TIANGEN®

TIANGEN Featured Product

Nucleic Acid Extraction Kits

- Genomic DNA
- Plasmid DNA
- PCR Clean up & Gel Extraction
- Total RNA

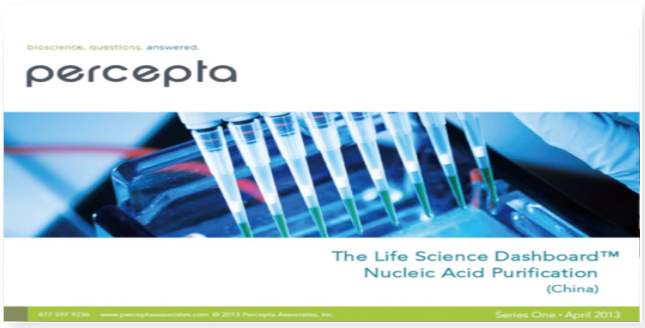
TÜVRheinland CERTIFIED

TÜV SÜD

All processes from raw material input to comprehensive control of finished product are strictly controlled under the EN ISO 13485 and ISO 9001 certified by TÜV.

ABOUT US

Nucleic acid extraction is the starting point for most biology projects. The yield, integrity and purity of nucleic acids are directly affecting the success of downstream experiments. TIANGEN BIOTECH (Beijing) Co., Ltd. is a high-tech biological enterprise integrating R&D, production, sales and customer service. We are recognized as a leading company in the field of nucleic acid purification in China, with products widely used in academic research of life science, medical, agricultural, pharmaceutical and environmental fields, as well as in industry.

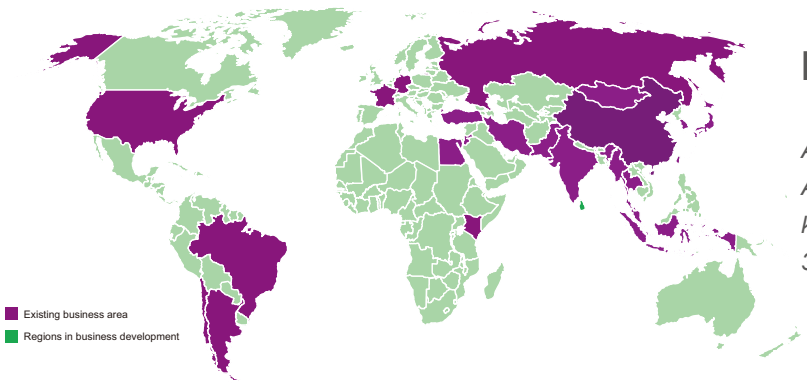


TIANGEN Nucleic Acid Extraction Product Line develops two major branches: column-based method and automatic method. The column nucleic acid extraction kits cover genomic DNA, total RNA, non-coding RNA, plasmid, gel/PCR product extraction and purification, etc., and have obtained more than 10 national invention patents.

According to statistics, our customers distribute across universities, research institutes, hospitals, diagnostic laboratories, blood stations, entry-exit inspection and quarantine units, etc. More than 90% of molecular biology laboratories in mainland China are using TIANGEN products, with approximately 200,000 preps/rxns TIANGEN products used every day.

Everyday 200,000 times

TIANGEN automated instruments and supporting reagent kits target the sample types of greatest high throughput demand (such as blood, animal tissues and plants).



Exported to 30+ countries/regions

After 10-year development, TIANGEN TGuide Automated extractors and supporting magnetic kits have widely served customers in more than 30 countries in various industry application fields.

Widely Cited

More than **90,000** literatures published mentioned using TIANGEN products.

2015
Nature Medicine
Nature Communications
Developmental Cell
Cell Research
PNAS
Oncogene
PloS Genetics
PLoS Pathogens
Genetics in Medicine
Neuropsychopharmacology
Molecular Plant

2016
Nature Biotechnology
PNAS
Cell Research
The Plant Cell
Nucleic Acids Research
Oncogene
Cancer Research
Molecular Plant
Cell Reports
PLoS Pathogens

2017
Nature
Cell
Cell Stem Cell
PNAS
Nature Communication
Cell Research
Molecular Cell
Developmental Cell
Cell Death and Differentiation
Oncogene

2018
Nature
Nature Biotechnology
Nature Medicine
Cell
Nature Genetics
Cell Stem Cell
Cancer Cell
Nature Immunology
Cell Metabolism
Immunity
Nature Cell Biology
Cell Host & Microbe
Science Translational Medicine
Cell Research
Circulation Research

2019
Cell
Nature Biotechnology
Nature Medicine
Nature genetics
Cell Metabolism
Immunity
Cell Stem Cell
Cell Research
Nature Cell Biology
Cell Host & Microbe
Hepatology
Molecular Cell
Neuron
Science Advances

2020
Nature
Science
Cell
Nature Biotechnology
Nature Medicine
Cell Research
Advanced Science
Nature Microbiology
Science Advances
ACS Catalysis
Nature Communication
Molecular Plant
Nucleic Acids Research

2021
Nature Biotechnology
Science
Cell
Nature Genetics
Cell Metabolism
Nature Immunology
Cell Host & Microbe
Nano Today
Hepatology
National Science Review
Nucleic Acids Research
Nature plants
Systematic Biology
Nature Communications

2022
Nature
Cell
Molecular Cancer
Cell metabolism
Journal of Extracellular Vesicles
Cell Research
Annals of the Rheumatic Diseases
Signal Transduction and Targeted Therapy
Journal of Hematology & Oncology
National Science Review
Nucleic Acids Research
Advanced Science
Nano-Micro Letters
Molecular Biology and Evolution
Autophagy
Cell Death and Differentiation
Nature Plants
Nature Ecology & Evolution

Feel free to visit our website and search for publications of products of your interests!

Content

Selection Guide - Genomic DNA Extraction

Sample Type	Product Name	Material No.	Sample Input	Purification Method	Feature
Tissues/ Cell/ Blood	TIANamp Genomic DNA Kit	GDP304	Tissue: 30 mg Cell:10^6-10^7 cells Mammal Blood: 0.2-0.5 ml Birds/amphibians blood: 5-20 μl	Spin column -based	Widely used for DNA extraction of various types of samples, such as cultured cells, animal tissues and small volume whole blood (≤ 1ml).
Plant	Super Plant Genomic DNA Kit	GDP360	Fruit: apple, watermelon, banana, pear, loquat, sweet potato, potato, etc. Leaf: cotton, strawberry, plum blossom, pepper, pine, potato, tomato, soybean, grape, fern, rosaceous plant, tree leaves, oxytropis ochrocephala, seaweed, peach tree, bamboo, willow, etc. Dry powder: plant leaf dry powder, plant seed dry powder, soybean powder and leaves dried by silica gel Others: fungi, straw mushroom, lentinus edodes, thraustochytrids, etc.	Spin column -based	Suitable for the DNA extraction from common and tricky samples (such as polysaccharide and polyphenol rich plants/fungi). Safe and nontoxic reagent.
Bacteria	TIANamp Bacteria DNA Kit	GDP302-02	Bacterial solution: 1-5 ml Cell: 10^6-10^8 cells	Spin column-based	Ultra pure genomic DNA can be obtained within 1 h.
Stool	TIANamp Stool DNA Kit	GDP328-02	180-220 mg	Spin column-based	Suitable for solid or liquid fecal samples from different sources. High-quality genomic DNA can be obtained within 1 h.
Soil	TIANamp Soil DNA Kit	GDP336-02	250 mg	Spin column-based	Suitable for nucleic acid purification from various soil samples.
Swab	Hi-Swab DNA Kit	GDP362-02	Swab: 1 Saliva: 0.3-0.35 ml	Spin column-based	Suitable for swabs, throat swabs, mouthwashes and other oral samples.

