

TGuide M16 Automated Nucleic Acid Extractor



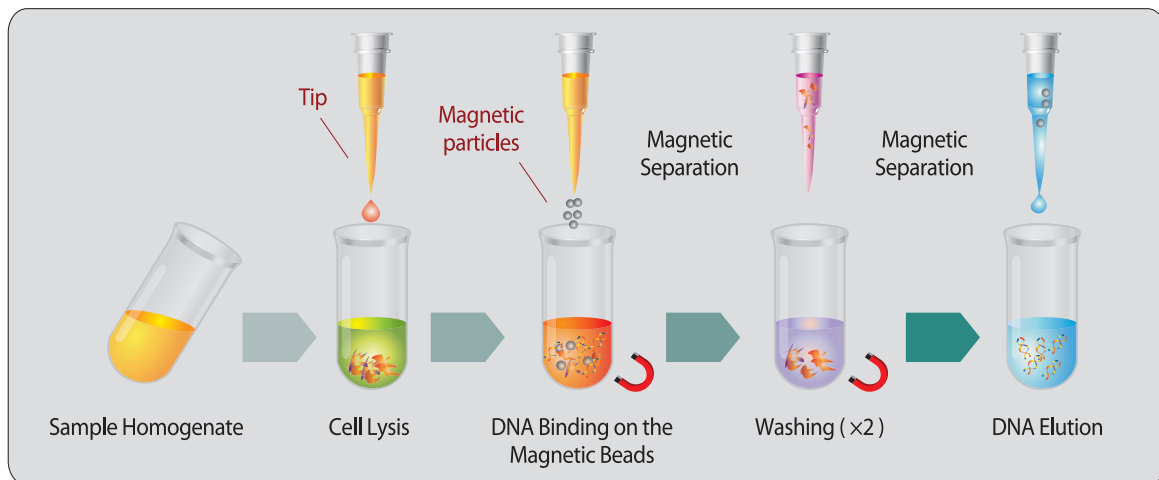
TGuide M16 Automated Nucleic Acid Extractor >>

Product Description

TGuide M16 is a simple, fast, and cost-effective instrument that automatically purifies nucleic acids from samples such as whole blood, viruses, tissues, plants, bacteria, and cultured cells. With the preset input programs and the reagent cartridges prepacked with magnetic bead slurry, the instrument provides a consistent and stable automated nucleic acid purification solution for every busy laboratory.



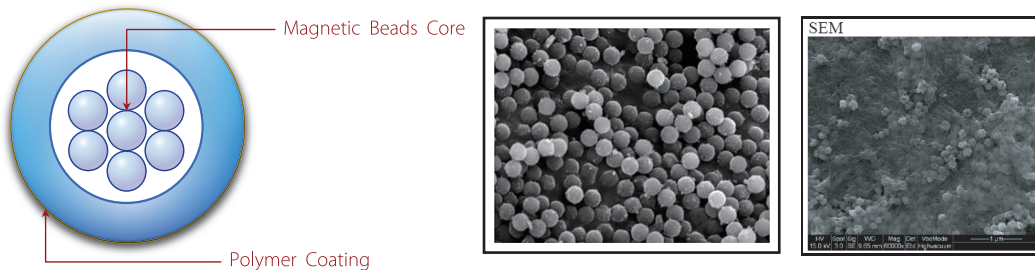
Workflow of The Nucleic Acid Extraction by TGuide M16 >>



Unique Features of TGuide M16 >>

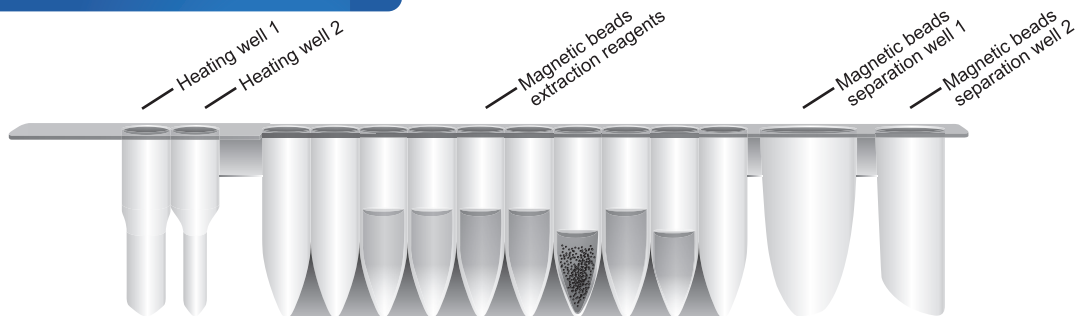
Reasons to Choose	Features
Easy to operate	Easy touch button operation; No complicated programming; Simple and fast operation.
Wide range of samples	Capable of extracting nucleic acids from whole blood, plasma, plants, tissues, bacteria, cells and virus.
Flexible and cost-effective	1-16 samples can be processed per batch, and the consumables applied for each sample are used independently. Cost-effective for each experiment.
No contamination	The unique design of reagent cartridge can avoid the contamination among wells and different batches.
Reliable results	The extraction results are consistent, with high stability. No residual magnetic beads in the extracted nucleic acid.
Fast and high-efficient	In conjunction with the TGuide prepacked reagent cartridge, the whole extraction process takes only about 30 min.

