

Data sheet

Blood Genomic DNA Extraction Kit

(Isolation of DNA from 200 µl – 2ml Whole Blood)

Cat. No: AN0043

150 reactions if processing 200 µl blood samples

15 reactions if processing 2 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:** 3-6 µg of genomic DNA from a 200 µl blood sample (30-90 µg of genomic DNA from a 2 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	AN0043
S1 Buffer	2x60 ml
S2 Buffer	36 ml
S3 Buffer	12 ml
Proteinase K*	30 mg
EB Buffer	10 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 (1.5 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 200µl of whole human blood. DNA purified is analysed by:

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

(Continued on reverse side)

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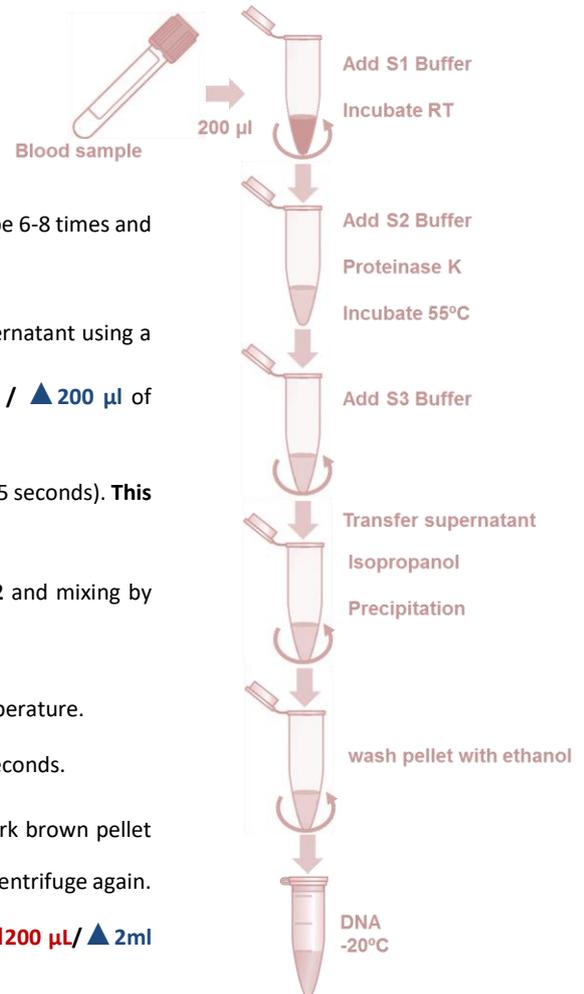
 **canvax**

DETAILED PROTOCOL



Choose ■ if processing 200 µl blood samples
choose ▲ if processing 2 ml blood samples.

1. Transfer up to ■ 200 µl / ▲ 2ml of sample to a ■ 1.5 ml / ▲ 15ml tube.
2. Add ■ 600 µl / ▲ 6ml buffer S1 to the sample and vortex gently or invert tube 6-8 times and leave to incubate for 2-3 minutes / 5-8 minutes at room temperature
3. Centrifuge at ■ 13000 rpm / ▲ 2500 rpm for 1-2 minutes. Remove the supernatant using a pipette and avoiding damaging the cell visible pellet and leaving ■ 50 µl / ▲ 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 ■ 5-10 µl / ▲ 50-100 µl proteinase K and ■ 200 µl / ▲ 2ml buffer S2 and mixing by pipetting. Transfer all the mix into a new ■ 1.5 ml / ▲ 15ml tube.
6. Incubate in a water bath at 55 °C for 0.5-1 hour, and then cool to room temperature.
7. Add ■ 67 µl / ▲ 670 µl buffer S3 and mixing with vortex vigorously for 20 seconds.
8. Centrifuge at ■ 13000 rpm for 1 minute / ▲ 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 ■ 1.5 ml / ▲ 15ml tube containing ■ 200 µl / ▲ 2ml isopropanol. Mix by gentle inversion 50 times.
10. Centrifuge at ■ 13000 rpm for 1 minute / ▲ 2500 rpm for 3 minutes and remove the supernatant. The DNA will be visible as a small white pellet.
11. Wash with ■ 200 µl / ▲ 2ml 70% ethanol and centrifuge at ■ 13000 rpm for 1 minute / ▲ 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. Resuspend the DNA adding ■ 65 µl / ▲ 200µl of Buffer EB.
14. Store DNA 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.

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