TIANamp Genomic DNA Kit

——*Tissue/cell/blood sample DNA Kit*

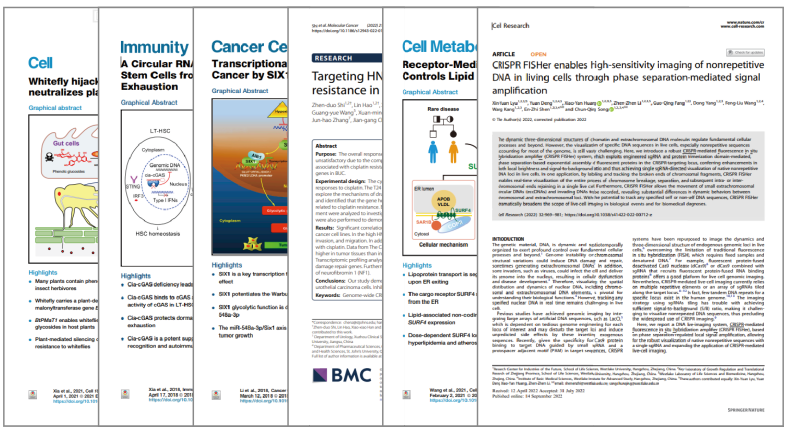
- **Wide adaptability:** Preferred kit for genomic DNA extraction from animal tissues, cells and blood.
- **Simple and fast:** The whole experiment can be completed in 1h.
- **Highly pure:** The DNA product is of high quality, meeting the needs of various downstream experiments.

Gold Choice for Animal Samples

Yield for reference

Sample type	Sample amount	DNA yield (μg)
Mammalian whole blood	200-500 μl	3-10
Poultry,amphibian whole blood	5-20 μl	5-40
Cultured cells	10^6-10^7 Cells	5-30
Animal tissues	30 mg	10-30
Mouse tail	1.2 cm (Tip)	10-25
Rat tail	0.6 cm (Tip)	20-40

Widely Cited



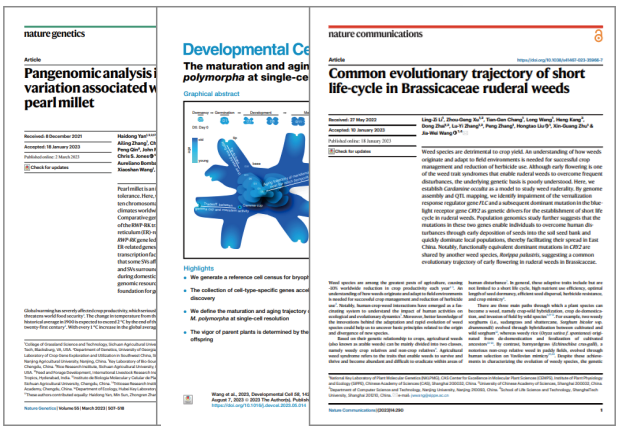
Cited by 3500+ publications

Product Name	Cat. No	ID	Packing Size
TIANamp Genomic DNA Kit	4992254	GDP304-03	200 preps

Super Plant Genomic DNA Kit

——*For common & tricky plant DNA extraction*

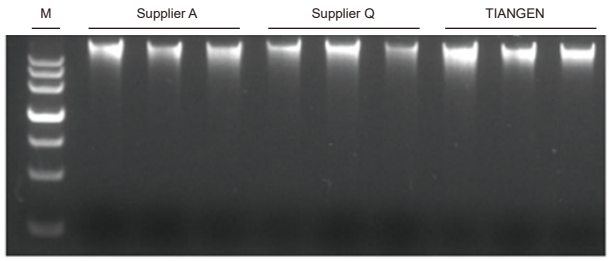
- **Wide applications:** Suitable for various plant tissues, especially for polysaccharides & polyphenolics-rich plants.
- **Simple and fast:** Ultra-pure gDNA could be obtained within 1 hour.
- **Non-toxic:** Safe operation because no need of phenol or chloroform for extraction.
- **High purity and efficiency:** Ultra-pure DNA can be obtained efficiently, which can be applied directly in molecular biology experiments such as chip hybridization, NGS, etc.



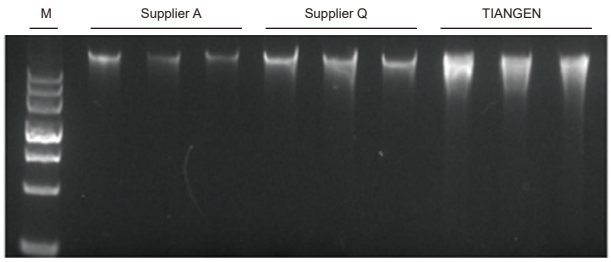
Primary choice of plant scientists

Applicable for wet sample (<100 mg) and dry powder (<30 mg).

Experimental Example

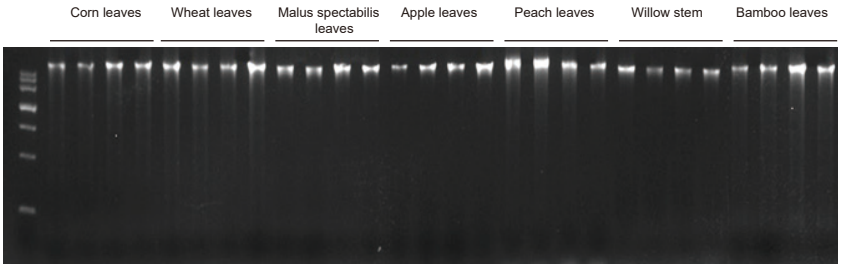


Genome extraction from leaves of Malus spectabilis



Genome extraction of peach leaves

DNA was extracted from leaves of 100 mg Malus spectabilis and peach tree with Super Plant Genomic Kit and relevant kits of supplier A and Q according to the instructions. M:TIANGEN Marker D15000. 3 μl of 100 μl eluate was loaded per lane. The experimental results show that Super Plant Genomic Kit has higher DNA extraction yield.



DNA was extracted from leaves of 100 mg various plant tissues with Super Plant Genomic Kit according to the instruction. M:TIANGEN Marker D15000. 3 μl of 100 μl eluate was loaded per lane. The experimental results show that Super Plant Genomic Kit can be used to extract a variety of complex plant samples, including polysaccharides & polyphenolics-rich plant samples, with high extraction yield and purity.

Product Name	Cat. No	ID	Packing Size
Super Plant Genomic DNA Kit	4992879	GDP360	50 preps

TIANamp Bacteria DNA Kit

——*For Gram$^+$ and Gram$^-$ bacteria gDNA extraction*

- **Simple and fast:** Pure genomic DNA of Gram-negative bacteria can be obtained within 1 hour.
- **Excellent quality:** The purified DNA can be directly used in downstream molecular experiments such as PCR, restriction endonuclease digestion, Southern blotting, etc.

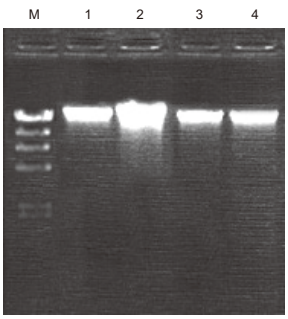
Cited by 2300+ publications

Yield for reference

Bacteria Type	Gram-negative bacteria (such as *E.coli*)	Gram-positive bacteria (such as Glucococcus epidermidis)
Bacteria Concentration	2×10^8 cells/ml	3.5×10^8 cells/ml
Culture Volume	1 ml	1 ml
DNA Yield	15-20 μg	6-13 μg
OD_{260} / OD_{280}	1.7-1.9	1.7-1.9

Note: The DNA extraction amount may vary depending on the bacteria types and culture time, etc. Gram-positive bacteria require special treatments such as lysozyme for lysing, and the genomic DNA extraction can be performed according to the procedures of Gram-negative bacteria.

