TIANGEN®

Star Products Brochure

Best CHOICE Guaranteed

Who We Are

Our Mission

Our mission is to help our customers achieve outstanding achievements and breakthroughs in the fields of life science, applied detection, biological pharmacy and molecular diagnosis, thereby promote the progress of life science research and upgrade the industrial chain in China .

Key Products Line

Sample Preparation
- Collect
- Stabilize
- Disruption
- NGS library

Purification
- DNA
- RNA
- miRNA
- lncRNA
- Protein

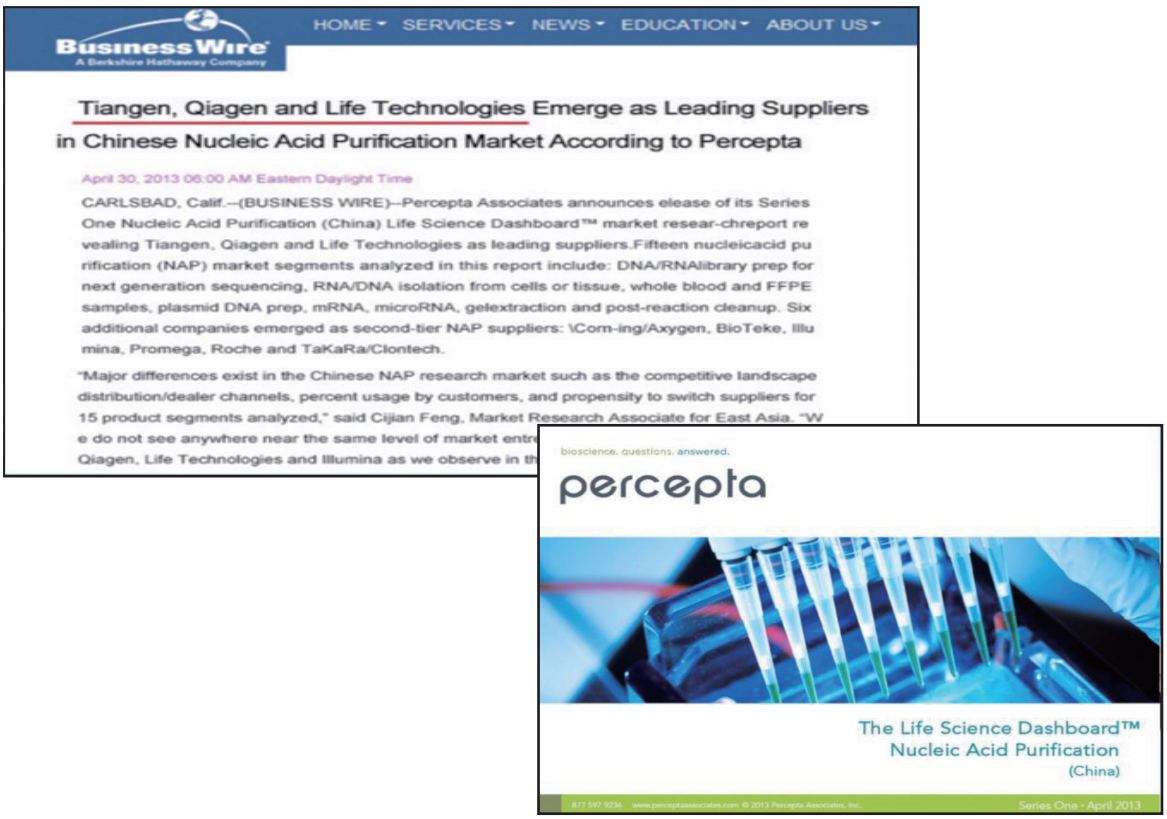
Modification & Expression
- Gene cloning
- Gene expression
- Transfection

Analyze Assay
- PCR, RT-PCR
- Real-time PCR
- Electrophoresis
- Protein assay
- Luminosity detection

Acquired ISO9001 certification by TÜV

TIANGEN

The report is summarized according to 449 scientists from China, and the survey content refers to 15 kinds of nucleic acid extraction reagents. The final results analyzed by the 15 comprehensive kinds shows that Tiangen plays a leader role in Chinese Nucleic Acid Purification market.



Business Wire: The world's largest provider of press releases and information disclosure

Percepeta Associates: Marketing survey company for global bioscience

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Host Bacteria

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  - TIANprep Mini Plasmid Kit
  - TIANpure Mini Plasmid Kit
  - TIANprep Rapid Mini Plasmid Kit HOT
- **Small-Scale-II Plasmid Kits 5-15 ml**
  - TIANprep Mini Plasmid Kit II
  - TIANpure Mini Plasmid Kit II
  - EndoFree Mini Plasmid Kit II
- **Medium-Scale Plasmid Kits 50 ml**
  - EndoFree Midi Plasmid Kit
- **Large-Scale Plasmid Kits 100-200 ml**
  - EndoFree Maxi Plasmid Kit HOT
  - EndoFree Maxi Plasmid Kit V2

Host Yeast

- TIANprep Yeast Plasmid DNA Kit

PCR Cleanup & Gel Extraction

PCR Cleanup Kit — **100 bp-20 kb fragments**

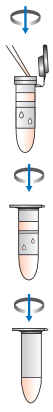
- TIANquick Maxi Purification Kit
- TIANquick Midi Purification Kit
- TIANquick Mini Purification Kit

Universal Kit — **100 bp-8kb fragments**

PCR products or enzyme digestion products

Agarose gel

→ Universal DNA Purification Kit HOT



Gel Extraction Kit — **100 bp-30 kb fragments**

- TIANgel Maxi Purification Kit
- TIANgel Madi Purification Kit
- TIANgel Mini Purification Kit

TIANprep Rapid Mini Plasmid Kit

For Fast purification of plasmid DNA of molecular biology grade

Description

TIANprep Rapid Mini Plasmid Kit is optimized from traditional alkaline lysis technology, by which high-quality plasmid DNA could be purified within 8 minutes. The new lysis buffer allows the adsorption of DNA onto silica membrane in the presence of high salt. The material that make of the silica membrane is unique, highly-efficient and highly-specified. This kit is designed for purification of up to 24 μg plasmid DNA from 1- 4 ml overnight cultures of *E.coli*.

Features

- The fastest product provide high pure plasmid DNA within 6-8 min.
- Add color indicator to control and remind every process during the experiment so that ensure a high efficiency of plasmid purification.
- Could purify more than 85% plasmid DNA from *E.coli*.

Yield

Plasmid Type	Bacterial Cells Volume	Plasmid Yield	Plasmid
Low Copy	1-4 ml	3-10 μg	pBR322, pACYC, pSC101, SuperCos, pWE15
High Copy	1-4 ml	6-24 μg	pTZ, pUC, pBS, pGM-T

Experiment procedure

Centrifuge to collect the bacteria

Add Buffer P1, P2, P5 to lysis the bacteria

Collect supernatant

Adsorb plasmid DNA

Wash with Buffer PWT

Elute with Buffer TB

Get purified plasmid DNA within 8 min

Order Information

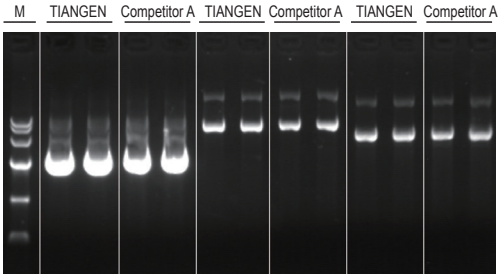
Cat. no.	Quantity
4992191	50 preps
4992192	200 preps

Contents and Storage

Contents	50 preps	200 preps
RNase A (10 mg/ml)	150 μl	600 μl
Buffer P1	15 ml	60 ml
Buffer P2	15 ml	60 ml
Buffer P5	20 ml	80 ml
Buffer PWT	15 ml	50 ml
Buffer TB	15 ml	30 ml
TIANRed	75 μl	300 μl
Spin Columns CP3	50	200
Collection Tubes 2 ml	50	200

Stored at room temperature (15-25˚C)

Experimental Example



Comparison between TIANprep Rapid Mini Plasmid Kit and supplier A (traditional 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: 3 μl
Conclusion: Agarose gel electrophoresis shows that TIANprep Rapid Mini Plasmid Kit would get the same result as the traditional plasmid purification kit within 8 min.

EndoFree Maxi Plasmid Kit

For purification of endotoxin-free transfection grade plasmid DNA

Description

EndoFree Maxi Plasmid Kit is based on silica membrane technology to extract endotoxin-free plasmid DNA. This kit provides a unique endotoxin removal process to generate high-quality plasmid DNA for use in downstream applications. It is designed to isolate plasmid DNA of the highest purity from 100 - 200 ml of bacterial culture and could yield up to 1.5 mg transfectiongrade plasmid DNA.

Features

- 200 μg -1.5 mg plasmid DNA yield in one hour with high proportion of supercoiled structures.
- Low endotoxin level and high purity of plasmid DNA are acquired by unique buffer system and Spin Columns CP6.
- Excellent transfection efficiency, suitable for transfection experiment of most cell lines.
- Wide range of applications, suitable for restriction endonuclease digestion, transformation, sequencing, cell microscopy, gene silencing and transfection experiments.

Typical DNA yields

Plasmid Type	Sample Amount	Average Yields
High-copy Plasmid	100 ml	500 μg – 1.5 mg
Low-copy Plasmid	200 ml	200 μg – 600 μg

Order Information

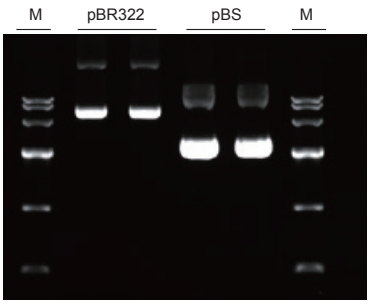
Cat. no.	Quantity
4992194	10 preps

Contents and Storage

Contents	10 preps
RNase A (100 mg/ml)	500 μl
Buffer BL	30 ml
Buffer P1	100 ml
Buffer P2	100 ml
Buffer P4	100 ml
Buffer PW	70 ml
Buffer TB	30 ml
Filtration CS1	10
Spin Columns CP6	10
Collection Tubes 50 ml	20

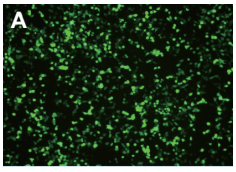
Stored at room temperature (15-25℃)

Experimental Example

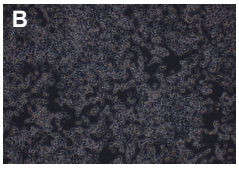


Low-copy plasmid pBR322, extracted from 200 ml bacterial culture using EndoFree Maxi Plasmid Kit, was eluted in 1 ml Buffer TB, with a concentration of 0.6 μg/μl. 2 μl plasmid was loaded per lane onto the agarose gel.
High-copy plasmid pBS, extracted from 100 ml bacterial culture using EndoFree Maxi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

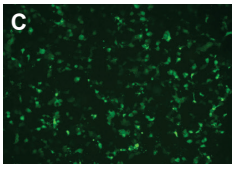
pEGFP prepatations obtained with Endofree Maxi Plasmid Kit were separately transfected into 293T and Huh7 cells. Expression of GFP were detected in 24 hours post-transfection.



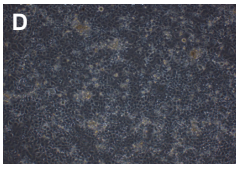
A: pEGFP transfect into 293T cells(Florescent vision)



B: pEGFP transfect into 293T cells(Normal vision)



C: pEGFP transfect into Huh7 cells(Florescent vision)



D: pEGFP transfect into Huh7 cells(Noraml vision)

Universal DNA Purification Kit

For universal purification of DNA fragments from both gels and solutions

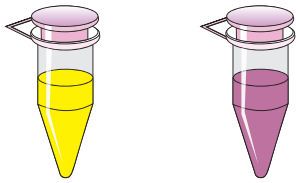
Description

Universal DNA Purification Kit provides a fast, simple and high-effective DNA purification from agarose gel or solution (PCR products, enzymatic reaction, etc). This kit is effective for any type of agarose in either TAE or TBE buffer. Buffer PC contains a pH indicator, allowing determination of the optimal pH for DNA binding. DNA fragments ranging from 100 bp to 8 kb could be effectively purified by using a specially developed spin column CB2. The purification efficiency is more than 80%. DNA fragments purified with Universal DNA Purification Kit can be used directly in downstream applications such as restriction enzyme digestion, PCR amplification, sequencing, hybridization, cloning ligation, etc.

