

Data sheet

Blood Genomic DNA Extraction Kit

(Isolation of DNA from 5 ml or 10 ml Whole Blood)

Cat. No: AN0049

20 reactions if processing 5 ml blood samples

10 reactions if processing 10 ml blood samples

Description

Blood Genomic DNA Extraction kit is a simple and rapid method for high-quality genomic DNA purification from various sources, including: whole blood, buffy coat* and cultured cells*.

The procedure includes: lysis, protein removal, DNA precipitation, washing and hydration.

*Extraction protocols are available at the *Canvax Biotech* website.

Features

- **Safe:** no phenol-chloroform extraction.
- **Efficient:** 100-250 µg of genomic DNA from a 5ml blood sample (150-500 µg of genomic DNA from a 10 ml).
- **Ready to use** genomic DNA, in all molecular biology applications.

Applications

- High molecular weight genomic DNA purified with the kit is suitable for direct use in all common molecular biology applications: PCR, cloning, DNA sequencing, Southern blot analysis, etc.

Kit Components

Item	AN0049
S1 Buffer	3x100 ml
S2 Buffer	100 ml
S3 Buffer	50 ml
Proteinase K*	100 mg
EB Buffer	15 ml

Kit Storage:

Store the kit at room temperature. If any kit reagent forms a precipitate, warm at 55–65 °C until the precipitate dissolves, and allow to cool to room temperature before use.

*Dissolve Proteinase K in water (5 ml) to obtain a 20 mg/mL stock solution. **The Proteinase K solution can be stored for several days at 2–8 °C.** For longer-term storage, the unused portion of the solution may be stored in aliquots at –20 °C until needed. This product as supplied is stable at room temperature.

Quality Certifications

Blood Genomic DNA Extraction kit is tested on a lot-to-lot basis by isolating total DNA from 5 ml of whole human blood. DNA purified is analysed by:

- Spectrophotometer: Ratio 260/ 280 (1.6-1.8)
- Agarose gel electrophoresis.

(Continued on reverse side)

Distributed by:

Lab Unlimited
CARL STUART GROUP

Tallaght Business Park
Whitestown, Dublin 24,
Ireland
D24 RFK3

Tel: (01) 4523432

Fax: (01) 4523967

E-mail: info@labunlimited.com

Web: www.labunlimited.com

Quatro House, Frimley Road,
Camberley,
United Kingdom
GU16 7ER

Tel: 08452 30 40 30

Fax: 08452 30 50 30

E-mail: info@labunlimited.co.uk

Web: www.labunlimited.co.uk

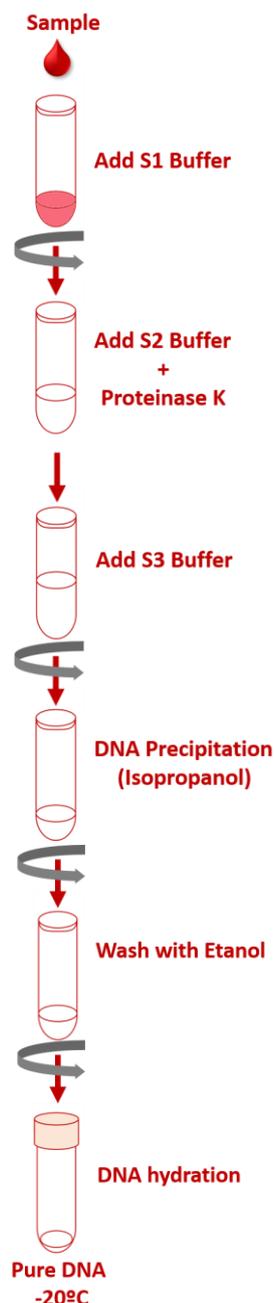


DETAILED PROTOCOL



Choose ■ if processing 5 ml blood samples
choose ▲ if processing 10 ml blood samples.

1. Transfer up to ■ 5 ml / ▲ 10 ml of sample to a 50 ml tube.
2. Add ■ 15 ml / ▲ 30 ml buffer S1 to the sample and vortex gently or invert tube 6-8 times and leave to incubate for 5-8 minutes at room temperature
3. Centrifuge at 2500 rpm for 2 minutes. Remove the supernatant using a pipette and avoiding damaging the cell visible pellet and leaving 200 µl of residual liquid.
4. Vortex the tube vigorously until the white blood cells are resuspended (10–15 seconds). **This process will help to optimize the cell lysis in the following step.**
5. Add ■ 250 µl / ▲ 500 µl proteinase K and ■ 5 ml / ▲ 10 ml buffer S2 and mixing by pipetting. Transfer all the mix into a new 50 ml tube.
6. Incubate in a water bath at 55 °C for 0.5-1 hour, and then cool to room temperature.
7. Add ■ 1.67 µl / ▲ 3.33 µl buffer S3 and mixing with vortex vigorously for 20 seconds.
8. Centrifuge at 2500 rpm for 5 minutes. A dark brown pellet should be visible. If no pellet is observed, incubate on ice for 5 minutes and centrifuge again.
9. Transfer the supernatant to a new 50 ml tube containing ■ 5 ml / ▲ 10 ml isopropanol. Mix by gentle inversion 50 times.
10. Centrifuge at 2500 rpm for 3 minutes and remove the supernatant. The DNA will be visible as a small white pellet.
11. Wash with ■ 5 ml / ▲ 10 ml 70% ethanol and centrifuge at 2500 rpm for 1 minutes.
12. Remove the supernatant using a pipette and dry the pellet with the tube inverted on absorbent paper for 5-10 minutes.
13. Add ■ 500 µl / ▲ 1 ml of Buffer EB and vortex for 5 seconds at medium speed to mix. Close the cap and incubate for 1 hour.
14. Resuspend the DNA and store at -20 ° C.



PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively for research purposes and in vitro use only. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals. Please refer to www.canvaxbiotech.com for Material Safety Data Sheet of the product.

Distributed by:

Lab Unlimited
CARL STUART GROUP

Tallaght Business Park
Whitestown, Dublin 24,
Ireland
D24 RFK3

Tel: (01) 4523432
Fax: (01) 4523967
E-mail: info@labunlimited.com
Web: www.labunlimited.com

Quatro House, Frimley Road,
Camberley,
United Kingdom
GU16 7ER

Tel: 08452 30 40 30
Fax: 08452 30 50 30
E-mail: info@labunlimited.co.uk
Web: www.labunlimited.co.uk