Experimental Example



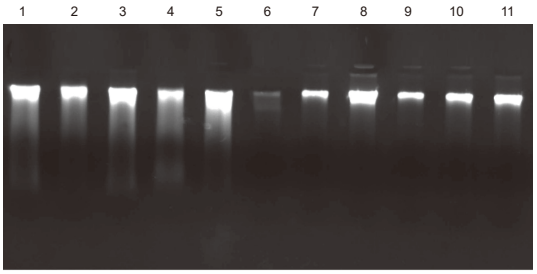
Extraction of bacterial genomic DNA from various sources using TIANamp Bacteria DNA Kit.
Starting amount: 1 ml of overnight bacteria culture medium. Elution volume: 100 μl. Loading volume: 3 μl. The concentration of the agarose gel was 1%. The electrophoresis was performed under 6V/cm for 20 min.
M: λDNA/Hind III Marker;
1. λDNA;
2: *E.coli*;
3: *Staphylococcus epidermidis*;
4: *Staphylococcus aureus*.

Product Name	Cat. No	ID	Packing Size
TIANamp Bacteria DNA Kit	4992448	GDP302-02	50 preps

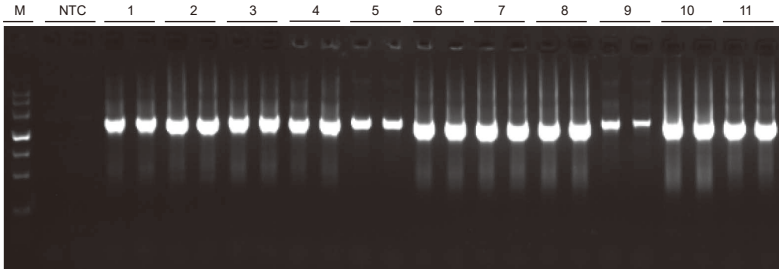
TIANamp Soil DNA Kit

——*Rapid extraction of genomic DNA from various soil samples*

- **Wide application:** Isolate pure DNA from various soil samples, such as flower bed soil, potting soil, farmland soil, forest soil, sludge, red soil, black soil, dust and many other kinds of soil samples.
- **Rapid protocol:** The whole experimental procedure could be finished in short time.
- **High purity:** The application of spin column can ensure the high purity of DNA, which can be directly used in downstream experiments.



Genomic DNA purified from different soil samples by TIANamp Soil DNA Kit. Sample amount: 250 mg; 5 μl of 50 μl eluents were loaded per lane on a 1% agarose gel.
1. Black soil from Hei Long Jiang;
2. Laterite from Guangdong;
3. Loess from Beijing;
4. Laterite from Zhejiang;
5. Laterite from Yunnan;
6. Laboratory dust;
7. Forest soil;
8. Sludge;
9. Farmland soil;
10. Potting soil;
11. Flower bed soil.



Genomic DNA purified from different soil samples using TIANamp soil DNA kit were tested by PCR amplification. 6 μl of 20 μl PCR products were loaded per lane.
1. Black soil from Hei Long Jiang;
2. Laterite from Guangdong;
3. Loess from Beijing;
4. Laterite from Guangxi;
5. Laboratory dust;
6. Forest soil;
7. Potting soil;
8. Flower bed soil;
9. Laterite from Zhejiang;
10. Sludge;
11. Farmland soil;
M: TIANGEN Marker III
NTC: negative control without templates

Important Notes

- Excessive DNA may inhibit the downstream PCR reaction. In this case, it is recommended to dilute the DNA template before using.

Product Name	Cat. No	ID	Packing Size
TIANamp Soil DNA Kit	4992288	GDP336	50 preps

TIANamp Stool DNA Kit

——*Rapid extraction of high-quality genomic DNA from various stool samples*

- **Wide range of application:** Suitable for solid or liquid feces samples from different sources.
- **Simple and fast:** Pure genomic DNA can be obtained within 1 hour.
- **High purity:** High efficiency precipitant can remove impurities such as humic acid, the purity of extracted DNA is high, which can be directly used in downstream experiments.

Product Name	Cat. No	ID	Packing Size
TIANamp Stool DNA Kit	4992205	GDP328	50 preps

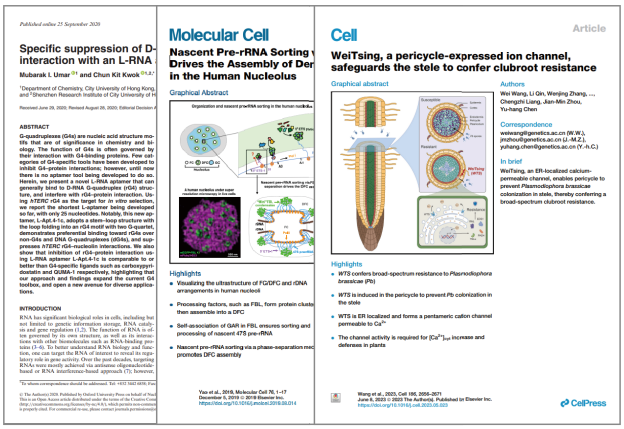
Selection Guide - Plasmid DNA & Gel Purification Extraction

Sample Type	Material No.	Product Name	Feature	Extraction purity	Copy number	Sample input (ml)	Yield (μg)
Mini Plasmid Kit	GDP103	TIANprep Mini Plasmid Kit	Classic mini plasmid kit with the highest market share	Ordinary	Low	1-5	3–12
					High	1–5	6–30
	GDP105	TIANprep Rapid Mini Plasmid Kit	Convenient and rapid, 8 min quick extraction; The colorful indicator added in the buffer	Ordinary	Low	1–4	3–10
					High	1–4	6–24
	GDP123	EndoFree Mini Plasmid Kit	The extracted plasmid can be used to transfect endotoxin-sensitive cells	Ultra low endotoxin residue	Low	1–5	3–12
					High	1–5	6–30
	GDP124	TIANprep Mini Plus Plasmid Kit	The best-selling high-purity medium volume extraction kit	High purity	Low	5–15	5–25
					High	5–15	15-70
Midi Plasmid Kit	GDP108	EndoFree Midi Plasmid Kit	Ultra low endotoxin and medium volume extraction	Ultra low endotoxin residue	Low	50	20-50
					High	20	80-250
Maxi Plasmid Kit	GDP117	EndoFree Maxi Plasmid Kit	High-purity plasmid extraction, with the colorful indicator for lysis degree observation	High purity	Low	200	200-600
					High	100	500-1500
	GDP120	EndoFree Maxi Plasmid Kit V2	It is an enhanced plasmid large volume extraction kit, and the extracted plasmid can be used to transfect endotoxin-sensitive cells	Ultra low endotoxin residue	Low	200	50-300
					High	100	500-1500

TIANprep Mini Plasmid Kit

——*For 1-5 ml bacteria culture*

- **Fast:** Fewer steps, simpler operation and less time (18 min protocol).
- **Efficient:** More than 85% of plasmid DNA can be extracted from bacteria.



30,000,000 preps

used in molecular laboratories.

Yield for reference

Plasmid Type	Bacterial Culture Volume	Plasmid Yield	Plasmid
Low Copy	1-5 ml	3-12 μg	pBR322, pACYC, pSC101, SuperCos, pWE15
High Copy	1-5 ml	6-30 μg	pTZ,pUC,pBS,pGM-T

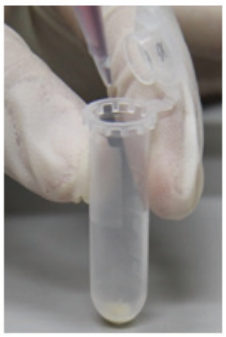
Product Name	Cat. No	ID	Packing Size
TIANprep Mini Plasmid Kit	4992420	GDP103-03	200 preps

TIANprep Rapid Mini Plasmid Kit

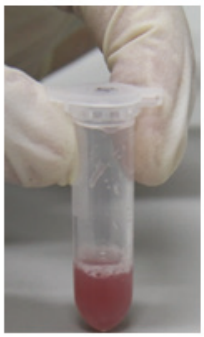
——*For fast purification of plasmid DNA of molecular biology grade by alkaline lysis technique*

8 min only

- Colorful indicators, the mixing status can be seen.
- Primary choice for researchers.