Features

- Excellent compatibility that fulfils the needs of purification of DNA fragments from both gels and solutions.
- Stable process plus pH indicator allow the easy determination of the optimal pH for DNA binding.

pH Indicator Dye



pH Indicator Dye: Easy visual determination of optimal pH for DNA adsorption.

DNA adsorption requires pH ≤7.5, and the pH indicator in Buffer PC will appear yellow in this range. If the solution is orange or violet, add 10 μl 3M CH_3COONa (pH 5.0) until the solution becomes yellow.

Order Information

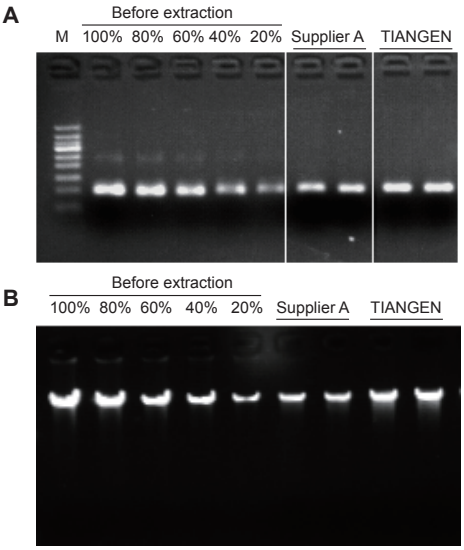
Cat. no.	Quantity
4992196	50 preps
4992197	200 preps

Contents and Storage

Contents	50 preps	200 preps
Buffer PC	25 ml	100 ml
Buffer BL	30 ml	120 ml
Buffer PW	15 ml	50 ml
Buffer EB	15 ml	30 ml
Spin Columns CB2	50	200
Collection Tubes 2 ml	50	200

Stored at room temperature (15-25˚C)

Experimental Example:



100 bp **(A)** or 8 kb **(B)** DNA fragments before extraction in different dilution percentage and after extraction with TIANGEN Universal DNA Purification Kit **(TIANGEN)**, or a silica-based DNA purification kit from Supplier A **(Supplier A)**. Recoveries of approximately 80% are obtained for both fragment sizes by Universal DNA Purification Kit.

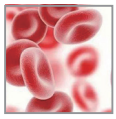
Products Guide—Genomic DNA purification

TIANamp Bacteria DNA Kit

TIANamp Yeast DNA Kit

- Plant Genomic DNA Kit HOT
- DNAquick Plant System
- DNAsecure Plant Kit
- Magnetic Plant Genomic DNA Kit

- TIANamp Genomic DNA Kit HOT
- TIANamp Marine Animals DNA Kit



- TIANamp Blood DNA Kit HOT
- TIANamp Blood Midi Kit
- TIANamp Blood Spots DNA Kit
  - RelaxGene Blood DNA System (0.1 ml-20 ml)
  - TIANamp Blood Maxi Kit
  - TIANamp virus DNA/RNA Kit HOT
  - TIANquick FFPE DNA Kit
  - Serum/Plasma Circulating DNA Kit HOT
  - TIAMamp Micro DNA Kit HOT
- TIANamp FFPE DNA Kit HOT
- TIANamp Swab DNA Kit HOT
- TIANamp Stool DNA Kit

- GMO food DNA Extraction Kit
- TIANamp Feedstuff Animal DNA Kit

TIANamp Genomic DNA Kit

For genomic DNA isolation from cells, blood and tissues

Description

TIANamp Genomic DNA Kit provides a fast and easy silica-based format for DNA purification. The kit simplifies the purification of DNA from a wide range of sample types, including animal blood (≤ 1 ml), cultured cells, and tissues commonly encountered in life science, veterinary, and genotyping applications. Most samples could be directly lysised with the provided buffer system, eliminating the need for mechanical disruption and reducing hands-on time. The kit provides purification of high-quality DNA without proteins and inhibitors. The purified DNA is suitable for PCR, restriction digestion and Southern blot.

Features

- Silica-membrane technology provides fast way to purify ready-to-use high-quality gDNA.
- High DNA yield, excellent repeatability.
- This kit significantly removes contaminants and inhibitors, facilitating downstream applications.

Applications

- PCR reaction
- Southern blot
- DNA library
- Restriction enzyme digestion

Required Reagents

Red cell lysis buffer (for blood samples more than 200 μl), Ethanol (96-100%), RNase A (Optional)

Typical DNA Yields

Starting Materials	Sample Amount	Average Yields
Mammalian Blood	100-500 μl	3-10 μg
Bird and Amphibian Blood	5 μl	5-10 μg
Cultured Cells	10^6-10^7 cells	5-30 μg
Animal Tissues	30 mg	10-30 μg
Mouse Tail	1.2 cm (tip)	10-25 μg
Rat Tail	0.6 cm (tip)	20-40 μg

Order Information

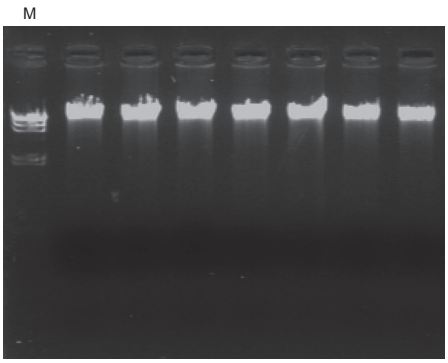
Cat. no.	Quantity
4992199	50 preps
4992254	200 preps

Contents and Storage

Contents	50 preps	200 preps
Buffer GA	15 ml	50 ml
Buffer GB	15 ml	50 ml
Buffer GD	13 ml	52 ml
Buffer PW	15 ml	50 ml
Buffer TE	15 ml	60 ml
Proteinase K (20 mg/ml)	1 ml	4×1 ml
Spin Columns CB3	50	200
Collection Tubes 2 ml	50	200

Stored at room temperature (15-25℃)

Experimental Example



Genomic DNA was isolated from long-stored blood samples using TIANamp Genomic DNA Kit. 3 μl of 100 μl eluates were loaded per lane.
M: TIANGEN λ DNA/Hind III Marker

Plant Genomic DNA Kit

For genomic DNA purification from powder or polysaccharide/ polyphenol rich plants

Description

Plant Genomic DNA Kit provides a fast, simple, and cost-effective genomic DNA extraction method for routine molecular biology laboratory applications. The kit is based on the silica membrane technology and a unique buffer to eliminate polysaccharide, polyphenol, and enzyme inhibitors. Plant genomic DNA Kit is ready-to-use to purify the genomic DNA from a wide variety of plants. Purified DNA is suitable for PCR, qPCR, restriction digestion and Southern blot.

Features

- The purified gDNA could be obtained within one hour.
- The high pure genomic DNA could be used directly in downstream experiments such as PCR amplification, restriction endonuclease digestion and Southern blotting.

Applications

- suitable for various plant tissues
- Particularly suits to polysaccharide-rich, polyphenol-rich plant tissues, and plant powders

Required Reagents

Liquid nitrogen, Ethanol (96-100%), Phenol-chloroform, RNaseA (Optional)

Typical DNA Yields

Starting Sample	Sample Amount	Yield Range	OD_{260}/OD_{280}
Wheat	100 mg	25-30 μg	1.7-1.9
Pine needles	100 mg	25-30 μg	1.7-1.9
Potato	100 mg	4-6 μg	1.7-1.9
Tomato	100 mg	10-15 μg	1.7-1.9
Strawberry	100 mg	10-15 μg	1.7-1.9
Tobacco	100 mg	20-25 μg	1.7-1.9
Rice	100 mg	10-25 μg	1.7-1.9
Soy	100 mg	20-30 μg	1.7-1.9
Corn	100 mg	20-30 μg	1.7-1.9
Cotton	100 mg	10-25 μg	1.7-1.9

DNA yield depends on sample types

Order Information

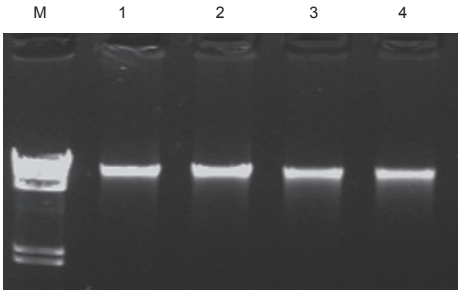
Cat. no.	Quantity
4992201	50 preps
4992202	200 preps

Contents and Storage

Contents	50 preps	200 preps
Buffer GP1	40 ml	160 ml
Buffer GP2	40 ml	160 ml
Buffer GD	13 ml	52 ml
Buffer PW	15 ml	50 ml
Buffer TE	15 ml	60 ml
Spin Columns CB3	50	200
Collection Tubes 2 ml	50	200

Stored at room temperature (15-25˚c)

Experimental Example



Genomic DNA isolated from 100 mg leaves of different plants using Plant Genomic DNA Kit. 3 μl of 100 μl eluates were loaded per lane.
M: TIANGEN λ DNA/Hind III Marker
1: Fresh tomato leaves
2: Fresh cotton leaves
3: Fresh tea leaves
4: Fresh strawberry leaves

TIANamp Virus DNA / RNA Kit

Column-based technology for virus DNA / RNA extraction from plasma, serum, and cell-free materials

Description

TIANamp virus DNA / RNA kit provides a fast, simple, and cost-effective method for virus DNA and RNA purification from plasma, serum and other cell-free samples. TIANamp virus DNA / RNA kit is based on silica membrane technology and unique buffer system. Carrier RNA in this kit improves the binding of viruses DNA/RNA to the silica membrane especially in the case of low-titer samples. No phenol/chloroform extraction, high-quality virus DNA/RNA is eluted in a small volume of RNase-Free ddH_2O. The purified DNA/RNA is ready for use in downstream applications such as PCR, RT-PCR, qRT-PCR, nest PCR, etc.

Features

- High quality virus DNA / RNA could be purified from samples of various virus including HBV, HPV, HCV and enteroviruses within one hour.
- No phenol / chloroform extraction.
- High yield, excellent repeatability and totally free from contaminants and inhibitors.

Applications

- Virus genotyping research
- Virus epidemiologic study
- Virus infectious diseases analysis and drug resistance analysis

Required Reagents

Ethanol (96-100%)

sample storage

Serum and plasma could be stored at 2-8°C for 6 h. If need long-term storage, it could be stored at -20°C or -80°C. Avoid freeze-thawing during the storage period, or it could lead to low yield. Additionally, it could produce condensation protein which may block the columns, so if the condensation protein could be visible during the process of melting. Please centrifuge at 6,800 g for 3 min, then absorb the supernatant carefully.

Order Information

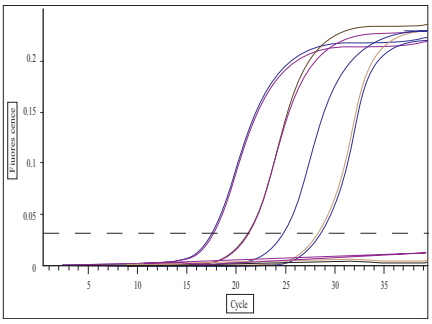
Cat. no.	Quantity
4992285	50 preps

Contents and Storage

Contents	50 preps
Buffer GB	15 ml
Buffer PW	15 ml
Buffer GD	13 ml
Proteinase K (20 mg/ml)	1 ml
Carrier RNA	310 μg
RNase-Free ddH_2O (Bottled)	15 ml
RNase-Free ddH_2O (Tubular)	1 ml
RNase-Free Spin Columns CR2 set	50
RNase-Free Centrifuge Tubes 1.5 ml	50

Stored at room temperature (15-25˚C)

Experimental Example



Viral RNA was purified from serum samples containing *Hepatitis* E virus in 5×10^6, 5×10^5, 5×10^4, and 5×10^3 copies/ml with TIANamp Virus DNA/RNA Kit. Purified performance was analyzed by qRT-PCR detection with TIANGEN Quant qRT-PCR SYBR Green I Kit.

