A&A BIOTECHNOLOGY
innovating life science

Manual

Blood Mini

Kit for genomic DNA purification from blood samples.

catalog #	size
022-50	50 isolations
022-250	250 isolations

For research use only.

Guarantee
A&A Biotechnology provides a guarantee on this product.
The company does not guarantee the correct performance of this kit in the event of:

- not adhering to the supplied protocol
- use of not recommended equipment or materials
- use of other reagents than recommended or which are not a component of the product
- use of expired or improperly stored product or its components

Table of Contents

Contents

component	022-50	022-250	storage
Minicolumns	50 pcs	250 pcs	15–25 °C
2 ml tubes	50 pcs	250 pcs	15–25 °C
LE solution	30 ml	140 ml	15–25 °C
LT lysis solution	13 ml	60 ml	15–25 °C
A1 wash solution	50 ml	250 ml	15–25 °C
Tris buffer (10 mM, pH 8.5)	25 ml	110 ml	15–25 °C
Proteinase K	1.1 ml	5 x 1.1 ml	4-8 °C

Note: if there is precipitation in the LT solution, heat the LT solution up to 40 °C until the precipitate dissolves.

Additional equipment and reagents

Necessary

- 1.5 ml, 2 ml sterile Eppendorf tubes
- Incubator or thermoblock set to 37 °C, 75 °C
- Vortex
- Microcentrifuge

Material preparation

Blood (fresh or frozen, up to 100 µl)

1. Transfer **100 µl** of **blood** to a 1.5 ml Eppendorf tube (not included).

   Note: for blood volume less than 100 µl, add Tris buffer to a total volume of 100 µl.

2. Follow point 1. of the isolation protocol.

Blood (fresh or frozen, 200 µl-1 ml)

1. Transfer the appropriate amount of **blood** to a 1.5 ml tube (not included).
   Add **half** of **the volume** of **LE** solution, e.g. add 250 **µl** of LE solution to 500 µl of blood.

2. Mix by inverting the tube until it becomes completely transparent.

3. Centrifuge for **3 min** at **10 000-15 000 RPM**.

4. Discard the supernatant. Add **100 µl** of **Tris** buffer to the pellet (leukocyte cells) and resuspend cells by pipetting.

5. Follow point 1. of the isolation protocol.

For a larger volume of blood samples we recommend Genomic Midi AX (cat. # 895-20) or Genomic Maxi AX (cat. # 995-10).

Isolation protocol

Set the thermoblock temperature to 75 °C and place in it the tubes with Tris elution buffer (it will be used in point 12. of the isolation protocol).

1. Add **200 µl** of **LT** lysis solution and **20 µl** of **Proteinase K**.
2. Mix the whole contents by inverting the tube and incubate for **20 min** at **37 °C.**
3. Vortex the samples intensively for **20 s** and apply samples onto the minicolumns.
4. Centrifuge for **1 min** at **10 000-15 000 RPM**.
5. Remove the minicolumns from the tubes. Discard the filtrates.
   Place the minicolumns into **the same** tubes.
6. Add **500 µl** of **A1** wash solution.
7. Centrifuge for **1 min** at **10 000-15 000 RPM**.
8. Transfer the minicolumns to **new** 2 ml tubes (included).
9. Add **400 µl** of **A1** wash solution.
10. Centrifuge for **2 min** at **10 000-15 000 RPM**.
11. Transfer the minicolumns to **new** 1.5 ml tubes (not included).
12. Add **100 µl** or **200 µl** of **Tris** buffer heated to 75 °C directly onto the minicolumn resin.

    Note: for 100 µl blood volume add 100 µl of Tris buffer; for larger volume add 200 µl of Tris buffer.
13. Incubate for **5 min** at **room temp.**
14. Centrifuge for **1 min** at **10 000-15 000 RPM**.
15. Remove the minicolumns and store the tubes with purified DNA at **4 °C or -20 °C** until later use.

Safety information

DANGER

Proteinase K

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
P261 Avoid breathing dust.
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342+P311 If experiencing respiratory symptoms call a Poison Center or doctor/physician.

WARNING

LT lysis solution

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

DANGER

A1 wash solution

H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
P210 Keep away from heat, sparks, open flames, hot surfaces. No smoking.
P261 Avoid breathing vapors.
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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