# Fast Blood Genomic DNA Extraction Kit (Cat. G217080)

## Product Information:

**Contents:** Reagent-A (50mL), Reagent-B (25mL), Reagent-C (2.5mL), Reagent-D (25mL), DNA precipitation solution (50mL)

**Catalog Number:** G217080

**Size:** 100 extractions

**Storage Condition:** stored at -20°C ***For research use only***

## Description:

High-quality total genomic DNA (gDNA) is routinely extracted from anti-coagulated whole blood (EDTA or heparin), saliva, buccal swabs, or soft tissues, which might contain the bacteria, fungus, virus (HIV, HBV). The whole process in this kit provides a quick, easy and reliable method designed to remove the red blood cells (RBC), lysate all the nucleated cells (leukocytes), micro bacterial, fungus and viruses. The high-quality extracted genomic DNA is ideal for most PCR, southern blots, Microarray, restriction digestion and other diagnosis analysis.

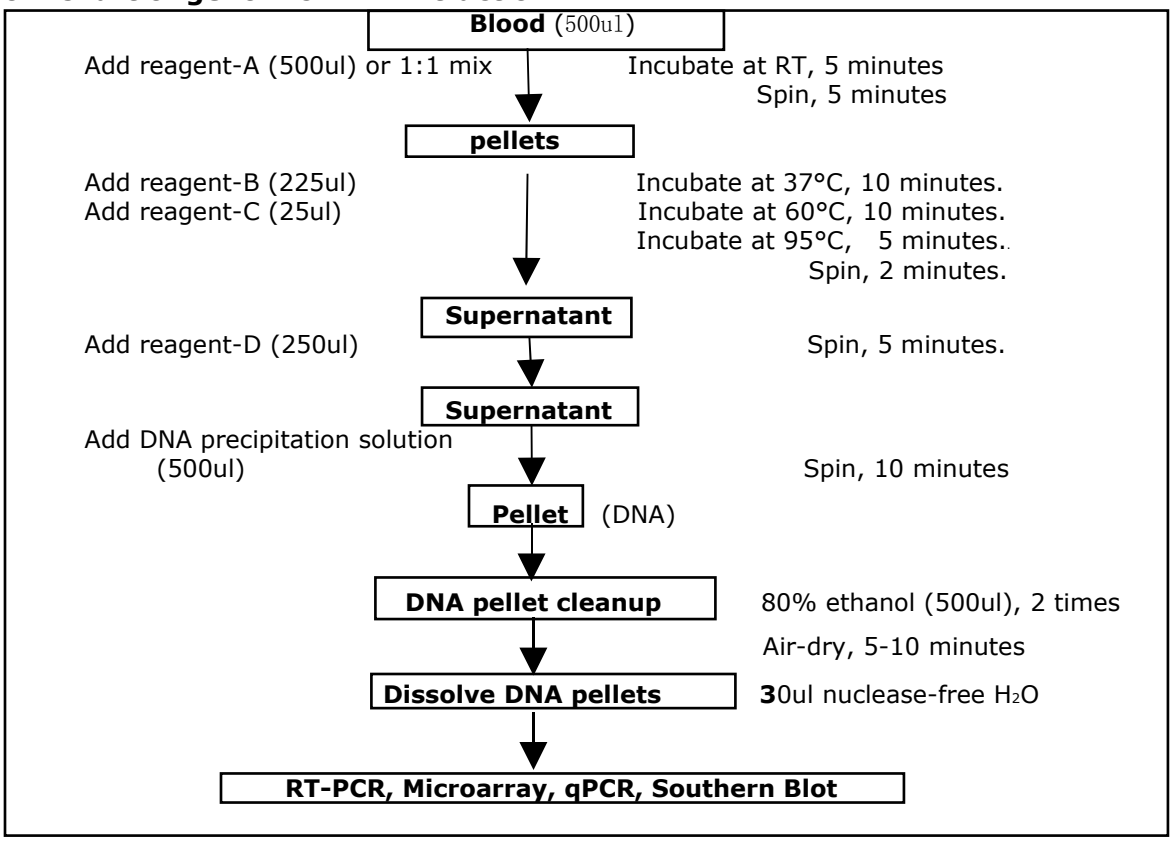
## Key features:

1. Obtain the highest yield and integrity of total genomic DNA from various blood sources within 1 hour.
2. No filter column or vacuum filtration is required, able to avoid the loss of small genomic DNA during extraction procedure.
3. No Phenol-Chloroform extraction and without using harmful chemicals.
4. High quality extracted DNA without RNA contamination, suitable for most downstream applications.

## Procedure:

1. Add 500ul **Reagent A** into a 1.5 ml centrifuge tube contained 500ul anti-coagulated whole blood (EDTA or heparin). (Or 1:1 mix for large volume of blood).
   Simple vortex and incubate for 5 minutes at room temperature.
2. Centrifuge at 12,000xg for 5 min to pellet the whole cells.
3. Discard the supernatant and add 225ul **reagent-B** to resuspend the pellet.
4. Simple vortex and incubate for 10 minutes at 37°C.
5. Add 25ul **reagent-C** into the sample tube and continue incubate for 10 minutes at 60°C.
6. Place the tube in a PCR machine (or water bath or block) and incubate at 95ºC for 5 minutes.
7. Centrifuge at 12,000 xg for 2 minutes at 4ºC and transfer the lysate supernatant into a clean tube.
8. Add 250ul **reagent-D** into the lysate supernatant and mix by gently vortexing.
9. Centrifuge at 5,000 xg for 5 minutes at 4ºC and transfer the lysate supernatant into a clean tube.
10. Add 500ul **DNA precipitation solution** (Cat. #: PS-01D) into the lysate supernatant.
11. Mix well by pipetting up and down several times and centrifuge at 12,000 xg for 10 minutes at 4ºC.
12. Aspirate liquid and simply wash pellet with 500ul 80% ethanol for 2 times by filling the tube with the ethanol solution and then decanting to discard the solution (don't resuspend the DNA pellets). Centrifuge at highest speed (∽12,000 xg) for 10 minute at 4°C if the pellets are resuspended.
13. Air-dry pellet for 5-10 minutes and dissolve DNA in 30ul TE buffer or distilled water.
14. Centrifuge at 12,000 xg for 10 minutes at 4ºC prior to measure the DNA concentration with 260/280nm. Store the genomic DNA solution at -20ºC.
15. Pipette 0.5-1.5ul DNA solution into a 20ul PCR Master Mixture and run PCR/Real-Time PCR at thermal cycler.

## Flow Chart of genomic DNA Extraction:




**Precautions and Disclaimer:**

This product and procedure described are intended for R&D use only. Purchase of this product does not convey a license to perform any patented process.

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