TIANamp Micro DNA Kit

Genomic DNA purification from small volume samples including whole blood, serum/plasma, forensic materials, blood spot and swab

Description

TIANamp Micro DNA Kit simplifies isolation of low abundance DNA from small samples with a fast spin-column procedure. No phenol / chloroform extraction is required. PCR inhibitors such as impurities and proteins are significantly removed in two efficient wash steps, leaving pure DNA to be eluted in either water or the buffer provided within the kit. The purified genomic DNA is ready-to-use in sensitive downstream applications.

Features

- Rapid purification of high-quality DNA.
- No phenol / chloroform extraction is required.
- Carrier RNA enhances binding of low abundance DNA to silica membrane.
- Complete removal of contaminants and inhibitors, facilitating downstream applications.

Required Reagents

Ethanol (96-100%), RNase A (Optional)

Carrier RNA

Carrier RNA supplied in TIANamp Micro DNA kit enhances DNA binding to the silica membrane, especially when the target DNA is low abundance in the sample.

Order Information

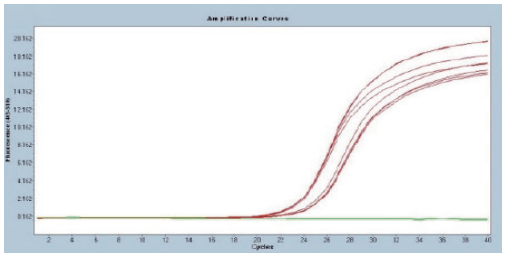
Cat. no.	Quantity
4992287	50 preps

Contents and Storage

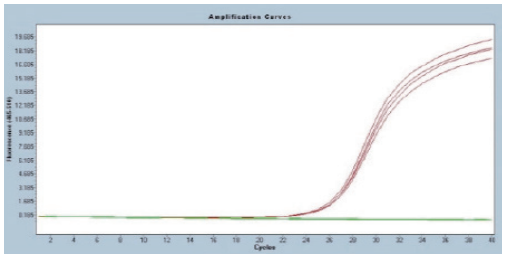
Contents	50 preps
Buffer GA	15 ml
Buffer GB	15 ml
Buffer GD	13 ml
Buffer PW	15 ml
Buffer TB	15 ml
Proteinase K	1 ml
Carrier RNA	310 μg
RNase-Free ddH_2O	1 ml
RNase-Free Spin Columns CR2	50
Collection Tubes 2 ml	50

Stored at room temperature (15-25℃)

Experimental Example



Genomic DNA was isolated from 200 μl serum/plasma using TIANamp Micro DNA Kit
4 μl of 50 μl eluates per 20 μl qRT-PCR reaction
Primer: beta golbin.



Genomic DNA was isolated from dried blood spots using TIANamp Micro DNA Kit 5 μl of 80 μl eluates per 20 μl qRT-PCR reaction Primer: HS4.

TIANamp Swab DNA Kit

Silica membrane based high-purity DNA purification from swab samples

Description

TIANamp Swab DNA Kit is based on silica membrane technology and unique buffer system for effective genomic DNA purification. The spin column made of new type silica-gel membrane in swab DNA kit could be easily bounded by DNA specifically. Genomic DNA from swab samples could be purified in 90 minutes. Purified DNA is high quality and serves as an excellent template for agarose gel analysis, qRT-PCR analysis and genotyping.

Features

- Silica membrane technology ensures simple and rapid purification of high-quality DNA from swab.
- The purified DNA from swab is ready-to-use in downstream applications.
- 0.5 - 3.5 μg genomic DNA could be isolated from one swab sample.

Required Reagents

Ethanol (96-100%), RNase A (Optional)

Order Information

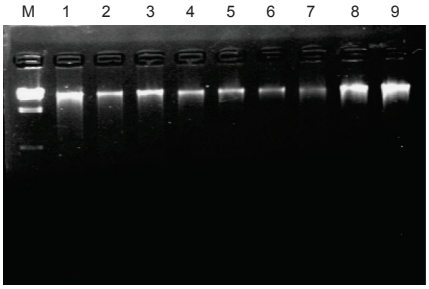
Cat. no.	Quantity
4992257	50 preps
4992258	200 preps

Contents and Storage

Contents	50 preps	200 preps
Buffer GA	30 ml	2 × 50 ml
Buffer GB	30 ml	2 × 50 ml
Buffer GD	13 ml	52 ml
Buffer PW	15 ml	50 ml
Buffer TB	15 ml	30 ml
Proteinase K	1 ml	4 × 1 ml
RNase-Free Spin Columns CR2	50	200
Centrifuge Tubes 1.5 ml	50	200
Collection Tubes 2 ml	50	200

Stored at room temperature (15-25˚C)

Experimental Example



Genomic DNA was purified from different swab samples using TIANamp Swab DNA Kit. 3 μl of 50 μl eluates (in TB buffer) were loaded per lane.
M: TIANGEN λ DNA/ HindIII.

TIANquick FFPE DNA Kit

Quick purification of DNA from formalin-fixed, paraffin-embedded tissues without xylene treatment

Description

TIANquick FFPE DNA Kit provides special lysis condition and unique deparaffinization method to extract DNA from formalin-fixed and paraffin-embedding (FFPE) samples. This kit significantly reverses the cross-linking and minimizes the impairment of DNA caused by FFPE procedure. It also incorporates specific absorbent columns which completely avoid using of toxic and hazardous organic reagents such as xylene and overnight digestion with proteinase K. The purified DNA ideally is suitable for diagnosis and academic research.

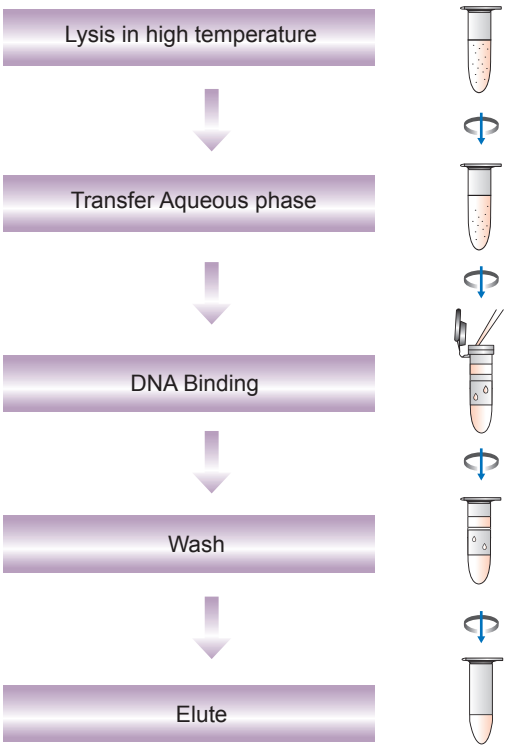
Features

- The whole procedure could be finished within one hour.
- Neither xylene nor other hazardous solvents is needed.
- High-purity DNA could be isolated without proteinase K overnight digestion .

Required Reagents

Ethanol (96-100%), RNase A (Optional)

Procedure



Order Information

Cat. no.	Quantity
4992296	50 preps

Contents and Storage

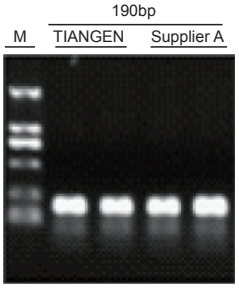
Contents	50 preps
Buffer GL	30 ml
Buffer GP	3 ml
Buffer GD	13 ml
Buffer PW	15 ml
Buffer TE	15 ml
RNase-Free Spin Columns CR2	50
Collection Tubes 2 ml	50

Stored at room temperature (15-25℃)

Experimental Example

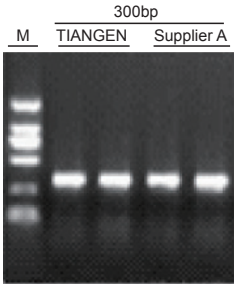
Genomic DNA was extracted from mouse's liver FFPE samples (5 pieces, 10 μm/piece) using TIANquick FFPE DNA Kit **(TIANGEN)** and similar product from Supplier A **(Supplier A)**. 5 μl of 20 μl PCR products were loaded per lane.

A



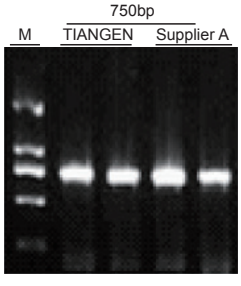
PCR amplification of 190 bp fragment

B



PCR amplification of 300 bp fragment

C



PCR amplification of 750 bp fragment.
M: TIANGEN DNA marker D2000.

TIANamp Soil DNA Kit

Isolate microbial genomic DNA from environmental samples

Description

TIANamp Soil DNA Kit uses a unique buffer system, by which the humic acid in soil sample could be completely removed. Glass beads are also applied in this kit to process the lysis of components of soil sample in order to guarantee the integrity of gDNA.

Features

- Wide application: Isolate pure DNA from all soil samples and difficult sample types, 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 within 30 min.
- Inhibitor Removal: Eliminates humic substances and PCR inhibitors for DNA, gDNA isolated by this kit has high purity and is good for downstream experiments.

Experiment procedure

Add Buffer SA, Buffer SC and Glass beads for Sample processing

Collect supernatant

Add Buffer HA, HB, GF to sample lysis

gDNA binding

Adsorb gDNA

Add Buffer PWS for gDNA washing

Add buffer TE for gDNA eluting

Order Information

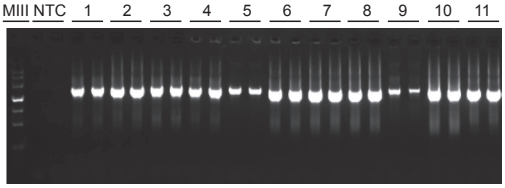
Cat. no.	Quantity
4992288	50 preps

Contents and Storage

Contents	50 preps
Buffer SA	45 ml
Buffer SC	5 ml
Buffer HA	15 ml
Buffer HB	15 ml
Buffer GF	70 ml
Buffer PWS	15 ml
1 mm Grinding Beads	15 g
Buffer TE	15 ml
Spin Columns CB3	50
Collection Tubes 2 ml	50

Stored at room temperature (15-25℃)

Experimental Example



Genomic DNA purification from different resource soil samples using TIANamp soil DNA kit tested by PCR amplification.6 μl of 20 μl PCR Products was loaded per lane.
1. Black soil;
2. Laterite from Guangdong;
3. Loess;
4. Laterite from Guangxi;
5. Dust;
6. Forest soil;
7. Potting soil;
8. Flower bed soil;
9. Laterite from Zhejiang;
10. Silt;
11. Farmland soil;
NTC: negtive
M: TIANGEN marker III

Serum/Plasma Circulating DNA Kit

For isolation of genomic DNA from plasma and serum

Description

Serum/Plasma Circulating DNA Kit is based on silica membrane technology and provides special buffer system. Genomic DNA binds to the silica-membrane in the presence of high salt, while the contaminants pass through the column. After the membrane is thoroughly washed to remove any remaining contaminants, the pure DNA is eluted from the membrane with low salt buffer.

Features

- **High efficiency and safe:**
  No phenol/chloroform extraction. Carrier RNA enhances binding of low abundance DNA to spin column membrane.
- **Convenient operation:**
  The whole experimental procedure could be finished within one hour.
- **High purity:**
  With the application of spin column method, gDNA isolated by this kit has high purity and is good for downstream experiments.