Innovative Cellulose-Embedded Magnetic Beads Technology >>



Based on the latest research progress in cellulose embedding as well as the production process and adsorption effect of magnetic beads, TIANGEN developed a new type of cellulose-embedded magnetic beads, which has better adsorption effect than traditional silicon-based magnetic beads, and can deliver results with good consistency and high stability.

Well-Designed Reagent Cartridge >>



The special shape design of the wells ensures that the beads are fully mixed with the samples and that the washing buffer can be completely drawn up to prevent the remaining of impurities. The reagents required for the experiment have been pre-packed in the reagent cartridge and the cartridge is sealed to avoid contamination.

New-Designed Pipette Tips >>



The tip of the pipette tip is specially designed with a groove to ensure drawing up accurate volume of the solution, and avoid the inaccurate aspiration volume due to the inhalation of air.

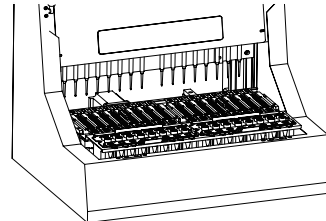
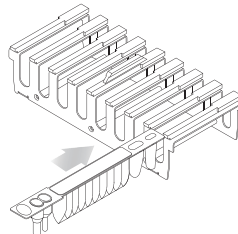
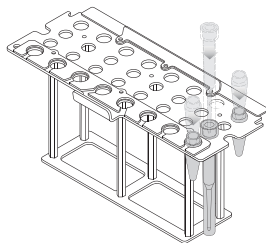
Effective Prevention of Cross-Contamination >>

Separate channels, uniquely designed pipetting systems and the use of disposable consumables completely eliminate the possibility of cross-contamination. The UV-sterilized design ensures a sterile environment inside the instrument, making the entire instrument safe from contamination.

Simple and Easy Procedure >>

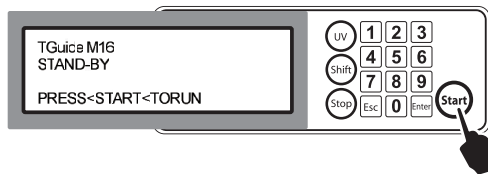
Only three steps for nucleic acid extraction: 1 ▶ 2 ▶ 3

1



Place the fittings in TGuide M16

2



Enter the cartridge code, and TGuide M16 will automatically select the corresponding program to run

3



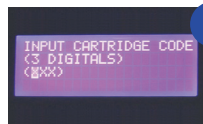
The program can be completed within 30-70 min

Specific Operation Procedure >>



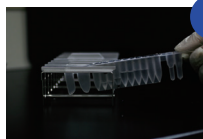
1

Turn on the power switch and press the "Start" button to initialize the TGuide M16.



2

Input cartridge code.



3

Place the preparked reagent cartridge on the reagent cartridge rack.



4

Place the reagent cartridge rack loaded with the preparked reagent cartridge into the designated operating area.



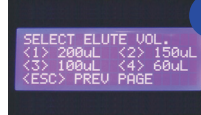
5

Place the T-rack loaded with sample tubes, elution tubes and pipette tips/tip caps into the designated operating area.



6

Confirm that the T-rack and reagent cartridge rack have been placed in the correct positions. Click the "Enter" button to proceed to the next step.



7

Select the start volume and the final elution volume for the samples, and press the "Start" button to start the extraction process.



8

During the extraction process, the LCD indicator of the operation panel will remain on. When the extraction is completed, an alarm sound will be given and the indicator will go out.