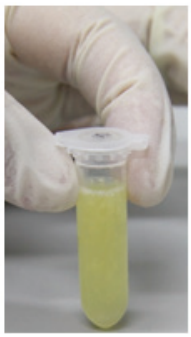


E.coli



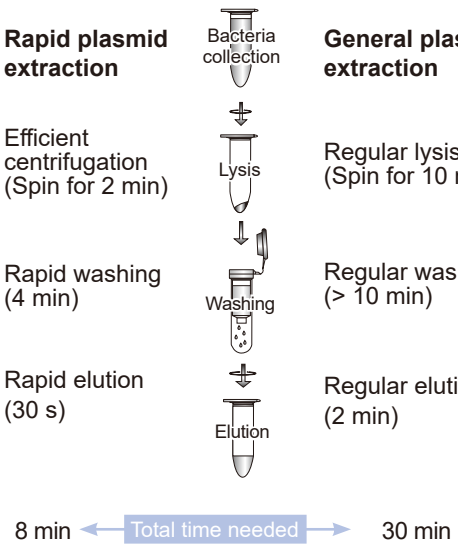
+ Buffer P1

+ Buffer P2

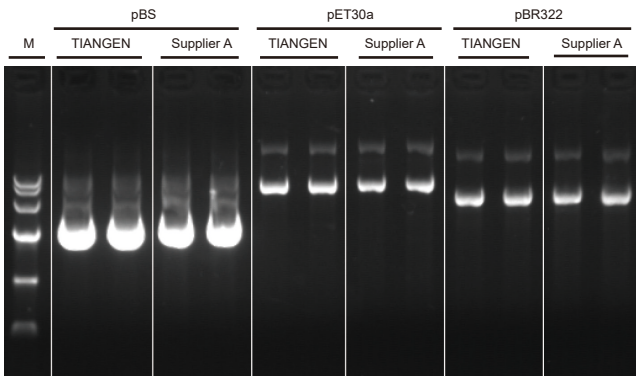


+ Buffer P3

Comparison of The Extraction Workflow



With high-efficiency lysate treatment and optimized buffer system, TIANprep Rapid Mini Plasmid Kit can easily obtain higher quality products while saving a lot of operation time



Comparison between TIANprep Rapid Mini Plasmid Kit and Supplier A (general plasmid DNA purification kit) by purifying the same plasmid at the same time.
Sample volume: 3 ml overnight culture of *E.coli* (OD_{600}=1.8); Elution volume: 50 µl; Loading volume: 1 µl pBS, 3 µl pET30a, 3 µl pBR322.
The electrophoresis was conducted at 6 V/cm for 30 min on a 1% agarose gel. M: TIANGEN DNA Marker IV.
Conclusion: Agarose gel electrophoresis shows that TIANprep Rapid Mini Plasmid Kit could obtain same yield of plasmid DNA as that by the general plasmid purification kit within 8 min.

Product Name	Cat. No	ID	Packing Size
TIANprep Rapid Mini Plasmid Kit	4992191	GDP105	200 preps

EndoFree Mini Plasmid Kit

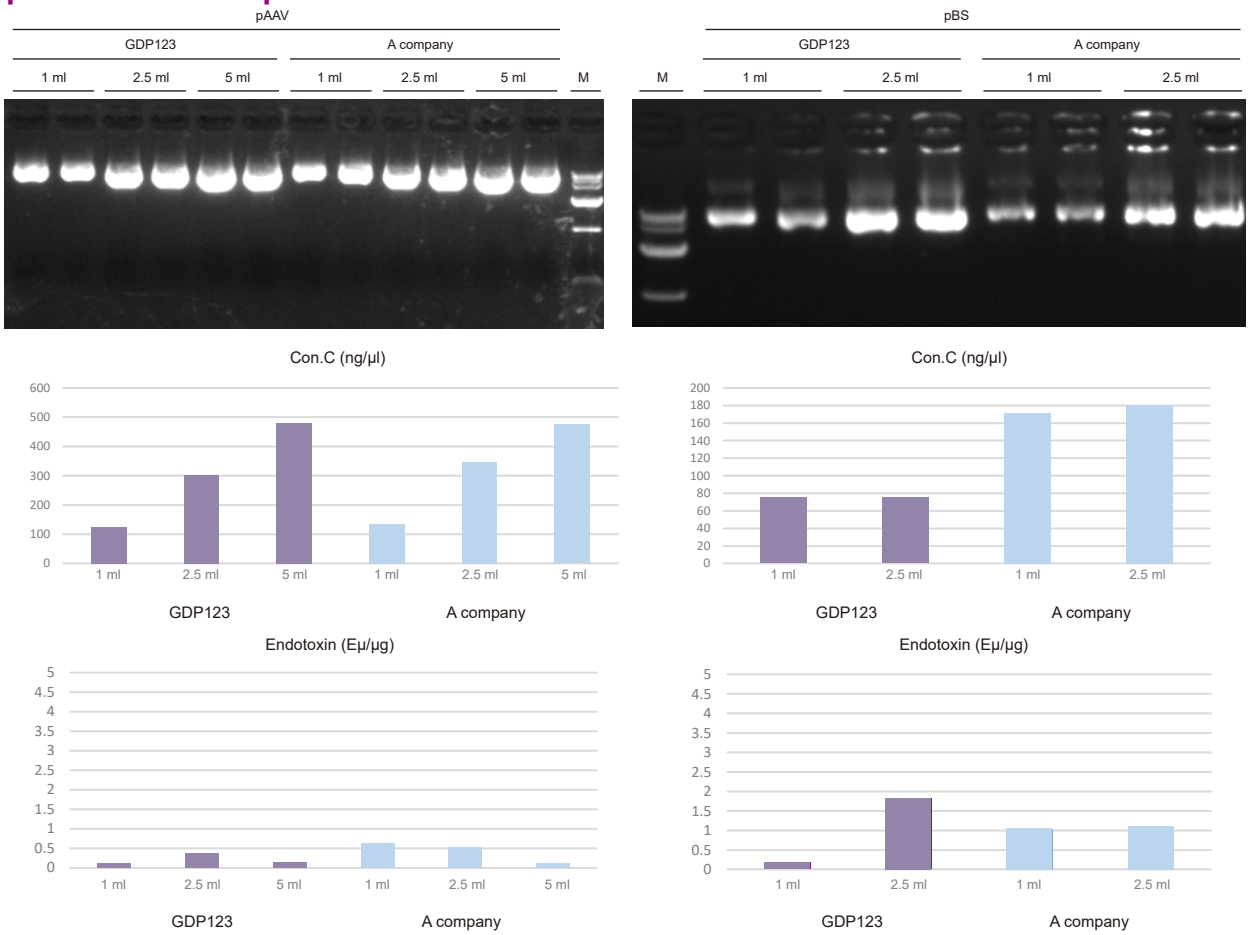
——*mini kit for efficient and rapid extraction of endofree plasmids*

- **High purity:** Unique endotoxin precipitation technology is used to specifically remove endotoxin.
- **Efficient transfection:** Suitable for transfection of most cells including endotoxin sensitive cells.
- **Wide range of applications:** Plant and animal cell transfection, molecular biology experiments can be applied.