Applications

- PCR reaction
- Southern blot
- DNA library
- Restriction enzyme digestion

Order Information

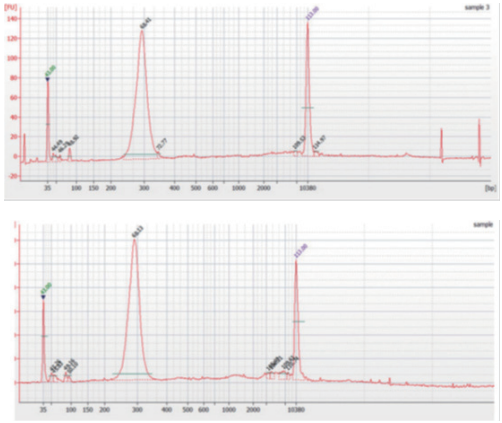
Cat. no.	Quantity
4992289	50 preps

Contents and Storage

Contents	50 preps
Buffer GA	15 ml
Buffer GB	15 ml
Buffer GD	13 ml
Buffer PW	15 ml
Buffer TB	15 ml
Proteinase K	1 ml
Carrier RNA	310 μg
RNase-Free ddH_2O	1 ml
RNase-Free Spin Columns CR2	50
Collection Tubes 2 ml	50

Stored at room temperature (15-25℃)

Experimental Example



DNA purified from 400 μl plasma samples using Serum/ Plasma Circulating DNA Kit . These are results of 2100 analysis after library.

TIANamp Blood DNA Kit

For isolation of genomic DNA from 0.1-1 ml whole blood

Description

TIANamp Blood DNA Kit uses spin column which could specifically bind to DNA, and provides unique buffer system for effective blood gDNA extraction. The spin column made of new type silica membrane which could bind DNA efficiently and specifically. It could maximally remove contaminant proteins and other organic compounds in cells .Genomic DNA isolated with this product is highly pure, stable and integrated.

Features

- **Wide application:** The kit could be used to extract gDNA from anticoagulant blood (EDTA, heparin etc.), buffy coat and blood clots directly.
- **High quality:** With the unique lysis buffer system, the purified DNA with high concentration, purity and good integrality could satisfy the demands of chip hybridization and high-throughput sequencing.
- **Rapid and non-toxic:** The kit uses silica membrane adsorption technology and does not need phenol and chloroform. The whole extraction process could be completed within one hour.

Applications

- PCR reaction
- Southern blot
- DNA library

Order Information

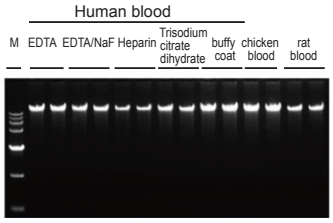
Cat. no.	Quantity
4992207	50 preps
4992208	200 preps

Contents and Storage

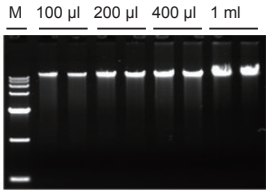
Contents	50 preps	200 preps
Buffer CL	60 ml	250 ml
Buffer GS	15 ml	50 ml
Buffer GB	15 ml	50 ml
Buffer BD	20 ml	80 ml
Buffer GDB	30 ml	120 ml
Buffer PWB	15 ml	50 ml
Buffer TB	15 ml	60 ml
Proteinase K	1 ml	4 × 1 ml
Spin Columns CG2	50	200
Collection Tubes 2 ml	50	200
Centrifuge Tubes 1.5 ml	50	200

Stored at room temperature (15-25℃)

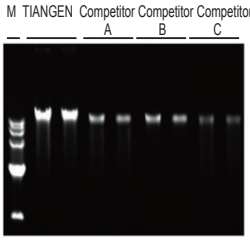
Experimental Example



Genomic DNA extracted from blood samples using TIANamp Blood DNA Kit (4992207/4992208);
200 µl human blood with EDTA, EDTA/NaF, Heparin and Trisodium citrate dihydrate, buffy coat from 2 ml blood, 10µl chicken blood and 200µl rat blood;
4 µl of 100 µl eluates were loaded per lane;
M: TIANGEN Maker D15000



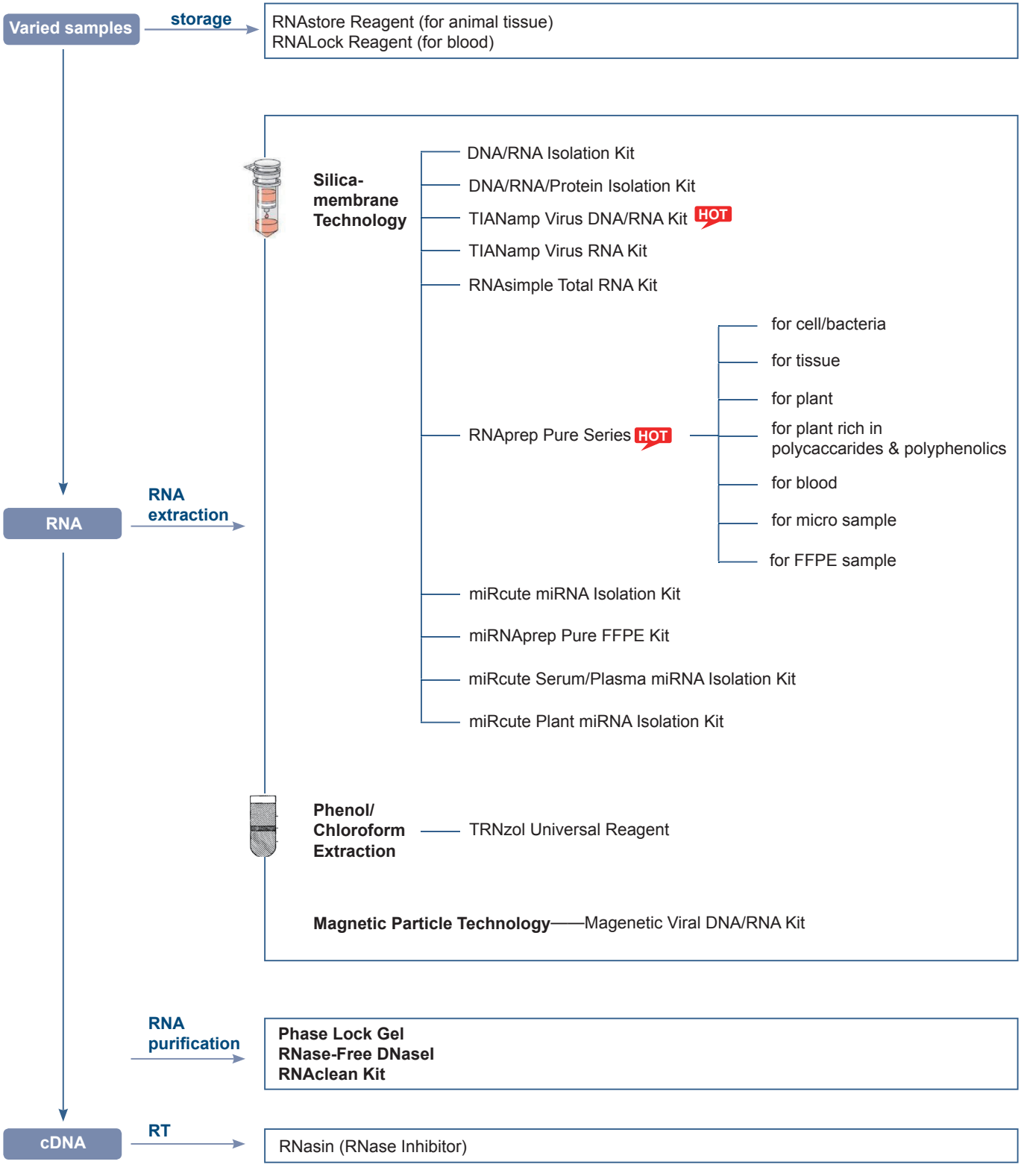
Genomic DNA extracted from blood samples of different volume using TIANamp Blood DNA Kit (4992207/4992208);
3 µl of 100 µl eluates were loaded per lane;
M: TIANGEN Maker D15000



Sample ID	Conc.	260/280	260/230
TIANGEN	42.7	1.8	1.84
	41.2	1.8	1.86
CompetitorA	18	1.9	1.93
	17.2	1.93	1.58
CompetitorB	29.1	1.87	1.48
	27.2	1.94	1.92
CompetitorC	26.6	2.01	2.16
	25.5	1.93	2.16

Genomic DNA extracted from 200 µl human blood with EDTA using TIANamp Blood DNA Kit (4992207/4992208) and other copetitors;
M: TIANGEN Maker D15000

Products Guide—RNA Extraction



RNAprep Pure Cell / Bacteria Kit

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

Description

RNAprep Pure Cell / Bacteria Kit provides a fast, simple, and cost-effective method for purification of total RNA from cultured cells and bacteria samples by using effective spin column and unique buffer system. The kit includes RNase-Free Spin Column CR3 for purifying high-quality RNA by using silica-membrane technology. High-quality total RNA could be obtained in 30-40 minutes with high-purity and is free from protein and genomic DNA contamination.

Features

- Optimized buffers and protocols for cultured cells and bacteria samples make the process simple and convenient.
- Unique DNase I minimizes genomic DNA contamination.
- Unique RNase-Free Filtration Columns CS eliminates other contaminations.
- High-purity ready-to-use RNA, suitable for sensitive downstream applications.
- No phenol / chloroform extraction, no LiCl and ethanol precipitation, no CsCl gradients centrifugation.

Required Reagents

β-mercaptoethanol, Ethanol (96-100%)

Applications

- RT-PCR
- Northern blot, Dot blot
- qRT-PCR
- Chip Analysis
- In vitro translation, poly A screening

Order Information

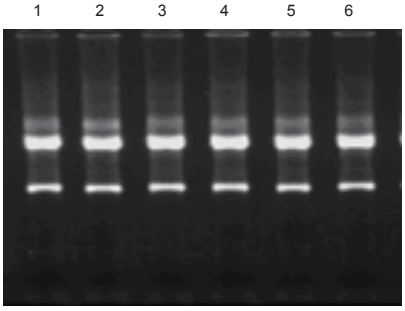
Cat. no.	Quantity
4992185	50 preps

Contents and Storage

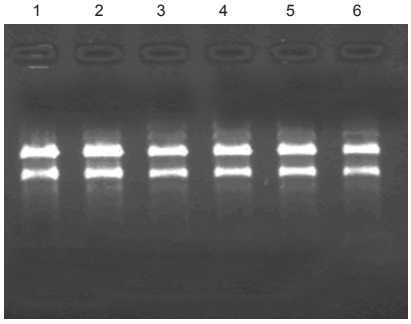
Contents	50 preps
Buffer RL	30 ml
Buffer RW1	40 ml
Buffer RW	12 ml
DNase I (1500 U)	1
Buffer RDD	4 ml
RNase-Free ddH_2O (Tubular)	1 ml
RNase-Free ddH_2O (Bottled)	15 ml
RNase-Free Spin Columns CR3 set	50
RNase-Free Filtration Columns CS set	50
RNase-Free Centrifuge Tubes 1.5 ml	50

DNase I, Buffer RDD and RNase-Free ddH_2O (1 ml) should be stored at 2-8℃. Other reagents could be stored at room temperature (15-25℃).

Experimental Example



Total RNA was purified from human Jurkat cells (1×10^6) using RNAprep Pure Kit (For Cell / Bacteria). 3 μl of 50 μl eluates was loaded per lane.



Total RNA was purified from TOP10 *E.coli* (1×10^8) using RNAprep Pure Kit (For Cell / Bacteria). 3 μl of 50 μl eluates was loaded per lane.

