No cell pellet should be visible after re-suspension of the cells.)
- Add 250µl of PDE Buffer 2 and gently invert the tube 5 times to lyse the cells (Do not vortex, vortex may shear genomic DNA and lead to contaminate plasmid DNA. If necessary, continue inverting the tube until the lysate becomes clear and viscous, but do not over 5 min.)
- Add 350µl of PDE Buffer 3 and invert the tube 5 times immediately but gently. (Invert immediately after adding PDE Buffer 3 will avoid asymmetric precipitation.)
- 6. Centrifuge for 10 min.
- 7. Transfer the supernatant carefully to Favorgen PDE Column Set. Centrifuge for 1 min then discard the flow-through.

(Do not transfer any white pellet into the column to avoid blocking the column.)

- 8. Add 500 $\mu l$  of Wash Buffer 1 to wash PDE Column. Centrifuge for 1 min then discard the flow-through.
- Add 700µl of Wash Buffer 2 to PDE Column. Centrifuge for 1 min then discard the flow-through. (Make sure that ethanol has been added into Wash Buffer 2 when first open)
- Centrifuge for an additional 3 min to dry the column. (Important Step! The residual liquid can affect the quality of DNA and inhibit subsequent enzymatic reactions.)
- 11. Place PDE Column to Elution Tube.
- Add 50µl of Elution buffer or ddH2O (pH 7.0-8.5) to the membrane center of PDE Column. Stand PDE Column for 1 min.

(Important Step! For effective elution, make sure that the elution solution is dispensed on the membrane center and is absorbed completely.)

- 13. Centrifuge for 2 min to elute plasmid DNA.
- 14. Store plasmid DNA at 4°C or 20°C

# Storage Condition

FavorPrep<sup>™</sup> Plasmid DNA Extraction Kit can be stored at room temperature (15-25°C). After adding RNase A, PDE Buffer1, should be stored at 4°C and is stable for six months. Other buffers and columns can be stored dry for up to 1 year at room temperature (15-25°C).

## Caution

PDE Buffer 3 contains guanidine hydrochloride which could be harmful and irritant for user. Please take necessary precautions such as wearing a lab coat, disposable gloves, and protective goggles.

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## **Kit Contents**

Kit contents				
Cat. No.	Product Name	Size	Kit Contents	
FAPDE 001	FavorPrep <sup>™</sup> Plasmid DNA	200 preps.	1. PDE Buffer 1	60ml
	Extraction Kit		2. PDE Buffer 2	70ml
			3. PED Buffer 3	85ml
			4. Wash Buffer1	125ml
			5. Wash Buffer 2	35ml
			6. Elution Buffer	15ml
			7. RNase (100 mg/ml)	0.030ml
			8. PDE Column	200 preps
			9. Collection Tube	200 tubes
			10. Elution Tube	200 tubes

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