Yield for reference

Plasmid Type	Bacterial Culture Volume	Plasmid Yield	Plasmid
Low Copy	1-5 ml	3-12 μg	pBR322,pACYC,pSC101.SuperCos, pWE15
High Copy	1-5 ml	6-30 μg	pTZ,PUC,PBS,PGM-T

Experimental Example



TIANGEN Endofree mini plasmid kit GDP123 and A Company kit were used respectively. Different volumes of pAAV plasmids were extracted at the same time, the elution volume was 50 μl, 2 μl of samples were taken, the concentration of agarose gel was 1%, and electrophoresis was performed at 6 V/cm for 18 min.
The results showed that for different volumes of bacterial culture, the yield of GDP123 was comparable with A company.
The endotoxin level can meet the high requirements of transfection and other experiments.
M: TIANGEN DNA Marker D15000

TIANGEN Endofree mini plasmid kit GDP123 and A Company kit were used respectively. Different volumes of pBS plasmids were extracted at the same time, the elution volume was 50 μl, 2 μl of samples were taken, agarose gel concentration was 1%, and electrophoresis was performed at 6 V/cm for 18 min.
The results showed that for different volumes of bacterial culture, TIANGEN GDP123 was comparable to A company, and the endotoxin level could meet the high requirements of transfection and other experiments.
M: TIANGEN DNA Marker D15000

Product Name	Cat. No	ID	Packing Size
EndoFree Mini Plasmid Kit	4995522	GDP123-02	50 preps

TIANprep Mini Plus Plasmid Kit

——*For 5-15 ml of the overnight bacteria culture*

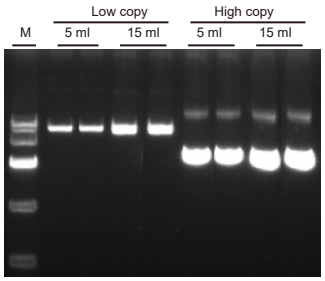
- **Rapid and high yield:** 5-70 μg plasmid DNA can be extracted in around 1 hour.
- **Wide range of applications:** Restriction endonuclease digestion, PCR, sequencing, ligation, transformation, as well as gene therapy, cell microinjection, gene silencing, transcription, etc.

Yield for reference

Plasmid Type	Bacterial Cells Volume	Plasmid Yield	Plasmid
Low Copy	5-15 ml	5-25 μg	pBR322, pACYC, pSC101, SuperCos, pWE15
High Copy	5-15 ml	15-70 μg	pTZ, pUC, pBS, pGM-T

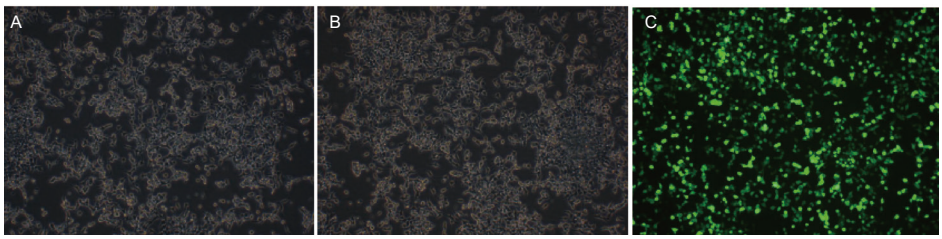
Experimental Example

Suitable for the extraction of high/low copy plasmid



Extraction of plasmid DNA from various volume of bacteria culture medium using TIANprep Mini Plus Plasmid Kit.
Elution volume: 200 μl; Loading volume: 3 μl low-copy plasmid (pBR322), 2 μl high-copy plasmid (pBS).
The electrophoresis was conducted at 6 V/cm for 30 min on a 1% agarose.

Cell transfection by the purified plasmid



Before transfection (normal vision) | After transfection (normal vision) | After transfection (fluorescent vision)

The pEGFP plasmid purified by TIANprep Mini Plus Plasmid Kit was transfected into 293T cells. Expression of GFP were detected in 48 h post-transfection.

Product Name	Cat. No	ID	Packing Size
TIANprep Mini Plus Plasmid Kit	4992422	GDP124-02	50 preps

EndoFree Midi Plasmid Kit

——*For extraction ultralow endotoxin plasmid from 20-50 ml bacteria culture*

- **High purity and yield:** For purification of ultrapure 20-250 μg plasmid DNA from 20-50 ml bacteriaculture.
- **High quality:** High proportion of super-coiled structure.

Yield for reference

Plasmid Type	Bacterial Culture Volume	Plasmid Yield	Plasmid
Low Copy	50 ml	20-50 μg	pBR322,pACYC,pSC101.SuperCos,pWE15
High Copy	20 ml	80-250 μg	pTZ.pUC.PBS.PGM-T

Product Name	Cat. No	ID	Packing Size
EndoFree Midi Plasmid Kit	4992853	GDP108	10 preps

EndoFree Maxi Plasmid Kit

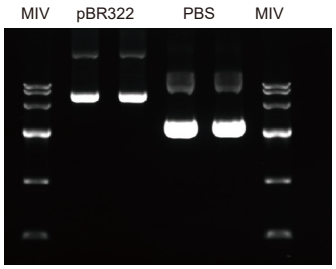
——For 100-200 ml bacteria culture

- **Fast and high yield:** 200 μg-1.5 mg plasmid DNA yield by 35 min protocol with high proportion of super-coiled structure.
- **High-purity:** Highly pure plasmid DNA are acquired by unique buffer system and Spin Column CP6.
- **Excellent transfection efficiency:** Suitable for transfection experiments of most cell lines.
- **Wide range of applications:** Suitable for restriction endonuclease digestion, transformation, sequencing, microinjection, gene silencing and transfection experiments.

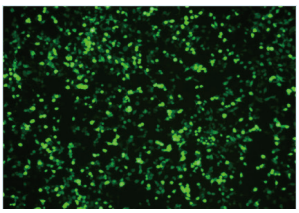
2,000,000 preps used in molecular laboratories
1000+ publications cited

Experimental Example

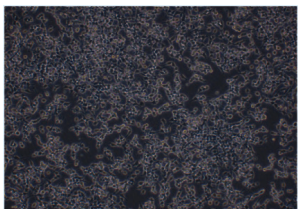
High/low copy plasmid extraction



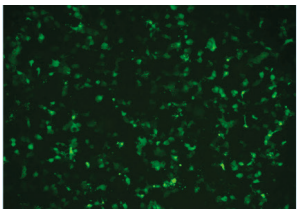
Low-copy plasmid pBR322, extracted from 200 ml bacterial culture using EndoFree Maxi Plasmid Kit, was eluted in 1 ml Buffer TB, with a concentration of 0.6 μg/μl.
High-copy plasmid pBS, extracted from 100 ml bacterial culture using EndoFree Maxi Plasmid Kit ,was eluted in 1 ml Buffer TB, with a concentration of 1.2 μg/μl.
MIV: TIANGEN DNA Marker IV
pBR322: 2μl, pBS : 2μl



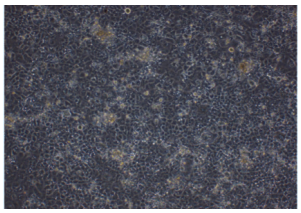
pEGFP transfected into 293T cells (Fluorescent vision)



pEGFP transfected into 293T cells (Normal vision)



pEGFP transfected into Huh7 cells (Fluorescent vision)



pEGFP transfected into Huh7 cells (Normal vision)

pEGFP obtained with EndoFree Maxi Plasmid Kit were separately transfected into endotoxin-insensitive cell line 293T and endotoxin-sensitive cell line Huh7 cells. Expression of GFP were detected in 24 hours after transfection.

Yield for reference

Plasmid Type	Bacterial Culture Volume	Plasmid Yield	Plasmid
High copy	100 ml	500 μg-1.5 mg	pTZ, pUC, pBS, pGM-T
Low copy	200 ml	200 μg-600 μg	pBR322, pACYC, pSC101, SuperCos, pWE15

Product Name	Cat. No	ID	Packing Size
EndoFree Maxi Plasmid Kit	4992194	GDP117	10 preps

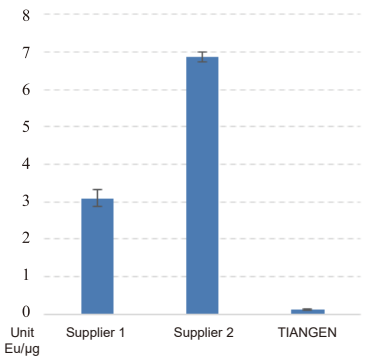
EndoFree Maxi Plasmid Kit V2

——*Get endotoxin free plasmid for sensitive downstream experiments*

- **High purity:** The unique endotoxin precipitation technology is adopted to specifically remove endotoxin.
- **Easy to operate:** The binding column technology is used to efficiently bind plasmid DNA, which makes the operation easier.
- **High-efficiency transfection:** Suitable for the transfection of most cell lines including endotoxin-sensitive cells.
- **Wide range of applications:** The purified plasmid can be applied in the transfection of animal and plant cells as well as molecular biology experiments.