RNAprep Pure Tissue Kit

For purification of up to 100 μg total RNA from animal tissues

Description

RNAprep Pure Tissue Kit provides a fast, simple, and cost-effective method for purification of total RNA from animal tissues by using effective spin column and unique buffer system. The kit includes RNase-Free spin columns CR3 for purifying high-quality RNA by using silica-membrane technology. High-quality total RNA could be obtained in 40-50 minutes with high-purity and is free from protein and genomic DNA contamination.

Features

- Optimized buffers for animal tissues make the process simple and convenient.
- Unique DNase I minimizes genomic DNA contamination.
- Higher-purity and ready-to-use RNA is, suitable for sensitive downstream applications.
- No phenol / chloroform extraction, no LiCl and ethanol precipitation, no CsCl gradients centrifugation.

Required Reagents

β-mercaptoethanol, Ethanol (96-100%)

Applications

- RT-PCR
- Northern blot, Dot blot
- qRT-PCR
- Chip Analysis
- In vitro translation, poly A screening

Order Information

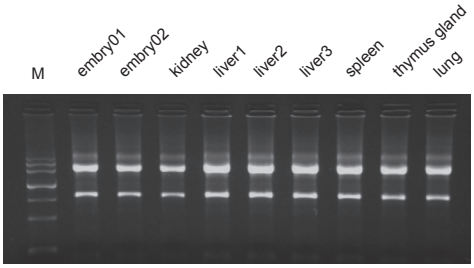
Cat. no.	Quantity
4992186	50 preps

Contents and Storage

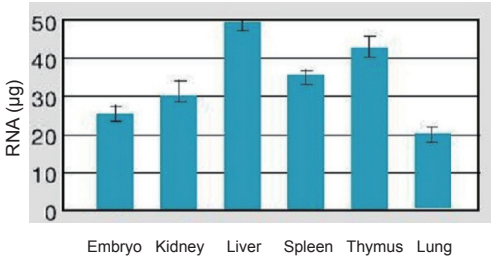
Contents	50 preps
Buffer RL	30 ml
Buffer RW1	40 ml
Buffer RW	12 ml
Proteinase K	500 μl
Grinding Pestles	10
DNase I (1500 U)	1
Buffer RDD	4 ml
RNase-Free ddH_2O (Tubular)	1 ml
RNase-Free ddH_2O (Bottled)	40 ml
RNase-Free Spin Columns CR3 set	50
RNase-Free Centrifuge Tubes 1.5 ml	50

DNase I, Buffer RDD and RNase-Free ddH_2O (1 ml) should be stored at 2-8℃. Other reagents could be stored at room temperature.

Experimental Example



Total RNA purified from different tissue samples of rat using RNAprep pure Tissue Kit.
Sample amount: 20 mg embryo (13 days), 15 mg kidney, 10 mg liver, 15 mg spleen, 10 mg thymus, 20 mg lung; 3 μl of 100 μl eluates were loaded per lane.
M: TIANGEN Marker III



Typical RNA purification yields of different rat tissue samples using RNAprep Pure Tissue Kit.

RNAprep Pure Blood Kit

For purification of total RNA from whole blood

Description

RNAprep Pure Blood Kit provides a fast, simple, and cost-effective method for purification of total RNA from blood samples by using effective spin column and unique buffer system. The simplicity of the procedure allows rapid parallel processing of multi-sample for total RNA purification. High-quality total RNA could be obtained within 30-40 minutes with highest purity and is free from protein and other contamination.

Features

- Optimized buffers and protocols for blood samples make the process simple and convenient.
- Unique DNase I minimizes genomic DNA contamination.
- Unique RNase-Free Filtration Columns CS provides RNA free from other contaminations.
- High-purity ready-to-use RNA, suitable for sensitive downstream applications.
- No phenol / chloroform extraction, no LiCl and ethanol precipitation, no CsCl gradients centrifugation.

Required Reagents

β-mercaptoethanol, Ethanol (96-100%)

Applications

- RT-PCR
- Northern blot, Dot blot
- qRT-PCR
- Chip Analysis
- In vitro translation, poly A screening

Ordering Information

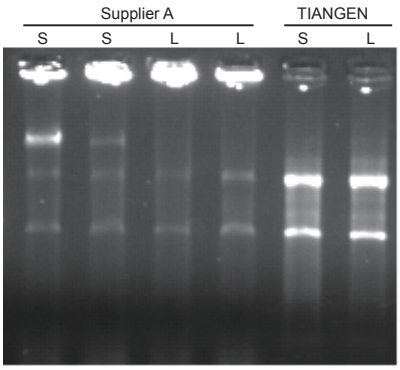
Cat. no.	Quantity
4992188	50 preps

Contents and Storage

Contents	50 preps
10 x Red Cell Lysis Buffer	60 ml
Buffer RL	30 ml
Buffer RW1	40 ml
Buffer RW	12 ml
DNase I (1500 U)	1
Buffer RDD	4 ml
RNase-Free ddH_2O (Tubular)	1 ml
RNase-Free ddH_2O (Bottled)	15 ml
RNase-Free Spin Columns CR2 set	50
RNase-Free Filtration Columns CS set	50
RNase-Free Centrifuge Tubes 1.5 ml	50

DNase I, Buffer RDD and RNase-Free ddH_2O (1 ml) should be stored at 2-8℃. Other reagents could be stored at room temperature (15-25℃).

Experimental Example



Total RNA was isolated from the blood of object S **(S)** or object L **(L)** with TIANGEN RNAprep Pure Blood Kit, or RNA isolation product from Supplier A **(Supplier A)**. 500 ng of isolated RNA was loaded per lane.

TIANamp Virus RNA Kit

Professional virus RNA purification kit

Description

TIANamp Virus RNA Kit provides a fast, simple, and cost-effective virus RNA purification method for virus RNA purification from whole blood, plasma, serum and other cell-free materials by using effective spin column and unique buffer system. This kit is supplied with carrier RNA to enhance binding of nucleic acid to the spin column membrane. The obtained RNA is free from protein and nuclease contamination and can be used directly in hybridization, RT-PCR, and one step qPCR experiments. TIANamp Virus RNA Kit is suitable for various kinds of virus RNA purification and the high-quality RNA can be obtained within one hour.

Features

- High-quality virus RNA can be obtained within one hour.
- No phenol / chloroform extraction and ethanol precipitation.
- High RNA yield and excellent repeatability.
- Complete removal of contaminants and inhibitors, facilitating downstream applications.

Required Reagents

Ethanol (96-100%), DNase I (optional)

Applications

- Virus genotyping research
- Virus epidemiologic study
- Virus infectious diseases analysis

Ordering Information

Cat. no.	Quantity
4992286	50 preps

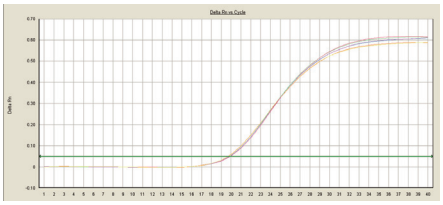
Contents and Storage

Contents	50 preps
Buffer RL	30 ml
Buffer GD	13 ml
Buffer RW	12 ml
Carrier RNA	310 μg
RNase-Free ddH_2O (Tubular)	1 ml
RNase-Free ddH_2O (Bottled)	15 ml
RNase-Free Spin Columns CR2 set	50
RNase-Free Centrifuge Tubes 1.5 ml	50

Store at room temperature (15-25℃)

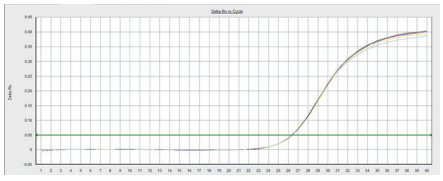
Experimental Example

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

Total RNA was purified from 200 μl of Avian influenza virus standard antigen that was diluted 100 times (**A**), or 10,000 times (**B**) with TIANamp Virus RNA Kit. 4 μl of 50 μl eluates was used as template in real-time PCR detection. qRT-PCR was in triplicate for each sample.

RNAprep Pure FFPE Kit

For purification of RNA from formalin-fixed, paraffin-embedded tissues

Description

The RNAprep Pure FFPE Kit is specially designed for purifying total RNA from formalin-fixed, paraffin-embedded tissue sections. Special lysis and incubation conditions reverse formaldehye modification of RNA. In addition, the lysis buffer efficiently releases RNA from tissue sections while avoiding further RNA degradation. The kit also uses DNase I and Buffer RDD for optimized removal of genomic DNA contamination. The purified RNA can be used in various of downstream applications.

Features

- Silica membrane based technology to ensure high-purity of RNA.
- Fast and simple process compared with conventional methods.
- Suitable for downstream RT-PCR or qRT-PCR applications.

Required Reagents

Xylene, Ethanol (96-100%)

Order Information

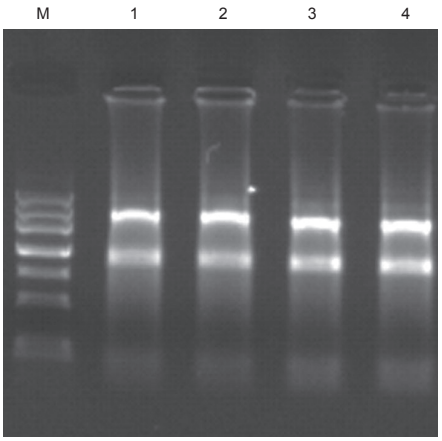
Cat. no.	Quantity
4992303	50 preps

Contents and Storage

Contents	50 preps
Buffer RF	12 ml
Buffer RB	12 ml
Buffer RW1	40 ml
Buffer RW	12 ml
Proteinase K	500 µl
RNase-Free ddH_2O (Bottled)	40 ml
RNase-Free Spin Columns CR3 set	50
DNase I (1500 U)	1
Buffer RDD	4 ml
RNase-Free ddH_2O (Tubular)	1 ml
RNase-Free Centrifuge Tubes 1.5 ml	50

DNase I, Buffer RDD and RNase-Free ddH_2O (1 ml) should be stored at 2-8˚C. Other reagents can be stored at room temperature (15-25˚C).

Experimental Example



RNA extracted from paraffin-embedded rat liver sample using RNAprep Pure FFPE Kit
Sample amount: 15 mg rat liver; elution volume: 50 µl; loading volume: 8 µl
M: TIANGEN Marker III

RNAprep Pure Plant Kit

For purification of total RNA from plants and fungi

Description

RNAprep Pure Plant Kit provides a fast, simple, and cost-effective method for purification of total RNA from plant samples by using effective spin column and unique buffer system. The kit includes RNase-Free Filtration Column CS for homogenizing and filtering viscous plant or fungal lysates, and spin column CR3 for purifying high-quality RNA by using silica-membrane technology. High-quality total RNA could be obtained in 30-40 minutes. The whole process is simple, easy to operate, low toxic, and safe. The obtained RNA has high-purity and is free from protein contamination. If sample is rich in secondary metabolism, buffer HL could be provided by TIANGEN to achieve maximum purification efficiency.

Features

- Optimized buffers for plant samples make the process more convenience.
- Unique DNase I minimizes genomic DNA contamination.
- Unique filtration column CS eliminates other contaminations.
- High-purity ready-to-use RNA, is suitable for sensitive downstream applications.
- No phenol / chloroform extraction no LiCl and ethanol precipitation, and no CsCl gradients centrifugation.

