Axen™ PCR DNA Kit

Product description

Axen™ PCR DNA Kit provides a simple and rapid method for purification of DNA from PCR or enzymatic reactions in just 6 minutes. Purified DNA can be directly used in ligation, labeling, sequencing, PCR, and many other downstream applications without further manipulation.

Kit contents

Contents*			Storage conditions
Cat. No.	**MG-P-002-50**	**MG-P-002-200**	
No. of preparation	50	200	
Mini column and Collecting tube	50 ea	200 ea	Room Temperature
Buffer PB**	30 mL	110 mL	
Buffer NW (Concentrates***)	10 mL	40 mL	
Buffer EB****	15 mL	30 mL	

* All components of this kit should be stored at room temperature (15~25°C). Long exposure to heat source can deteriorate the performance of kit significantly.

** During shipment or storage under cold ambient condition, a precipitate can be formed in buffer PB. Heat the bottle at 20~40°C to dissolve completely in such a case.

*** Buffer NW is provided as concentrates. Ethanol must be added before first use as the indication on the bottle label.

**** 10mM Tris-HCl, pH 8.5

Product use limitations

Axen™ PCR DNA Kit is intended for research uses only. This kit is not intended for diagnosis or treatment for human. All due care and attention should be exercised in the handling of the products.

Safety information

Axen™ PCR DNA Kit contains irritants which are harmful when in contact with skin or eyes, or inhaled or swallowed. Care should be taken when handling this product. Always wear gloves and eye protection, and follow standard safety precautions.

Buffer PB contains chaotropes which can form highly reactive compounds when combined with bleach. Do NOT add bleach or acidic solutions directly to the sample-preparation waste.

Procedure for purification of DNA amplicon

To check before start

- Prepare water bath or dry bath at 50˚C
- Required consumables; 1.5 mL centrifuge tube
- Do not use the precipitated buffers. If a precipitate forms in a buffer, dissolve completely at 20~40°C before use.

!!! Before first use, add the indicated volume of absolute ethanol to buffer NW as below table.

Buffer name	Included in	Volume of Contents	**Ethanol to be added**	The final volume
NW	MG-P-002-50	10 mL	**40 mL**	50 mL
	MG-P-002-200	40 mL	**160 mL**	200 mL

1. **Add 5 volumes of buffer PB for 1 volume of a sample and vortex to mix completely.**
   - For example, apply 500 uL of buffer PB for 100 uL of sample.
2. **Transfer up to 700 uL of the mixture to a spin column by decanting or pipetting.**
3. **Centrifuge for 30 secs at 13,000 xg. Remove the spin column, discard the pass-through, and insert the column back into the collection tube.**
   - *If the mixtures are remained, repeat the step 2~3 with them.*
4. **Apply 700 uL of buffer NW into the column and centrifuge for 30 secs at 13,000 xg.**
5. **Remove the spin column, discard the pass-through, and insert the column back into the collection tube.**
6. **Centrifuge for 1 min at 13,000xg for drying the membrane and transfer the spin column into a new 1.5 mL tube.**

7. **Apply 50 uL of buffer EB or sterile water to the center of spin column membrane and let it stand for 1 min.**
   - *Ensure that the buffer EB or nuclease-free water is dispensed directly onto the center of spin column membrane for optimal elution of DNA.*
   - *The eluent volume can be increased to 200 uL for maximum recovery, but it will decrease the concentration of DNA. The eluent volume should not be lower than 30 uL, because the smaller volume cannot soak the membrane entirely.*
8. **Centrifuge at 13,000 xg for 1 min for eluting the DNA.**

Trouble shooting guide

Facts	*Possible causes*	Recommendations
Low or no recovery	*Improper eluent*	An eluent other than buffer EB can be employed as user's needs. The optimal eluting condition should be under low salt concentration with alkaline pH (7.0<pH<9.0). When water or other buffer was used as eluent, ensure that condition.
	Ethanol was not added to the buffer	Buffer NW is provided as concentrate. Ethanol must be added to these buffers before first use. Otherwise, the result will be significantly poor.
Non-specific band appears	*DNA denatured*	Re-nature the DNA by warming up to 95˚C for 1 minute and let cool slowly to room temperature.
DNA floats out while loading on agarose gel	*Residual ethanol in eluate*	Ensure that the wash step on the protocol is performed properly. The spin column membrane should be dried completely before eluting DNA. Perform an additional centrifugation to dry the membrane, if needed.
Enzymatic reaction is not performed well with purified DNA	*High salt concentration in eluate*	Ensure that wash step is carried out just in accordance with the protocols. Additional wash step may help to remove high salt in eluate.
	Residual ethanol in eluate	Ensure that the wash step on the protocol is performed properly. The spin column membrane should be dried completely before eluting DNA. Perform an additional centrifugation to dry the membrane, if needed.