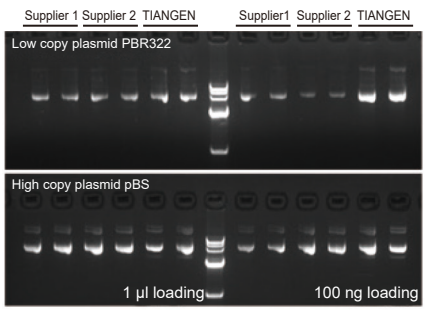
40 min protocol
Up to 1.5 mg endotoxin free plasmid yield.
Endotoxin levels: ≤0.1 EU/μg

Experimental Example 1



The unique endotoxin removal reagent Buffer ER can efficiently remove endotoxin residues in the reaction system, and high-purity plasmid can be obtained. The plasmid endotoxin residue is ≤0.1 Eu/μg.

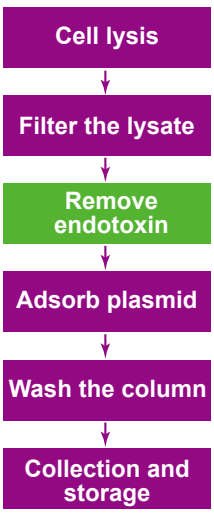
Experimental Example 2



The plasmids purified using EndoFree Maxi Plasmid Kit V2 and the same products from Supplier 1 and Supplier 2 are eluted with the same volume of elution buffer. 1 μl plasmid was loaded per lane to estimate the concentration of the plasmid. 100 ng of the plasmid whose concentration was determined by spectrophotometer was loaded into the same gel to determine whether the concentration value was falsely high.

Conclusion: The electrophoresis result shows the actual concentration of the plasmid extracted by the EndoFree Maxi Plasmid kit V2, whether high copy or low copy, is significantly higher than that extracted by suppliers 1 and 2.

Experimental Procedure



Yield for reference

Plasmid Type	Bacterial Culture Volume	Plasmid Yield	Plasmid
High copy	100 ml	500 μg-1.5 mg	pTZ, pUC, pBS, pGM-T
Low copy	200 ml	50 μg-300 μg	pBR322, pACYC, pSC101, SuperCos, pWE15

Product Name	Cat. No	ID	Packing Size
EndoFree Maxi Plasmid Kit V2	4992438	GDP120-01	10 preps

TIANgel Purification Kit

——*Fast and highly efficient DNA Purification*

- **Fast:** The entire operation process is fast and convenient, and can be completed in around 10 min.
- **Convenient:** Gel slides can be dissolved at room temperature without the use of balance buffer.
- **High efficient:** The unique spin column and buffers ensure maximal recovery of high-purity target DNA.
- **Compatibility:** Applicable for gel and PCR product purification.

Room temperature gel dissolution

10 min protocol

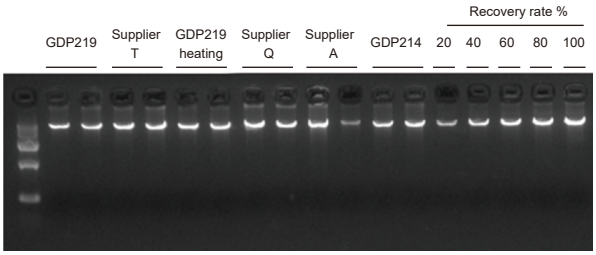
Cover 100 bp -15 kb fragments

Up to 80% recovery rate

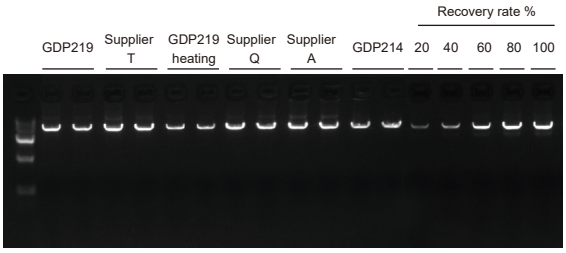
Gel cutter supplied

Experimental Example

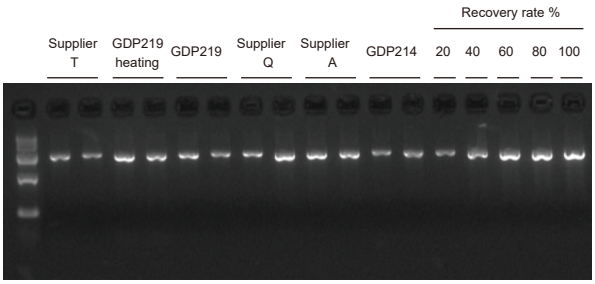
Electrophoregram of 10 kb DNA recovery



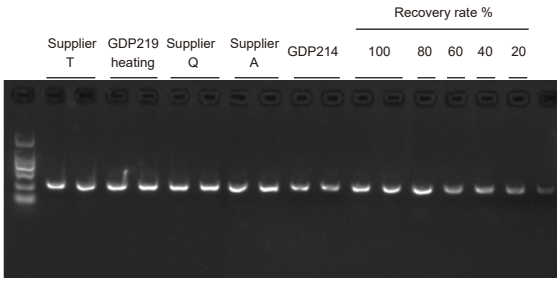
Electrophoregram of 5.5 kb DNA recovery



Electrophoregram of 2 kb DNA recovery



Electrophoregram of 300 bp DNA recovery



Different length of DNA fragments were purified by and relevant products from Supplier T, Q and A. 3 μl of the 50 μl eluent was loaded per lane.

Product Name	Cat. No	ID	Packing Size
TIANgel Purification Kit	4992984	GDP219-03	200 preps

Selection Guide - RNA Extraction

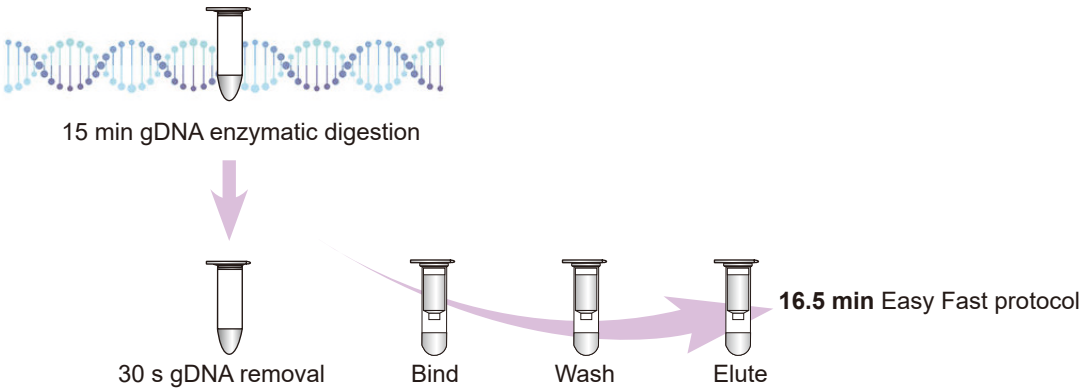
Sample Type	Product Name	Material No.	Packing Size	Sample Input	Purification Method	Feature
Tissue /Cell	RNA Easy Fast Tissue/Cell Kit	GDP451	50 preps	Cell:<10^7 Tissue:10-20 mg	Spin column -based	RNA extraction in 20 min, no toxic reagents. gDNA removal in 30 sec.
Cell/ Bacteria/ Tissue	RNAprep Pure Cell/Bacteria Kit	GDP430	50 preps	Cell:<10^7 Bacteria: <10^9	Spin column -based	30-40 min experiment. Product of high purity and good integrity
Universal	RNAsimple Total RNA Kit	GDP419	50 preps	Universal RNA extraction kit	Spin column-based	Guanidine isothiocyanate/phenol extraction, a brand-new RNA column-based purification Cost-effective RNA purification kit..
Virus	TIANamp Virus RNA Kit	GDP315-R	50 preps	Serum / plasma /body fluid samples: 140-560 μl	Spin column -based	Highly pure virus RNA can be obtained within 1 h.
Virus	TIANamp Virus DNA/RNA Kit	GDP315	50 preps	Serum / plasma /body fluid sample: 0.2 ml	Spin column-based	Virus DNA and RNA of high quality can be obtained by the rapid protocol, without organic reagent extraction or ethanol precipitation.
Plant	RNAprep Pure Plant Plus Kit	GDP441	50 preps	Pulp, leaf, flower, stem, root, seed, tuber / tuberous root, Herbal medicine; fungi, algae, etc.	Spin column-based	Simple and rapid, without phenol / chloroform; efficient removal of gDNA on DNase I column; Unique SL lysis buffer can effectively remove polysaccharides and polyphenols; Suitable for a wide range of samples; Product directly applicable for downstream experiments with high purity requirements.