Required Reagents

β-mercaptoethanol, Ethanol (96-100%), Buffer HL (for samples rich in secondary metabolism)

Applications

- RT-PCR; qRT-PCR
- Northern blot, Dot blot
- Chip Analysis
- In vitro Translation, Poly A Screening, molecular cloning

Typical RNA Yields

Starting Sample	Sample Amount	Yield Range
Yeast	7×10^7 cells	30-100 μg
Tobacco Leaves	100 mg	73 μg
Arabidopsis thaliana	100 mg	35 μg
Corn Leaves	100 mg	25 μg
Tomato Leaves	100 mg	65 μg

Order Information

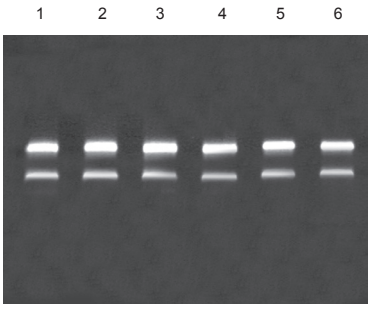
Cat. no.	Quantity
4992187	50 preps

Contents and Storage

Contents	50 preps
Buffer RL	30 ml
Buffer RW1	40 ml
Buffer RW	12 ml
DNase I (1500 U)	1
Buffer RDD	4 ml
RNase-Free ddH_2O (Tubular)	1 ml
RNase-Free ddH_2O (Bottled)	15 ml
RNase-Free Spin Columns CR3 set	50
RNase-Free Filtration Columns CS set	50
RNase-Free Centrifuge Tubes 1.5 ml	50

DNase I, Buffer RDD and RNase-Free ddH_2O (Tubular) should be stored at 2-8℃. Other reagents could be stored at room temperature (15-25℃).

Experimental Example



Total RNA was isolated from 80 mg Atenia cordifolia leaves using RNAprep Pure Plant Kit. 3 μl of 100 μl eluates were loaded per lane.

RNAprep Pure Plant Plus Kit

For purification of total RNA from polysaccharides & Polyphenolics-rich plants

Description

RNAprep Pure Plant Plus Kit (Polysaccharides & Polyphenolics-rich) provides a fast, simple, and cost-effective method for purification of total RNA from plant cells and tissues, especially from plant tissues rich in polysaccharides, polyphenolics and starch. The purified RNA is ready for use in downstream applications such as RT-PCR and qRT-PCR, microarray, Northern blot, Dot blot, polyA screening, in vitro, and molecular cloning.

Features

- Focus on total RNA purification from polysaccharides & polyphenolics-rich samples, providing a more optimized procedure to get highly pure RNA.
- With DNase I included in the kit, gDNA could be cleaned up thoroughly.
- Get high pure RNA within one hour.
- No phenol chloroform extraction, keep RNA purification experiment safety and non-toxic.

Required Reagents

β-mercaptoethanol

Application

- RT-PCR and qRT-PCR.
- Microarray
- Northern blot, Dot blot
- Poly A screening
- In vitro translation
- Molecular cloning

Yield

Sample Type	Sample Amount (mg)	Yield Range (μg)
Banana (sarcocarp)	100	3-5
Watermelon (sarcocarp)	100	1.5-2.4
Apple (sarcocarp)	100	1.2-2
Pear (sarcocarp)	100	1.2-2
Sweet Potato (lump)	100	5.5-9
Potato (lump)	100	6-10
Pine Needle	100	15-20
Cotton (leaf)	100	20-25
Rose (leaf)	100	20-25
Loquat (leaf)	100	8-10
Wheat (leaf)	100	20-25

Ordering Information

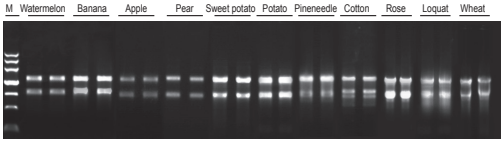
Cat. no.	Quantity
4992189	50 preps

Contents and Storage

Contents	50 preps
Buffer SL	30 ml
Buffer RW1	40 ml
Buffer RW	12 ml
DNase I (1500 U)	1
Buffer RDD	4 ml
Rnase-Free ddH_2O (Tubular)	1 ml
RNase-Free ddH_2O (Bottled)	15 ml
RNase-Free Spin Columns CR3 set	50
RNase-Free Filtration Columns CS set	50
RNase-Free Centrifuge Tubes 1.5 ml	50

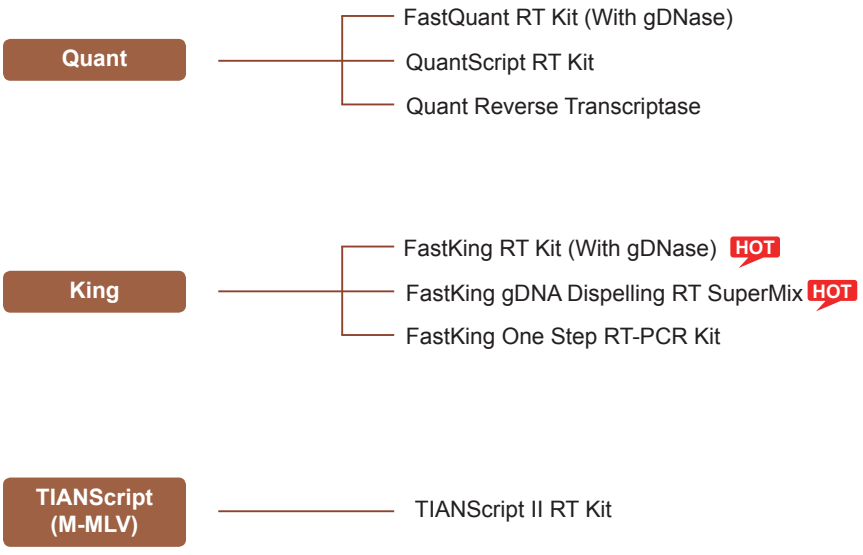
RNase-Free DNase I, Buffer RDD & RNase-Free ddH_2O (1 ml) should be stored at 2-8°C; Buffer SL/ β-mercaptoethanol mix could be stored at 4°C for 1 month; others stored at room temperature (15-25°C).

Experimental Example

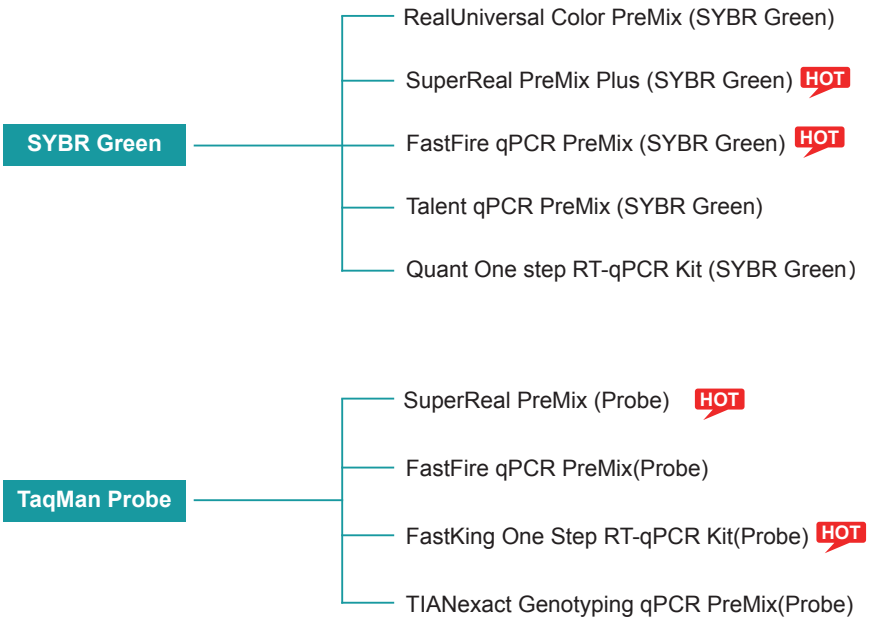


Total RNA purification from watermelon, banana, apple, pear, sweet potato, potato, pine needle, cotton, rose, loquat and wheat with RNAprep Pure Plant Plus Kit, detecting with 1% agarose gel electrophoresis.
Elution volume: 30 μl
Detection volume: 6 μl
M: TIANGEN Marker III
Conclusion: Total RNA purified by RNAprep Pure Plant Plus Kit from the polysaccharides & polyphenolics-rich samples has a high integrality and yield without gDNA residece.

TIANGEN RT Products



TIANGEN qPCR products



FastKing RT Kit (With gDNase)

21 min high-efficient reverse transcription with gDNA cleaning up

Description

FastKing RT Kit (With gDNase) is a transcription system with high efficient, stable and genomic DNA cleaning up. This product contains gDNase which could remove genomic DNA by incubation at 42℃, 3 min to protect the total RNA from genomic DNA interference. King RT Enzyme provides a high-efficient reverse transcription in 42℃, 15 min. With a special modified hydrophobic motif, King RTase gets a significant affinity for RNA and facilitates transcription through RNA templates, and enables read-through templates with high GC or complex secondary structures.

Features

- High RT efficiency: RT efficiency morn than 95%.
- Simple and easy to operate: Simple reaction to set up, first strand cDNA could be synthesised within 21 minutes.
- Read complex template: Enables read-through templates with high GC content or complex secondary structures.
- High sample universality: Capable for high impurity content RNA templates and RNA templates with different species.
- Excellent capability: Could be co-used with qPCR product with high sensitivity and stability.

Application

cDNA reverse transcribed by this kit could be used for PCR, qPCR, cDNA library construction, SAGE, etc.

Storage condition

FastKing RT Kit could be stored at -20℃ for up to 12 months.

Order Information

Cat. no.	Quantity
4992223	25 rxn
4992224	100 rxn
4992250	1000 rxn

Contents and Storage

Contents	25 rxn	100 rxn	1000 rxn
5×gDNA Buffer	50 μl	200 μl	10×200 μl
FQ-RT Primer Mix	50 μl	200 μl	10×200 μl
FastKing RT Enzyme Mix	25 μl	100 μl	10×100 μl
10×King RT Buffer	50 μl	200 μl	10×200 μl
RNase-Free ddH_2O	1 ml	2×1 ml	10×2×1 ml

FastKing RT Kit could be stored at -20℃ for up to 12 months.

Experimental Example

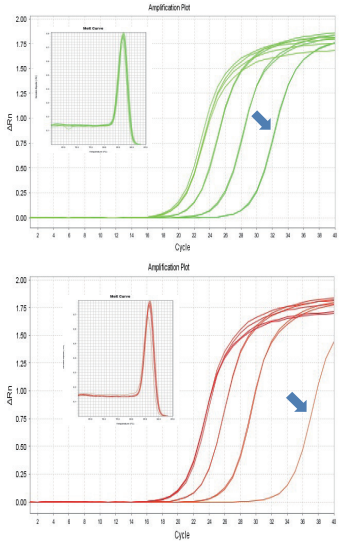


Fig.1 Use TIANGEN FastKing RT Kit (above) and similar competitor A(below) to reverse transcribe mouse RNA. Use TIANGEN SuperReal PreMix Plus (SYBR Green) (4992214/4992215/4992248) to detect gene MM5, and the amplification curves and melting curves are showed. The results show that FastKing RT Kit get greater gradient and Ct value, especially for the low abundance template (1 ng, blue arrow).

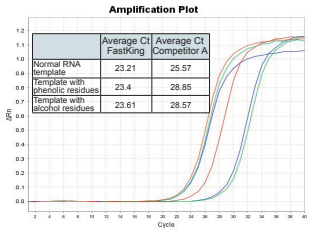


Fig 2. Use TIANGEN FastKing RT Kit and similar competitor A to reverse transcribe normal RNA samples (red), RNA samples with phenolic residues (green) and RNA samples with alcohol residues (blue). Use TIANGEN SuperReal PreMix Plus (SYBR Green) (4992214/4992215/4992248) to detect gene RNC, and the amplification curves and average Ct values are showed. The results show that the quantitative Ct value of FastKing RT Kit is lower and more stable than competitor, exibiting its excellent resistance to different impurity.

FastKing gDNA Dispelling RT SuperMix

18 min high-efficient reverse transcription and gDNA cleaning up in one step

Description

FastKing gDNA Dispelling RT SuperMix provides a rapid, stable and efficient method of cDNA synthesis which is perfect for two-step Real Time PCR. 5×FastKing-RT SuperMix contains all required reagents of RT-PCR (include FastKing RT Enzyme, RNase Inhibitor, Random primers, Oligo dT Primer, dNTP Mixture and Reaction Buffer), and a special heat-sensitive DNase to efficiently remove genomic DNA without interfering with cDNA. Reaction could be started immediately right after the addition of template RNA and RNase-Free ddH_2O.

