Ver. 2412-02

PureHelix™ *Genomic* DNA Prep Kit [Blood]

Solution type

Kit Contents

PureHelix™ *Genomic* DNA Prep Kit [Blood]		
Cat. No.	**GSB100** (100preps)	**GSB400** (400preps)
RBC Lysis Solution	90ml	360ml
Cell Lysis Solution (Blood)	30ml	120ml
DNA Hydration Solution	10ml	40ml
Protein Precipitation Solution	10ml	40ml
WB	11ml (Add 44ml ethanol)	44ml (Add 176ml ethanol)
Instructions for Use	1ea	1ea

Description

PureHelix™ *Genomic* Prep Kit [Blood] is designed for high-yield and high-quality isolation of genomic DNA from whole blood samples. This solution based system minimizes DNA fragmentation that may be problematic in spin-column/filtration based methods. Because phenol or chloroform is not used it is safe and does not produce any harmful waste. DNA purified with this kit is suitable for a variety of applications, including PCR amplification, digestion with restriction endonucleases and membrane hybridizations.

Applications

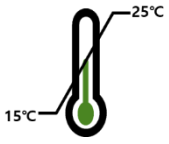
PCR, quantitative real-time PCR

Southern blot analysis

Genotyping

Discovery or validation of SNP/SSR markers

Storage



Room temperature

Shelf life

12 months

NanoHelix Co., Ltd.

F711-1(Rev.0)

A-dong and B-dong, 43-15, Techno 5-ro, Yuseong-Gu, Daejeon, 34014, Republic of Korea TEL : 82-42-867-9055, FAX : 82-42-867-9057

E-mail : info@nanohelix.net <www.nanohelix.net www.nanohelix.net/KOR>

Quality Control

Each lot of **PureHelix™ *Genomic* DNA Prep Kit [Blood]** was tested against predetermined specifications to ensure consistent product quality.

Protocol

Important things to do before starting

- Prepare **Isopropanol** (2-propanol) **(not included in this kit)**.
- Before using **WB**, add **absolute ethanol** according to the bottle label to obtain a working solution. You may use 80% ethanol, instead of WB. Ethanol does not supplied in this kit.

Cell Lysis

1. Add 300µl of whole blood (or bone marrow) to a 1.5ml microcentrifuge tube containing **900µl** of **RBC Lysis Solution** and invert 10 times**.**
2. Incubate for 3 min at room temperature with occasional inversion.
   (Please Note: For fresh blood collected within 1 hour before preparation increase the incubation time to 10 min to ensure complete red blood cell lysis)
3. Centrifuge for 30 sec at 12,000 rpm. Remove the supernatant with a pipet leaving behind the visible white cell pellet and about 10-20µl of the residual liquid.
4. Vortex the tube vigorously for 10 sec to resuspend the white cells in the residual liquid (The white cell pellet should be completely resuspended).
5. Add **300µl** of **Cell Lysis Solution (Blood)** to the resuspended cells and pipet up and down to lyse the cells until no clumps are visible.

Protein Precipitation

6. Add **100µl** of **Protein Precipitation Solution**, and vortex briefly.
7. Place the tube on ice for 5 min, and centrifuge at 12,000 rpm for 5 min.
   ※ The precipitated proteins should from a tight, dark brown pellet. If the protein pellet is not tight, repeat this step.

DNA Precipitation

8. Transfer the supernatant into a clean 1.5ml microcentrifuge tube containing **300µl** of **Isopropanol** (2-propanol), and mix the sample by inverting gently for 1 min.
9. Centrifuge at 12,000 rpm for 1 min. Discard the supernatant and drain tube briefly on clean absorbent paper.
   ※ DNA should be visible as a small white pellet.

A-dong and B-dong, 43-15, Techno 5-ro, Yuseong-Gu, Daejeon, 34014, Republic of Korea TEL : 82-42-867-9055, FAX : 82-42-867-9057
E-mail : info@nanohelix.net <**www.nanohelix.net www.nanohelix.net/KOR**>

10. Add **500µl** of **WB (80% ethanol)** and invert the tube several times to wash the DNA pellet.
11. Centrifuge at 12,000 rpm for 1 min. Discard the ethanol carefully and dry at room temperature for 10 min.

    ※ The DNA pellet is very loose at this point and care must be taken to avoid missing the pellet. Ethanol should be completely removed, but DNA is very difficult to redissolve when over-dried.

DNA Hydration

12. Add **20-100µl** of **DNA Hydration Solution**. Vortex 5 sec at medium speed to mix. Incubate the sample at 65℃ for 30 min to accelerate rehydration. Store the DNA at 4℃.

    ※ For long time storage, Place the sample at -20℃ or -80℃.

Products

Cat. No.	Products	Size
GSB100	PureHelix™ *Genomic* DNA Prep Kit [Blood], Solution type	100preps
GSB400	PureHelix™ *Genomic* DNA Prep Kit [Blood], Solution type	400preps

A-dong and B-dong, 43-15, Techno 5-ro, Yuseong-Gu, Daejeon, 34014, Republic of Korea TEL : 82-42-867-9055, FAX : 82-42-867-9057
E-mail : info@nanohelix.net <www.nanohelix.net www.nanohelix.net/KOR>