RNA Easy Fast Tissue/Cell Kit

——*Animal tissue/cell RNA extraction*

- **Fast gDNA removal:** By the gDNA Eraser Column, achieve easy and rapid clean extraction.
- **Compatibility:** Applicable to animal tissue, cell total RNA extraction.
- **Pure RNA:** Applicable for various downstream experiments.

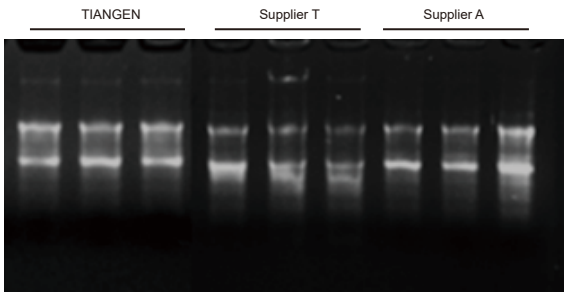
Rapid Extraction of Ready to Use RNA



Superior Performance

Experimental Example

Rat liver



Sample ID	Nucleic Acid Conc.	Unit	$OD_{260/280}$	$OD_{260/230}$
TIANGEN	563.9	ng/μl	2.06	2.3
TIANGEN	617.3	ng/μl	2.08	2.36
TIANGEN	547.6	ng/μl	2.08	2.24
Supplier A	318.6	ng/μl	2.11	2.22
Supplier A	355.8	ng/μl	2.1	2.29
Supplier A	514	ng/μl	2.09	2.16
Supplier T	497.3	ng/μl	2.05	1.8
Supplier T	347.6	ng/μl	2.07	1.34
Supplier T	259	ng/μl	2.11	2.13

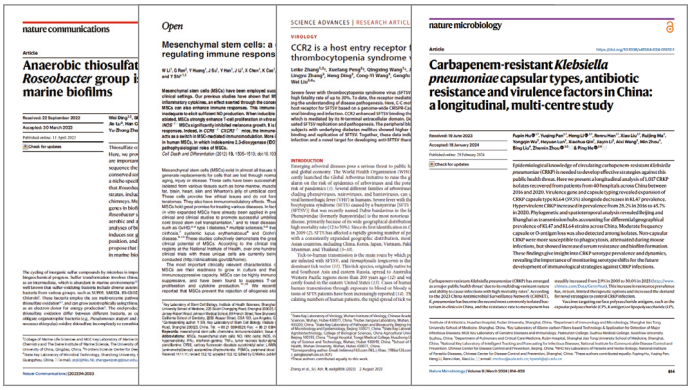
RNA extracted from 15 mg rat liver sample using the RNA Easy Fast Tissue/Cell Kit and relevant product from supplier A and T.
Elution volume: 100 μl; Loading volume: 3 μl
M: TIANGEN Marker D15000
Experiment result: RNA Easy Fast Tissue/Cell Kit has higher extraction rate than the relevant product from supplier A and T.

Product Name	Cat. No	ID	Packing Size
RNA Easy Fast Tissue/Cell Kit	4992732	GDP451	50 preps

RNAprep Pure Cell / Bacteria Kit

——For purification of high-quality total RNA from cells and bacteria

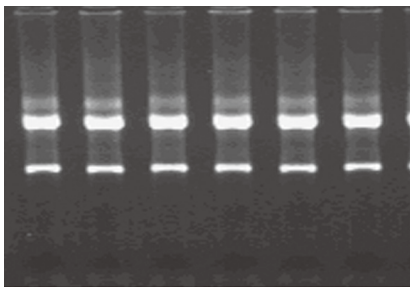
- **Reliable:** Optimized buffers and protocols for cultured cells and bacteria samples make the process simple and convenient. Unique RNase-Free Filtration Columns CS eliminates other contaminations.
- **Efficient removal of gDNA:** High-efficient DNase I is supplied for rapid removal of gDNA on the column.
- **Easy and fast:** RNA extraction experiments can be completed in 1 hour.
- **Safe and low toxicity:** No toxic organic reagents such as phenol and chloroform are needed.



Cited by 1500+ publications

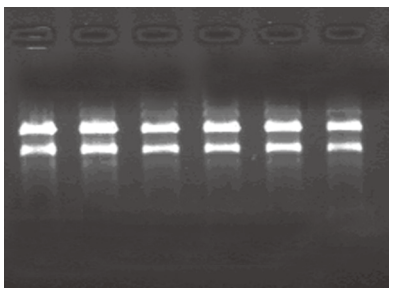
Experimental Example

Human Jurkat Cells



Material: Human Jurkat Cells (1×10^6)
Method: The total RNA of Human Jukat Cells was isolated using the RNAprep Pure Cell/Bacteria Kit.
Results: Please see the above agarose gel electrophoresis picture. 2-4 μl of 50 μl eluates were loaded per lane. The electrophoresis was conducted at 6 V/cm for 30 min on a 1% agarose.

E.coli



Material: TOP10 *E.coli* (1×10^8)
Method: The total RNA of TOP10 *E.coli* was isolated using the RNAprep Pure Cell/Bacteria Kit.
Results: Please see the above agarose gel electrophoresis picture. 2-4 μl of 50 μl eluates were loaded per lane. The electrophoresis was conducted at 6 V/cm for 30 min on a 1% agarose.

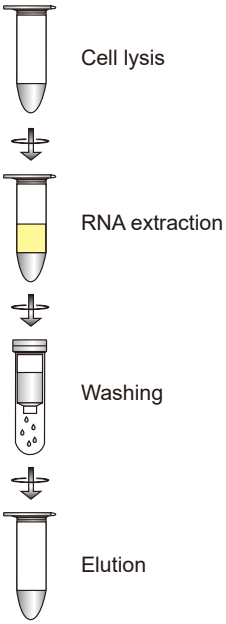
Product Name	Cat. No	ID	Packing Size
RNAprep Pure Cell / Bacteria Kit	4992235	GDP430	50 preps

RNAsimple Total RNA Kit

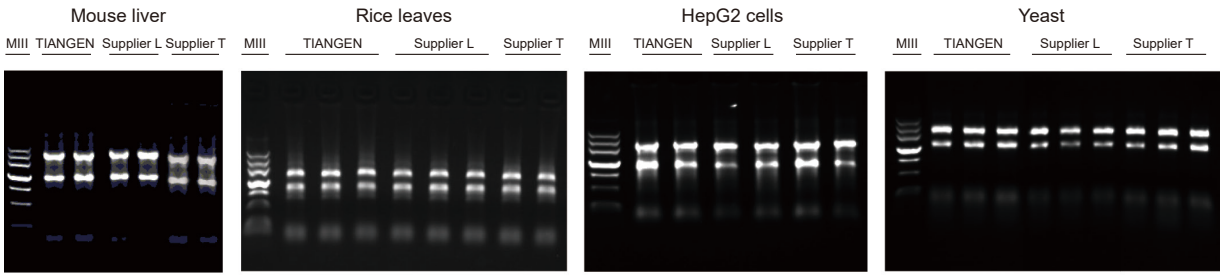
——*For the high-efficient total RNA extraction using the widely used centrifugal column*

- The high-purity ready-to-use RNA is suitable for sensitive downstream applications.
- Wide applications. The purified RNA can be applied to various experimental samples.
- The experiment can be completed in 1 hour with simple operations.

