

ab156893 DNA Isolation Kit - Plasma/Serum

Instructions for Use

For the Isolation of small amounts of DNA from various samples.

This product is for research use only and is not intended for diagnostic use.

Table of Contents

Table of Contents	1
1. Background	2
2. Assay Summary	2
3. Materials Supplied	3
4. Storage and Stability	3
5. Materials Required, Not Supplied	4
6. Reagent Preparation	4
7. Sample Preparation	4
8. Assay Procedure	5
9. Data Analysis	6

1. Background

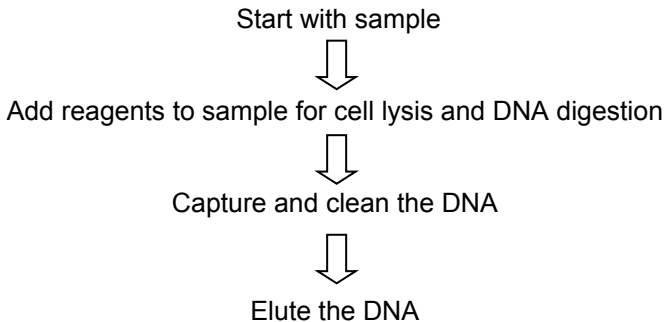
The DNA Isolation Kit - Plasma/Serum uses a unique procedure and composition to efficiently isolate DNA from plasma, serum, and body fluids. The kit has the following features:

- Extremely fast procedure, which can be finished in less than 15 minutes with consistent isolation conditions.
- High efficiency of DNA isolation from serum, plasma, and body fluids containing a tiny amount of DNA (as low as 0.1 ng).
- Use of non-toxic reagents and no phenol chloroform

The DNA Isolation Kit - Plasma/Serum simply applies our proprietary DNA isolation buffer to plasma/serum. After treatment with the DNA digestion buffer, the DNA is easily recovered in 8-20 μ l through our specially designed F-Spin Column. DNA is then ready for down-stream application.

ab156893 allows isolation of DNA sizes from 100 bp to 20 kb; DNA quantity from 0.1 ng to 2 μ g, optimal at between 1 ng and 1 μ g. The isolation uses non-toxic reagents and no phenol chloroform.

2. Assay Summary



3. Materials Supplied

Item	50 tests	100 tests	Storage (Before Preparation)	Storage (After Preparation)
PS1 (Digestion Solution)	1.1 mL	2 x 1.1 mL	RT	4°C
PS2 (Digestion Powder)	1 vial	2 vials	4°C	4°C
PS3 (DNA Isolation Buffer)	26 mL	2 x 26 mL	RT	RT
PS4 (DNA Elution Solution)	1 mL	2 mL	RT	RT
F-Spin Column	50 units	100 units	RT	RT
F-Collection Tube	50 units	100 units	RT	RT

4. Storage and Stability

Upon receipt:

(1) PS2 (Digestion Powder) should be stored at 4°C as soon as it is dissolved in PS1 (Digestion Solution). The prepared Digestion Solution is stable for 6 months.

(2) Store all other components at room temperature.

5. Materials Required, Not Supplied

- Adjustable pipette
- 70% Ethanol
- 90% Ethanol
- Incubator or water bath for 65°C incubation
- Microcentrifuge capable of 12,000 rpm

6. Reagent Preparation

Prepare PS1 (Digestion Solution) PS2 (Digestion Powder) Mix:

Add 1 mL of PS1 (Digestion Solution) to PS2 (Digestion Powder).
Vortex until solution is clear.

7. Sample Preparation

Collect plasma, serum or other biological fluids by standard methods.
No other preparation is required.

8. Assay Procedure

Note: Always cap spin columns before placing them in the microcentrifuge.

- a) Add 500 μL of PS3 (DNA Isolation Buffer) and then 20 μL of the mixed PS1 (Digestion Solution)/ PS2 (Digestion Powder) solution to 500 μL of plasma/serum or body fluid cell suspension, and mix well.
- b) Incubate at 65°C for 10 minutes. Meanwhile, place an F-Spin Column into an F-Collection Tube.
- c) Transfer the maximum 500 μL of mixture to the column. Centrifuge at 12,000 rpm for 30 seconds. Discard the flowthrough. Replace the F-Spin column to the F-Collection tube and transfer remaining volume of mixture to the column. Centrifuge again at 12,000 rpm for 30 seconds. Discard the flowthrough and replace the F-Spin Column to the F-Collection tube.

Note: *If more than 500 μL of sample is used, then steps 8a and 8b can be repeated in increments of 500 μL of the sample (i.e., if 1 mL of sample is being used, process 500 μL of sample through steps a and b first, then process the remaining 500 μL through steps 8a and 8b again).*

- d) Add 300 μL of 70% ethanol to the F-Spin Column and centrifuge at 12,000 rpm for 20 seconds.
- e) Discard the flowthrough and replace the F-Spin Column to the F-Collection tube. Add 200 μL of 90% ethanol to the column and centrifuge at 12,000 rpm for 20 seconds.
- f) Discard the flowthrough and replace the F-Spin Column to the F-Collection tube. Add an additional 200 μL of 90% ethanol to the F-Spin Column and centrifuge at 12,000 rpm for 40 seconds.
- g) Place the F-Spin Column in a new 1.5 mL vial. Add 8-18 μL of PS4 (DNA Elution Solution) directly to the F-Spin Column filter, and centrifuge at 12,000 rpm for 20 seconds to elute DNA.
- h) Store DNA at -20°C for down-stream application.

9. Data Analysis

Typical Results

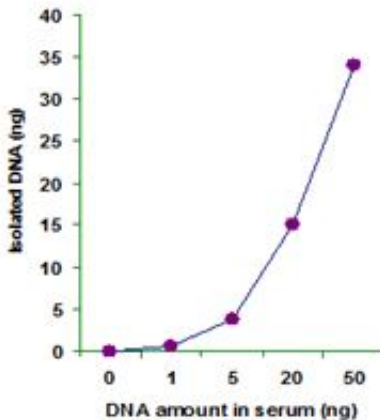


Fig. 1. Demonstration of DNA recovery. After treatment with DNA digestion buffer, the DNA is easily recovered in 8-20 μ L by our specially designed F-Spin Column. DNA is ready for down-stream application.

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