FastKing RT Enzyme in the SuperMix provides a high-efficient reverse transcription in 42℃, 15 min. With a special modified hydrophobic motif, FastKing RTase gets a significant affinity for RNA and facilitates the efficiency and speed of the reaction, and enables read-through of templates with high GC content or complex secondary structures

Features

- Simple reaction setup: This product is premix-format, the reaction could be started right after the addition of RNA template and ddH_2O.
- High performance reverse transcription: 95% of RNA template could be reverse transcribed to cDNA.
- Short reaction time: gDNA could be removed and cDNA be synthesized together in one step within 15 min at 42°C.
- Suitable for complex template: This product could be used for the reverse transcription of RNA template which has complex secondary structure and high GC content.
- High compatibility for downstream analysis: This product could be co-used with many type of qPCR product for analysis with high sensitivity and stability.

Application

cDNA reverse transcribed by FastKing gDNA Dispelling RT SuperMix could be used for PCR, qPCR, cDNA library construction, SAGE, etc.

Storage condition

FastKing gDNA Dispelling RT SuperMix could be stored at -20℃ for up to 12 months.

Order Information

Cat. no.	Quantity
4992226	25 rxn
4992227	100 rxn
4992251	1000 rxn

Contents and Storage

Contents	25 rxn	100 rxn	1000 rxn
5×FastKing-RT SuperMix	100 µl	400 µl	10×400 µl
RNase-Free ddH_2O	1 ml	2×1 ml	10×2×1 ml

Experimental Example

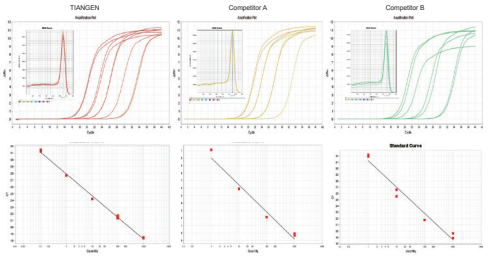


Fig.1 Use TIANGEN FastKing gDNA Dispelling RT SuperMix and similar competitor A and B to reverse transcribe mouse RNA. Use TIANGEN SuperReal PreMix Plus (SYBR Green) (4992214/4992215/4992248) to detect gene RN5, and the amplification curves and melting curves are displayed. The results show that the reverse transcription of TIANGEN product yields a larger amount of cDNA. The amplification has a high specificity and excellent gradient. The detection of low abundance template is superior to other competitive reagents.

	Genomic DNA amount				
	500 ng	200 ng	100 ng	50 ng	10 ng
TIANGEN	ND	ND	ND	ND	ND
Competitor A	32.78	35.90	ND	ND	ND
Competitor B	29.80	31.38	33.33	33.36	37.03
NRT	23.82	25.30	26.60	28.09	35.04

Table 1. Use TIANGEN FastKing gDNA Dispelling RT SuperMix and similar competitor A and B to reverse transcribe human RNA with artificially added genomic DNA. Use TIANGEN SuperReal PreMix Plus (SYBR Green) (4992214/4992215/4992248) to detect gDNA. The Ct results show that TIANGEN product has excellent genomic DNA removal ability, and genomic DNA residues up to 500 ng could be removed perfectly and would not affect the results.

FastKing One Step RT-PCR Kit

For fast and sensitive one-step RT-PCR

Description

FastKing One Step RT-PCR Kit allows both reverse transcription and gene amplification to take place in one single tube, which avoids cross contamination between samples and improves the sensitivity of detection.

The 25×RT-PCR Enzyme Mix contains King reverse transcriptase, which is a high efficient reverse transcriptase expressed by engineering bacteria; a further-modified hot start Taq DNA polymerase, which provides high efficiency and accuracy for the amplify reaction; and RNase inhibitor. With a special modified hydrophobic motif, King RTase gets a significant affinity for RNA and facilitates transcription through RNA templates, especially for templates with high GC content or complex secondary structures. The 2×FastKing One Step RT-PCR MasterMix contains appropriate ion concentration, dNTP and PCR enhancer. It could stablize both polymerases and keep their efficiency during the whole reaction process.

Features

- Pure: Reverse transcription and PCR reaction are completed in one tube, avoiding cross contamination.
- Efficient: The reverse transcribe efficiency of King reverse transcriptase is more than 95%.
- Sensitive: Templates as low as 1 ng could be accurately identified, and is very suitable for low abundance templates detection.
- Specific: The antibody modified Taq enzyme promotes the amplification efficiency and specificity.

Application

FastKing One Step RT-PCR Kit is used for detection of gene expression level in cells and tissues. It is especially suitable for qualitative detection of low abundance templates such as RNA viruses. It could be also used for the cloning of specific gene cDNA sequences.

Storage condition

FastKing One Step RT-PCR Kit could be stored at -20℃ for up to 12 months.

Order Information

Cat. no.	Quantity
4992294	50 μl×50 rxn

Contents and Storage

Contents	50 μl×50 rxn
2×FastKing One Step RT-PCR MasterMix	1.25 ml
25×RT-PCR Enzyme Mix	100 μl
RNase-Free ddH_2O	2×1 ml

Experimental Example

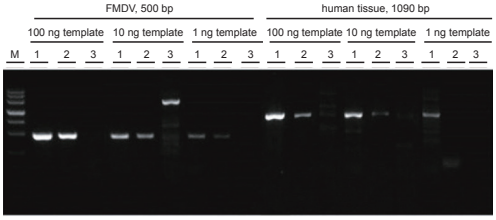


Fig.1 Total RNA of foot-and-mouth disease virus (FMDV) and human tissue samples were extracted, and the PCR results were observed by electrophoresis using FastKing One Step RT-PCR Kit (1), similar competitor A (2) and B (3). The results show that the PCR bands of TIANGEN FastKing One Step RT-PCR Kit are clear and bright, without smear and non-specific amplification. FastKing One Step RT-PCR Kit could be well recognized with 1 ng template, and superior to similar products.

SuperReal PreMix Plus (SYBR Green)

For accurate, stable real-time PCR using SYBR Green

Description

SuperReal PreMix Plus (SYBR Green) Kit is specially designed to perform Real-time PCR in SYBR Green I fluorescent-based detection assays. The Real-Time PCR reaction mix, a 2×pre-mixed solution included in this kit, provides an optimum concentration of SYBR Green I solution, which greatly facilitates the preparation of qPCR reaction mixture. SuperReal PreMix Plus adopts a unique dual hot-start enzymes system (chemically modified HotStart Taq DNA polymerase and antibody modified Anti Taq DNA Polyerase), which, plus the pre-optimized buffer solution, provides a convenient format for highly sensitive and specific qPCR amplification.

Features

- High Specificity: Unique K^+ and NH_4^+ balance system and H-Bond factor upgrades the amplification specificity.
- High sensitivity: Low abundance transcripts are well detected.
- High repeatability: The results are stable and reproducible.
- Simple and quick: The Real-Time PCR reaction could be carried out only adding templates, primers and ddH_2O.
- ROX correction: The ROX dye with separate packing is more flexible and the result is more accurate.
- Widely applied: It is widely applied to all kinds of quantitative PCR instruments such as ABI, Roche, Bio-Rad, etc.

Application

This kit is used for gene expression analysis and nucleic acid detection by SYBR Green method on various qPCR instruments.

Storage condition

The SuperReal PreMix Plus (SYBR Green) Kit should be stored immediately upon receipt at -20℃, protected from light.

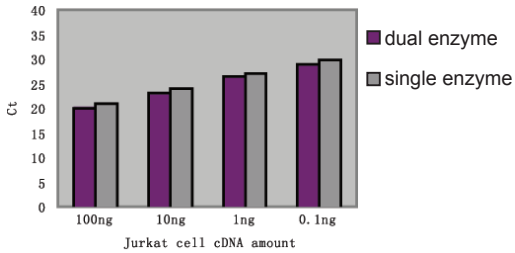
Order Information

Cat. no.	Quantity
4992214	20 μl×125 rxn
4992215	20 μl×500 rxn
4992248	20 μl×5000 rxn

Contents and Storage

Contents	20 μl× 125 rxn	20 μl× 500 rxn	20 μl× 5000 rxn
2×SuperReal PreMix Plus (SYBR Green)	1.25 ml	4×1.25 ml	10×4×1.25 ml
50× ROX Reference Dye	250 μl	1 ml	10×1 ml
RNase-Free ddH_2O	2×1 ml	5×1 ml	10×5×1 ml

Experimental Example



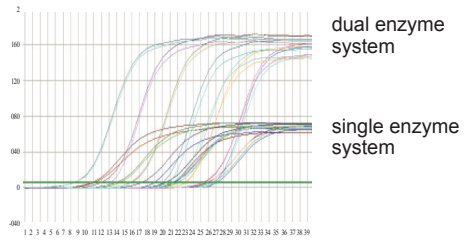


Fig.1 Compared with the traditional single enzyme amplification system, the dual enzyme automatic regulation system has higher amplification efficiency and stronger fluorescence value.

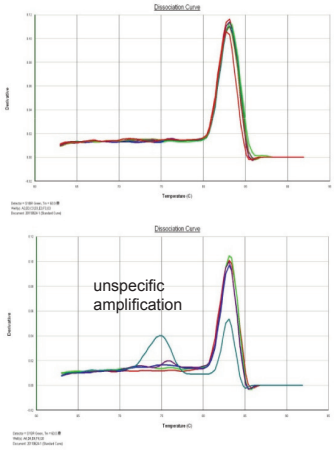


Fig 2. For the same template and primer system, the H-bond factor buffer system in TIANGEN SuperReal PreMix Plus (above) makes the amplification more specific and reproducible than ordinary buffer system in competitor A (below).

FastFire qPCR PreMix (SYBR Green)

For fast, specific real-time PCR using SYBR Green

Description

FastFire qPCR PreMix (SYBR Green) is designed for SYBR Green I based quantitative PCR assays, and enables fast and specific quantitative results. Optimized premix could reduce the running time and is suitable for regular and fast real-time PCR thermal cycler.

FastFire qPCR PreMix adopts antibody modified Anti Taq DNA polymerase. Combined with the unique PCR buffer, it could ensure a sensitive PCR detection on any Real-Time PCR thermal cycler. Total running time could be reduced by 60% compared with regular real-time PCR program. Meantime, accurate quantification, high amplification efficiency, high specificity and wide credibility range could be achieved.

Features

- Fast: Using rapidly activated antibodies modified anti-Taq DNA polymerase and a unique fast buffer system, this kit could save up to 60% of the reaction time.
- Strong amplification ability: The fluorescence signal is strong, and the result is more accurate and credible.
- Good stability: Buffer contains unique PCR stabilizers and enhancers to make the results more stable, reproducible, accurate and credible.
- ROX correction: The ROX dye with separate packing is more flexible and the result is more accurate.
- Widely applied: It is widely applied to all kinds of quantitative PCR instruments such as ABI, Roche, Bio-Rad, etc.

Application

This kit is used for gene expression analysis and nucleic acid detection by SYBR Green method on various qPCR instruments, especially used for fast gene detection.

Storage condition

The FastFire qPCR PreMix (SYBR Green) Kit should be stored immediately upon receipt at -20℃, protected from light.