Experimental Procedure



Experimental Example



Method: 30 mg rat liver tissue, 100 mg rice leaves were collected by liquid nitrogen grinding; 1×10^6 HepG2 cultured cells and 700 μl Saccharomyces Cerevisiae culture medium (OD_{600}=0.9) were collected by centrifugation. 1 ml of TRNzol Universal Reagent from TIANGEN and the relevant products from supplier L and T were added to each aliquot of sample and RNA extraction was performed following the protocols provided by each suppliers. The elution volume was 80 μl, 50 μl, 30 μl and 30 μl for the four samples respectively. 3 μl of the eluate was loaded per lane.
MIII: TIANGEN Marker III;
The electrophoresis was conducted at 6 V/cm for 30 min on a 1% agarose.
Results: TIANGEN TRNzol Universal Reagent can extract high purity and good integrity RNA from rat liver, rice leaves, cultured cells and yeast samples, with high efficiency. The RNA quality is comparable to or slightly higher than that of supplier L and T products.

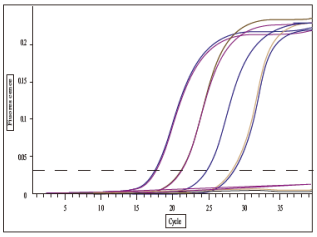
Product Name	Cat. No	ID	Packing Size
RNasimple Total RNA Kit	4992858	GDP419	50 preps

TIANamp Virus DNA/RNA Kit

——*For simultaneous purification of viral DNA or RNA from plasma, serum and cell-free body fluids using the spin column*

Star product of virus DNA/RNA extraction More than 1,000,000 sold preps per year

- High-yield, high-purity, high-quality, inhibitor-free virus DNA/RNA.
- Simple to use, highly efficiency, reproducible result.
- Safe protocol: no β-ME needed.



Material: Serum samples containing hepatitis E virus RNA (5×10^6, 5×10^5, 5×10^4, 5×10^3, 5×10^2 copies/ml)

Method: The total virus RNA was isolated using the TIANamp Virus DNA/RNA Kit. RT-qPCR was performed using FastKing One Step RT-qPCR Kit (Probe) (Cat. no.GFP314) of TIANGEN.

Results: The concentration limit of samples for RNA purification is 5×103 copies/ml where RNA can be stably purified from virus samples. The recovery efficiency is about 85%.

Product Name	Cat. No	ID	Packing Size
TIANamp Virus DNA/RNA Kit	4992285	GDP315	50 preps

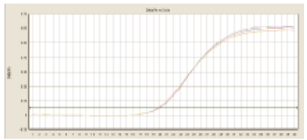
TIANamp Virus RNA Kit

——*Professional virus RNA purification kit*

Star product during the COVID-19 pandemic, Super cost effective for virus RNA extraction

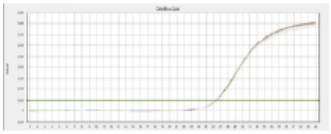
- Get high-yield, high-purity, high-quality, inhibitor-free virus RNA in 1h.
- Simple to use, high efficiency, reproducible result.
- Safe protocol: No β-ME needed.

A



Sample	Duplicate	CT value	Average
1	duplicate 1	19.71	19.70
	duplicate 2	19.68	
2	duplicate 1	19.8	19.78
	duplicate 2	19.75	
3	duplicate 1	19.49	19.53
	duplicate 2	19.56	
NTC		None	-
Average		19.67	

B



Sample	Duplicate	CT value	Average
1	duplicate 1	26.44	26.40
	duplicate 2	26.35	
2	duplicate 1	26.37	26.36
	duplicate 2	26.35	
3	duplicate 1	26.33	26.35
	duplicate 2	26.37	
NTC		None	-
Average			26.37

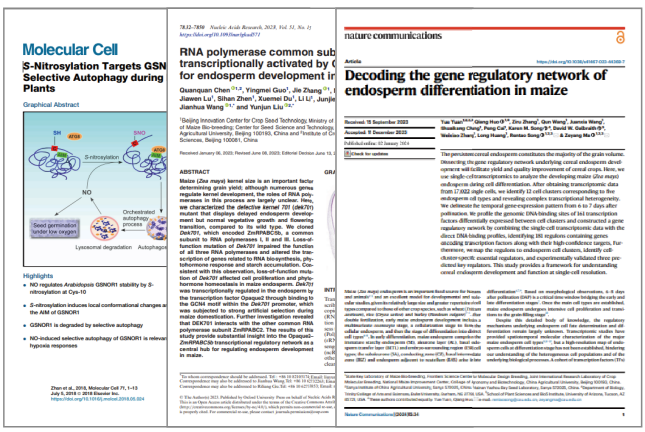
Viral genomic RNA was extracted from 200 μl of diluted AIV antigen samples using the TIANamp Virus RNA Kit
Sample: Avian Influenza standard antigens, diluted 100 times (A) or 10000 times (B).
Method: Total RNA was extracted and eluted in a volume of 50 μl, and 4 μl was used for fluorescent quantitative PCR assay. The assay results are shown above.

Product Name	Cat. No	ID	Packing Size
TIANamp Virus RNA Kit	4992286	GDP315-R	50 preps

RNAprep Pure Plant Plus Kit
(Polysaccharides & Polyphenolics-rich)

——Ideal for tricky plant RNA extraction

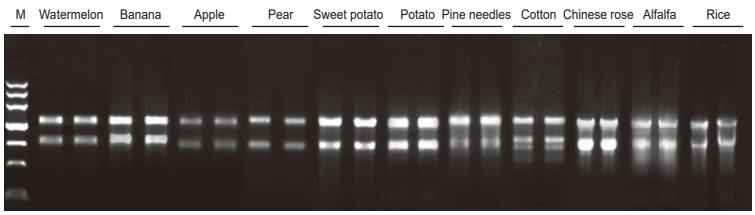
- **Reliable:** Specially designed for tricky plant samples, such as polysaccharides and polyphenolics-rich plants.
- **Efficient removal of gDNA:** High-efficient DNase I is supplied for rapid removal of gDNA on the column.
- **Easy and fast:** RNA extraction experiments can be completed in 1 hour.
- **Safe and low toxicity:** No toxic organic reagents such as phenol and chloroform are needed.



TIANGEN patented plant RNA extraction solution.
Cited by 1900+ publications
Best for polysaccharide and polyphenol-rich species

Experimental Example

Sample	Sample amount (mg)	RNA yield (μg)
Banana	100	3-5
Watermelon	100	1.5-2.4
Apple	100	1.2-2
Pear	100	1.2-2
Sweet potato	100	5.5-9
Potato	100	6-10
White pine needles	100	15-20
Cotton leaves	100	20-25
Chinese rose leaves	100	20-25
Alfalfa leaves	100	8-10
Rice leaves	100	20-25



Total RNA was extracted from 100 mg fleshes of banana, watermelon, apple and pear, tubers of sweet potato and potato, leaves of cotton, rose, alfalfa, rice and white pine needles respectively using RNAprep Pure Plant Plus Kit. 4-6 μl of 30 μl eluates were loaded per lane.
M: TIANGEN Marker III;
The electrophoresis was conducted at 6 V/cm for 30 min on a 1% agarose.
Results: RNAprep Pure Plant Plus Kit can extract high purity, high yield and good integrity total RNA from the polysaccharides & polyphenolics-rich plant samples.

Product Name	Cat. No	ID	Packing Size
RNAprep Pure Plant Plus Kit	4992239	GDP441	50 preps