Blood Genomic DNA Extraction

TGuide Blood Genomic DNA Kit

Test results of genomic DNA extracted from 200 μ l whole blood treated with different anticoagulants

Anticoagulant	OD ₂₆₀ /OD ₂₈₀	Conc (ng/ μ l)
1. EDTA	1.87	33.01
2. Sodium Citrate	1.87	28.73
3. Lithium Heparin (4 ml)	1.95	35.34
4. Sodium Fluoride	1.91	37.72
5. Lithium Heparin (9 ml)	1.95	33.78

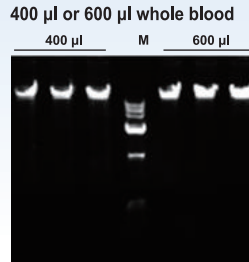
DNA was dissolved in 200 μ l elution buffer

Test results of genomic DNA extracted from 400 μ l or 600 μ l whole blood

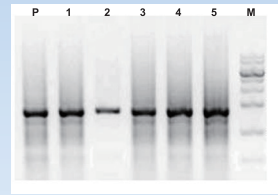
Sample no.	OD ₂₆₀ /OD ₂₈₀	OD ₂₆₀ /OD ₂₃₀	Conc (ng/ μ l)
400 μ l-1	1.96	2.02	149.44
400 μ l-2	1.95	1.90	140.91
400 μ l-3	1.93	2.12	143.13
600 μ l-1	1.88	2.08	192.73
600 μ l-2	1.89	2.15	194.52
600 μ l-3	1.86	2.17	199.47

DNA was dissolved in 100 μ l elution buffer

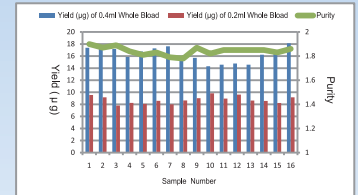
Genomic DNA extracted from 400 μ l or 600 μ l whole blood



M: DL15000 Marker; Loading volume: 2 μ l



M: 1 kb ladder;
1-5: Genomic DNA extracted from blood with different anticoagulants. Target gene: Cb1-b, size: 1.7 kb.
P: Positive control.



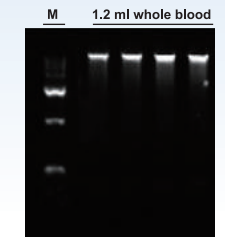
Stability of the yield and purity: Genomic DNA was extracted from healthy human whole blood samples (200 μ l and 400 μ l) by TGuide M16. The extracted DNA was dissolved in 100 μ l and 200 μ l of elution buffer, respectively.

Test results of genomic DNA extracted from 1.2 ml whole blood

Sample no.	OD ₂₆₀ /OD ₂₈₀	OD ₂₆₀ /OD ₂₃₀	Yield (μ g)
1	1.95	1.65	39
2	1.85	1.61	37
3	1.86	1.68	48
4	1.80	1.71	45

DNA was dissolved in 300 μ l elution buffer

Genomic DNA extracted from 1.2 ml whole blood

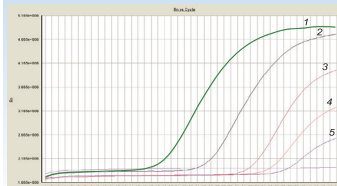


M: DL15000 Marker; Loading volume: 2 μ l

Virus Nucleic Acid Extraction

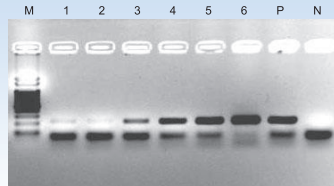
TGuide Virus DNA/RNA Kit

RT-qPCR detection result of HBV



HBV DNA/RNA was purified from 200 μ l of positive patient serum with different concentrations of HBV using TGuide Virus DNA/RNA Kit. The purified HBV DNA was dissolved in 60 μ l elution buffer.

Nested PCR detection result of HCV



Nested PCR detection results of the DNA/RNA purified from serum samples with different concentrations of HCV using TGuide Virus DNA/RNA Kit.
1. 5 x 10⁶ HCV serum; 2. 5 x 10⁵ HCV serum; 3. 5 x 10⁴ HCV serum; 4. 5 x 10³ HCV serum; 5. 5 x 10² HCV serum; 6. 5 x 10¹ HCV serum; P: Positive control; N: Negative control; M: 100 bp DNA ladder

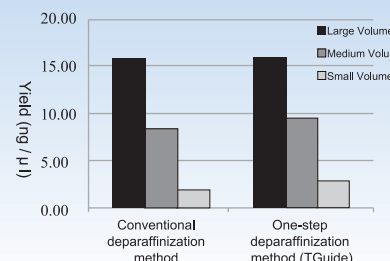
Cells/Tissue Genomic DNA Extraction

TGuide Cells/Tissue Genomic DNA Kit

The yields of DNA extracted from different animal tissues

Sample	Sample input	OD ₂₆₀ /OD ₂₈₀	Conc (ng/ μ l)
Mouse muscle	20 mg	1.77	24.93
Mouse brain	20 mg	1.84	39.75
Mouse kidney	10 mg	1.89	83.36
Mouse liver	10 mg	1.85	101.30
Mouse tail	0.5 cm	1.92	79.8

