Dokdo-Prep™ Blood Genomic DNA Purification Kit

User Manual

Cat no. EBD-1008

Storage Conditions : Room Temperature
For Research Use Only

Technical Services:
e-mail : elpis@elpisbio.com
www.elpisbio.com

㈜ 엘피스바이오텍
ELPIS BIOTECH

Overview

The Dokdo-Prep™ Blood Genomic DNA Purification Kit is designed for rapid isolation of highly qualified genomic DNA from whole blood cells (for blood). It provides a fast, simple and inexpensive method without expensive equipments and hazardous reagents. The Dokdo-Prep™ Blood Genomic DNA Purification Kit uses advanced silica-based membrane technology for rapid and efficient purification of genomic DNA without organic extraction or ethanol precipitation. Purified DNA with this system is suitable for a variety of applications, including PCR amplification, membrane hybridizations, and digestion with restriction endonucleases.

Kit Contents

Components	Amount	Storage
Dokdo-Prep™ Column *	200 ea	Room Temperature
RBCL	40 ml	Room Temperature
Binding Buffer **	40 ml	Room Temperature
Wash Solution I †	50 ml	Room Temperature
Wash Solution II ‡	24 ml	Room Temperature
Elution Buffer	20 ml	Room Temperature
Proteinase K #	4 ml	4℃
Manual	1 ea	-

* Dokdo-Prep™ Column contains 2 ml collection tube

** This buffer must be shake gently before use.

† Before use, **add 50 ml of absolute ethanol (>98%) to 50 ml Wash Buffer I**.

‡ Before use, **add 96 ml of absolute ethanol (>98%) to 24 ml Wash Buffer I**.
For other volumes of wash buffer, simply add enough ethanol to make a 4 : 1 ratio (Ethanol volume : Wash Buffer volume).

\# Although Proteinase K is stable at 4℃, but we recommend placing at -20℃ for longer storage.

Quality Control

The performance of Dokdo-Prep™ Blood Genomic DNA Purification Kit is monitored routinely on a lot number. The quality of isolated DNA is checked by restriction digestion, agarose gel electrophoresis, and spectrophotometry. Before starting, remember adding absolute ethanol into Wash Solution (I and II) before use.

Centrifugation notes

All centrifugation steps are carried out at maximum speed (≥ 10,000g or ~13,000 rpm) in a conventional, table-top microcentrifuge.

Protocols

1. Place 20 μl of Proteinase K solution* into a fresh 1.5 ml microcentrifuge tube.

2. Add whole blood sample into the tube.
   Recommended blood sample volume : for non-nucleated blood (mammalian) : 50～100 μl
   for nucleated blood (chicken) : 5～20 μl

3. Add RBCL Buffer to adjust the final volume up to 200 μl, and mix by vortexing or pipetting.

4. Add 200 μl Binding Buffer, and then mix well by vortexing or pipetting.

5. Incubate the mixture for 10 min at 70℃.
   To help lyse cells, mix by vortexing the tube every 2 min during the incubation.

6. Add 200 μl of absolute ethanol to the mixture and vortex briefly to mix completely.

7. Place an spin column in a 2 ml collection tube.

8. Apply the mixture at step 6 to the spin column.

9. Centrifuge for 1 min at 13,000 rpm.
   Then discard the flow-through from collection tube.

10. Wash the column by adding 500 μl of Wash Solution I.
    Make sure addition of ethanol to the Wash Solutions before use.

11. Centrifuge for 1 min at 13,000 rpm.

12. Add 600 μl of Wash Solution II, and centrifuge for 2 min at at 13,000 rpm.

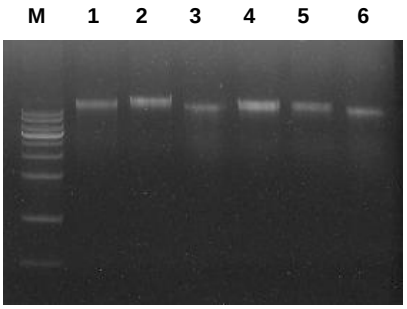
13. Discard the flow-through, and centrifuge the column for an additional 2 min at 13,000 rpm to completely remove residual Wash Solutions.

14. Place the column in a clean 1.5 ml microfuge tube.

15. To elute DNA, add 100 μl of 55-60℃ pre-warmed Elution Buffer or H_2O onto the center of spin colum.
    Wait for 1 min, and then centrifuge for 1 min.

16. Store purified plasmid DNA at -20℃ or below for longer storage.

Fig.1. Purification of blood gDNA



Analyzed on a 0.7% agarose

M : 1Kbp DNA ladder marker (EBM-1002)

Lane 1. 3. 100 μl human blood - 100 μl elution (5 μl load)

2. 4. 100 μl human blood - 100 μl elution (5 μl load)

5. 500 μl human blood – company B gDNA prep kit 50 μl elution (2.5 μl load)

6. 500 μl human blood – Dokdo-Prep™ gDNA Prep Kit 50 μl elution (2.5 μl load)

*Company B kit : 6-10 μg from 500 μl blood.

Dokdo-Prep™ Blood Genomic DNA Purification Kit : 6-10 μg from 500 μl blood.

Related Products

Dokdo-Prep™ Plasmid Mini-prep Kit (spin-type)	EBD-1001S
Dokdo-Prep™ Plasmid Mini-prep Kit (bead-type)	EBD-1001M
Dokdo-Prep™ PCR Purification Kit	EBD-1004
Dokdo-Prep™ Gel Extraction Kit (spin-type)	EBD-1005
Dokdo-Prep™ Gel Extraction Kit (bead-type)	EBD-1006
Dokdo-Prep™ Bacterial Genomic DNA Purification Kit	EBD-1007
Dokdo-Prep™ Blood Genomic DNA Purification Kit	EBD-1008

Customer & Technical Services

For technical assistance and more information please call one of the Elpis-Biotech., Inc.

Tel : +82-42-581-8448

Fax : +82-42-581-8449

E-mail : elpis@elpisbio.com

Trademarks

Dokdo-Prep™ and One•Que™ are trademarks of Elpis-Biotech., Inc.