TGuide Blood Genomic DNA Kit

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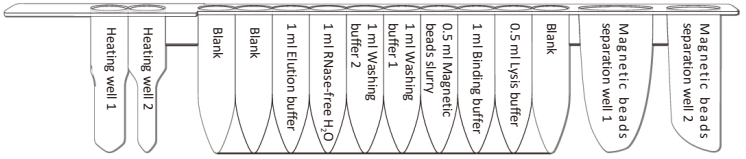
TGuide Blood Genomic DNA Kit

Cat. No. OSR-M102

Kit Contents

Contents	OSR-M102 (48 rxn)
Prepacked Reagent Cartridge (102)	48
Pipette Tips/Tip Caps	48
1.5 ml Sample Tubes (luer lock)	50
1.5 ml Centrifuge tubes	50
Protease K	1 ml
Buffer GA	15 ml
Handbook	1

Reagent Cartridge:



Storage Conditions:

It can be stored dry at room temperature (15-30°C) for 12 months.

Other Related Reagents:

Buffer CL, Buffer GS

Product Description:

TGuide Blood Genomic DNA Kit is specially designed to cooperate with TGuide M16 Nucleic Acid Extractor to extract DNA (including genomic DNA, mitochondrial DNA and viral DNA) from whole blood, serum, plasma and white blood cells. Reagents needed for cell lysis and protein degradation, magnetic beads specifically adsorbing DNA, washing buffer and the like are prepacked in the reagent cartridges, and purified DNA is eluted in a low-salt buffer solution. The length of genomic DNA extracted by the kit is 20-30 kb, suitable for PCR or other enzymatic reactions.

Extraction Yield:

Materials	Sample volume	DNA yield
Normal mammal whole blood	100-400 μl	3-15 μg
Poultry and amphibians	5-20 μl	5-40 μg

*The white blood cell count of normal human whole blood should be in the range of 4-10× 10^6/ml.

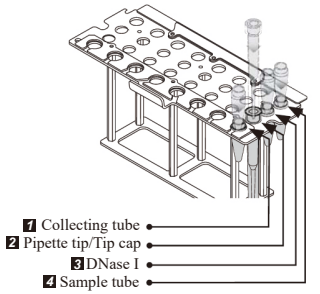
Product Features:

Simple and fast: It takes 44/57 minutes to obtain ultrapure genomic DNA from 200 μl/400 μl whole blood.

Reliable results: The obtained DNA is free from protein and RNA contamination and is able to use for PCR or fluorescence quantitative PCR.

Safe and harmless: The kit and the operation process do not need to use organic solvents harmful to human body such as phenol and chloroform.

The Setting of the T-rack:



Note: Read this note before using this kit.

1. This kit must be combined with TGuide M16 Automatic Nucleic Acid Extractor.
2. Repeated freezing and thawing of the sample should be avoided, otherwise the extraction yield will be decreased.

Operation steps:

For small amount of whole blood sample (≤ 400 µl), follow the whole blood extraction procedure; For large and medium-amount whole blood samples (500 µl-1.5 mL), follow the one-step lysis method.

Whole blood extraction procedure:

1. Add 200 µl/400 µl mammalian whole blood sample to the sample tube, and add 10 µl/20 µl Protease K to mix well.

   Note: Please add 200 µl Buffer GA for subsequent extraction when the sample volume is less than 200 µl. For anticoagulant blood of poultry, birds, amphibians or lower organisms, the red blood cells are nucleated cells. Therefore, the treated amount is 5-20 µl, top up with Buffer to a total 200 µl for subsequent extraction.
2. Place the sample tube in the well labeled "4" of the T-rack. Run the program No.102 (whole blood genomic DNA extraction program) and select the corresponding sample volume and final elution volume.

One-step lysis method procedure:

1. Add 500 µl-1.5 ml mammalian whole blood sample to the 1.5 ml/15 ml centrifuge tube.

   Note: For large volume samples (>600 µl, ≤1.5 ml), please replace it with a 15 ml sharp-bottom centrifuge tube for subsequent operation.
2. Add 2.5 times of Buffer CL (self-prepared) and mix up and down for 10 times.

   Note: To facilitate the use of 1.5 ml centrifuge tubes for 500 µl-600 µl samples, Buffer CL with the same volume as mammalian whole blood samples can be added, and repeat the lysis step.

3. Centrifuge for 4 min at 2000×g and discard the supernatant.

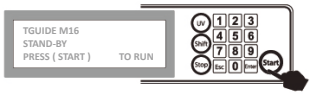
   Note: If 1.5ml centrifuge tube is used, centrifuge at 12,000 rpm (~13,400 x g) for 1 min, and discard the supernatant.

4. Add 400 µl of Buffer GS (self-prepared) and 40 µl of Protease K to resuspend the precipitate.
5. Transfer the above mixed solution to a 1.5 ml sample tube.
6. Place the sample tube in the well 4 of the T-rack. Run the procedure No.102 (whole blood genomic DNA extraction procedure), and select the sample volume of 400 µl and the final elution volume.

Start program

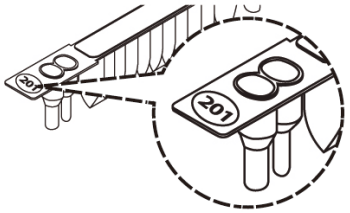
TGuide M16

Apply your specimen to TGuide after installing all necessary accessories.



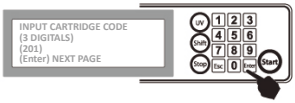
Press START

After the Start button is pressed, the machine executes the calibration procedure, initializes, and moves all axes to the original position.



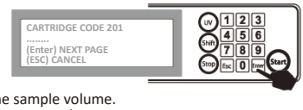
Enter the cartridge code and execute the program. The cartridge code is displayed on the prepacked reagent cartridge and the cover of the manual.

The above code is for demonstration purposes, please refer to the reagent cartridge you will actually purchase.



Confirm the cartridge code you entered again and press Enter to select the sample volume on the next page.

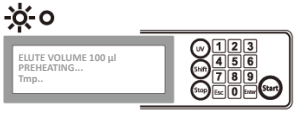
Select the sample volume



Confirm the sample volume.
Press Enter to enter the next page;
Press ESC to return to the Stand-By page.

In this step, check whether the cartridge rack and T-rack are in the work area.
Then press Enter to select the elution volume on the next page

Select elution volume



In this process, the green LCD indicator lights up and the heater starts to heat up to 65°C for the lysis step.
The TGuide LCD light is on at all times during the TGuide M16 program.
Don't open the door at this time, it will cause an emergency stop. You may lose your sample due to machine interruption.

When the program is completed, an alarm sound can be heard and the green LCD indicator goes out.