TGuide FFPE DNA One-Step Kit



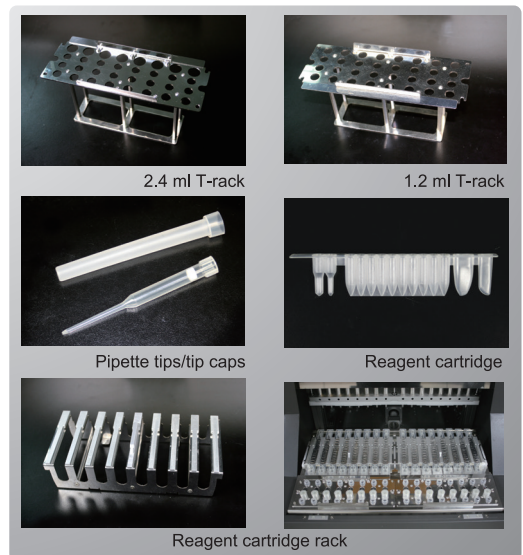
The results showed that for large volume samples, the extraction yields of the two methods were comparable; for samples with medium and small volume, the yield of the one-step deparaffinization method (perform with TGuide) was greater than that of the conventional deparaffinization method. Therefore, the one-step deparaffinization method not only simplifies the operation, reduces the risk, but also improves the extraction efficiency.

Note:

Large volume sample: the sectioning area is within 2.5-4 mm² and the thickness is within 5-20 μ m.
Medium volume sample: the sectioning area is within 1.5-2.5 mm² and the thickness is within 5 and 20 μ m.
Small volume sample: the sectioning area is within 0.2-1.5 mm² and the thickness is within 5-20 μ m.

Parameters of TGuide M16 Automated Nucleic Acid Extractor >>

Systematic approach:	Separation of nucleic acids based on cellulose-embedded magnetic beads technology
Processing capacity:	1-16 samples per batch
Processing time:	30-70 minutes (depending on sample type and program)
Sample volume:	200 µl/400 µl/1200 µl/2400 µl
Elution volume:	60 µl/100 µl/150 µl/300 µl
Weight and dimensions:	70 kg, length 66 cm × width 55 cm × height 68 cm
System components:	1. Pipetting unit: Draw up, transfer, XY two-axis motion 2. Electrical Control: Internal Microprocessor 3. UV lamp: Power 5 W, life expectancy 1000 hours 4. Heating block: room temperature -100 °C 5. Display screen: 3-inch LCM screen with button panel 6. Accessories: T-rack, reagent cartridge, reagent cartridge rack, pipette tips/tip caps, sample tube, centrifuge tube, O-shaped ring, lubricating grease



Product Guide for TGuide M16 >>

Cat. No	Product Name	Cartridge Code	Applicable Samples
OSR-M102	TGuide Blood Genomic DNA Kit (200 µl/400 µl)	102	Fresh and cryopreserved whole blood/leukocyte
OSR-M102-T1	TGuide Blood Genomic DNA Kit (200 µl-1.5 ml)	102	Fresh and cryopreserved whole blood/leukocyte
OSR-M104	TGuide Blood Genomic DNA Kit (large volume) (1.2 ml)	104	Fresh and cryopreserved whole blood/leukocyte
OSR-M104-T1	TGuide Blood Genomic DNA Kit (large volume) (1-3 ml)	104	Fresh and cryopreserved whole blood/leukocyte
OSR-M105	TGuide Plasma DNA Extraction Kit	105	Serum/plasma/body fluid
OSR-M202	TGuide Virus DNA/RNA Kit (200 µl/400 µl)	202	Serum/plasma/body fluid/virus
OSR-M211	TGuide Virus DNA/RNA Kit (1.2 ml)	211	Serum/plasma/body fluid/virus
OSR-M401	TGuide Cells/Tissue Genomic DNA Kit	401/110	Animal cells and tissues/FFPE/mouth swabs/dry blood spots and other forensic samples
OSR-M405	TGuide FFPE DNA One-Step Kit	405	FFPE
OSR-M301	TGuide Plant Genomic DNA Kit	301	Plant cells/leaf/seed
OSR-M502	TGuide Bacteria Genomic DNA Kit	502	Bacteria (G+/G-)/Food pathogen (microorganism)
OSR-M610-B	TGuide Blood Total RNA Kit	610	Whole blood (fresh/stored in RNA stabilizer)/leukocyte
OSR-M610	TGuide Cells/Tissue/Plant RNA Kit	610	Animal and plant cells/tissues

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