Order Information

Cat. no.	Quantity
4992217	20 μl×125 rxn
4992218	20 μl×500 rxn
4992249	20 μl×5000 rxn

Contents and Storage

Contents	20 μl× 125 rxn	20 μl× 500 rxn	20 μl× 5000 rxn
2× FastFire qPCR PreMix (SYBR Green)	1.25 ml	4×1.25 ml	10×4×1.25 ml
50× ROX Reference Dye	250 μl	1 ml	10×1 ml
RNase-Free ddH_2O	2×1 ml	5×1 ml	10×5×1 ml

Experimental Example

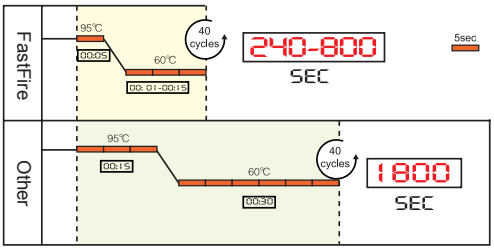


Fig.1 FastFire qPCR PreMix (SYBR Green)uses antibody-modified anti-Taq DNA polymerase, combined with unique fast buffer system, which saves up to 1000 seconds per experiment, improving the experimental efficiency and extending the service life of qPCR instrument.

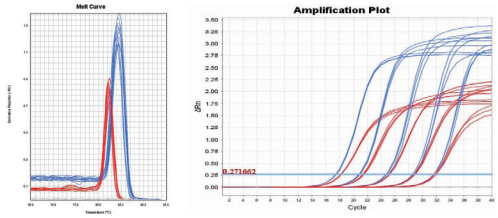


Fig 2. Use TIANGEN FastFire qPCR PreMix (SYBR Green) (blue lines) and similar competitor T (red lines) to detect gene β-actin in human cDNA templates (100-0.01 ng/μl). The results show that the fluorescence signal of FastFire qPCR PreMix is strong (which means amplification ability is strong), and has lower Ct value, exibiting its high sensitivity and accuracy for low concentration template. By contrast, the signal of competitor T is weak and Ct value is behind, and may lead to inaccurate results.

SuperReal PreMix (Probe)

For highly sensitive and specific probe-based real-time PCR detection with ROX

Description

SuperReal PreMix (Probe) is designed for probe based fluorescence quantitative PCR assay. It is 2× concentrated, ready-to-use convenient mix format.
SuperReal PreMix (Probe) provides two-component hot-start enzyme system (Chemically modified HotStart Taq DNA Polymerase and antibody modified Anti Taq DNA Polymerase). Combined with optimal buffer, it shows accurate quantifi cation, highamplifi cation efficiency, good repeatability and wide credibility range. We recommend SuperReal PreMix Plus (SYBR Green) (4992214/4992215/4992248) for quantitative PCR using SYBR Green I.

Features

- Dual enzyme system: Double polymerase automaticly regulate the efficiency of amplificaiton, keeping the stability of the reaction and getting more accurate data.
- Wide linear range: The linear detection range reaches at least 10^7 copy.
- High sensitivity: Low abundance templates such as virus and microorganism can be easily detected.
- Strong amplification ability: Fluorescence signal is strong.

Application

SuperReal PreMix (Probe) is used for gene expression analysis and nucleic acid detection by probe method on various qPCR instruments.

Storage condition

The SuperReal PreMix (Probe) Kit should be stored immediately upon receipt at -20℃.

Order Information

Cat. no.	Quantity
4992290	20 μl×125 rxn
4992291	20 μl×500 rxn
4992305	20 μl×5000 rxn

Contents and Storage

Contents	20 μl× 125 rxn	20 μl× 500 rxn	20 μl× 5000 rxn
2× SuperReal PreMix (Probe)	1.25 ml	4×1.25 ml	10×4×1.25 ml
50×ROX Reference Dye	250 μl	1 ml	10×1 ml
RNase-Free ddH_2O	2×1 ml	5×1 ml	10×5×1 ml

Experimental Example

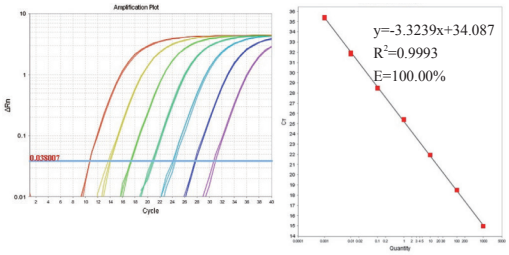


Fig.1 Use TIANGEN SuperReal PreMix (Probe) to detect λDNA. Templates undergo 10 times gradient dilution of 7 gradients (concentration from 1 ng/μl to 1 fg/μl). The results show that TIANGEN SuperReal has a wide linear detection range and can detect as low as 1 fg/μl template for λDNA. It has high amplification efficiency, good repeatability and excellent linear relationship.

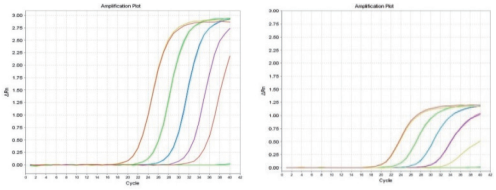


Fig 2. Use TIANGEN SuperReal PreMix (Probe) left and similar competitor T (right) to detect gene Lectin in soybean gDNA templates (100-0.01 ng/μl). The results show that the fluorescence signal of TIANGEN SuperReal is strong (which means amplification ability is strong), and has more standard amplification curve, exibiting its high sensitivity and accuracy for low concentration template. By contrast,
the signal of competitor T is weak, the sensitivity is low, and may lead to low concentration template can not be detected and false results.

FastFire qPCR PreMix (Probe)

For fast, specific real-time PCR using sequence-specific probe

Description

FastFire qPCR PreMix (Probe) is designed for probe based quantitative PCR assays, and enables fast and specific quantitative results with total running time 60% reduced compared with regular real-time PCR.

FastFire qPCR PreMix is ready to use with premix including hot-start DNA polymerase and unique PCR buffer. It could ensure a sensitive PCR detection on any Real-Time PCR thermal cycler.

Features

- Fast: Using rapidly activated antibodies modified anti-Taq DNA polymerase and a unique fast buffer system, this kit could save up to 60% of the reaction time.
- Strong amplification ability: The fluorescence signal is strong, and the result is more accurate and credible.
- Good stability: Buffer contains unique PCR stabilizers and enhancers to make the results more stable, reproducible, accurate and credible.
- ROX correction: The ROX dye with separate packing is more flexible and the result is more accurate.
- Widely applied: It is widely applied to all kinds of quantitative PCR instruments such as ABI, Roche, Bio-Rad, etc.

Application

This kit is used for gene expression analysis and nucleic acid detection by probe method on various qPCR instruments, especially used for fast gene detection.

Storage condition

The FastFire qPCR PreMix (Probe) Kit should be stored immediately upon receipt at -20˚c.

Order Information

Cat. no.	Quantity
4992220	20 μl×125 rxn
4992221	20 μl×500 rxn

Contents and Storage

Contents	20 μl× 125 rxn	20 μl× 500 rxn
2× FastFire qPCR PreMix (Probe)	1.25 ml	4×1.25 ml
50× ROX Reference Dye	250 μl	1 ml
RNase-Free ddH_2O	2×1 ml	5×1 ml

Experimental Example

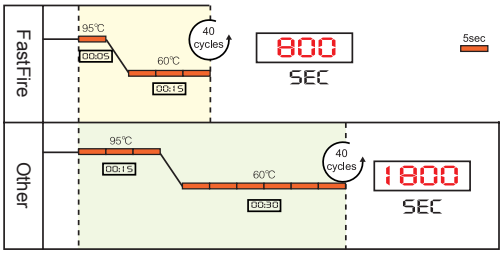


Fig.1 FastFire qPCR PreMix (Probe) uses antibody-modified anti-Taq DNA polymerase, combined with unique fast buffer system, which saves up to 1000 seconds per experiment, improving the experimental efficiency and extending the service life of qPCR instrument.

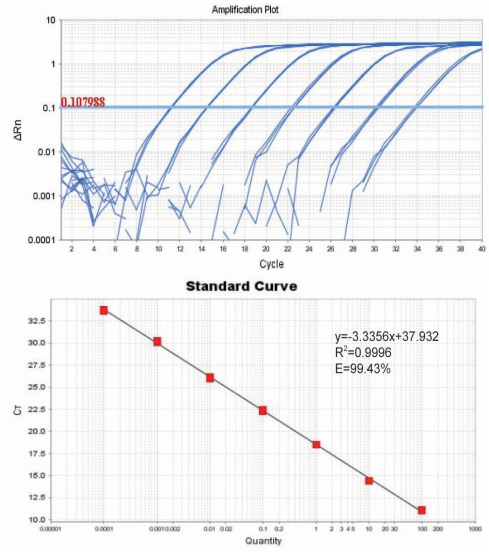


Fig 2. Use TIANGEN FastFire qPCR PreMix (Probe) to detect gene β-actin in human cDNA templates (100 ng/μl -0.1 pg/μl). The results show that FastFire qPCR PreMix has a wide linear detection range and can be used to detect templates as low as 0.1 pg/μl. It has high amplification efficiency, good repeatability and excellent linear relationship.

FastKing One Step RT-qPCR Kit (Probe)

For one-step real-time RT-qPCR using sequence-specific, hydrolysis probes

Description

FastKing One Step RT-qPCR Kit (Probe) provides a rapid real-time quantification using probe method (TaqMan®, Molecular Beacon, etc). The kit allows both reverse transcription and gene amplification to take place in one single tube, which avoids cross contamination between samples and improves the sensitivity of detection.

The 25×FastKing Enzyme Mix contains King reverse transcriptase, which is a high efficient reverse transcriptase expressed by engineering bacteria; a further-modified hot start Taq DNA polymerase, whcih provides high efficiency and accuricy for the amplify reaction; and RNase inhibitor. With a special modified hydrophobic motif, King RTase gets a significant affinity for RNA and facilitates transcription through of RNA templates, especially for templates with high GC content or complex secondary structures. The 2×FastKing One Step Probe RT-qPCR MasterMix contains appropriate ion concentration, dNTP and PCR enhancer. It could stablize both polymerases and keep their efficiency within the whole reaction process.

Features

- Pure: Reverse transcription and qPCR are taken place in one step, avoiding cross contamination.
- Sensitive: Templates as low as 1 ng could be accurately identified, especially suitable for detecting low abundance templates.
- Resistive: The kit could read through complex templates, has perfect resistance to impurity interference, and is suitable for various templates.
- Simple and convenient: Optimize the composition of the product and improve the efficiency of the experiment.

Application

FastKing One Step RT-qPCR Kit(Probe) is used for one-step Real-Time RT-qPCR with probes. It could be used to accurately detect the expression of mRNA, especially for trace RNA.

Storage condition

FastKing One Step RT-qPCR Kit(Probe) Kit should be stored immediately upon receipt at -20℃.

Order Information

Cat. no.	Quantity
4992292	50 μl×50 rxn
4992293	50 μl×200 rxn

Contents and Storage

Contents	50 μl× 50 rxn	50 μl× 200 rxn
2×FastKing One Step Probe RT-qPCR MasterMix	1.25 ml	4×1.25 ml
25×FastKing Enzyme Mix	100 μl	400 μl
50× ROX Reference Dye	250 μl	1 ml
RNase-Free ddH_2O	2×1 ml	5×1 ml

Experimental Example

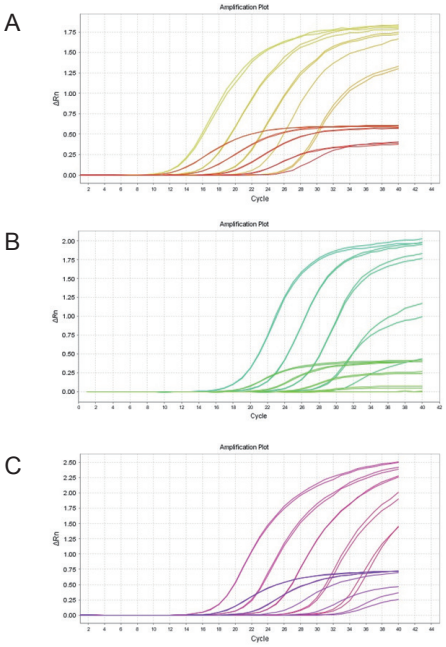


Fig.1 Total RNA of human 293T cells, maize leaves and enteroviruses were extracted, and target genes were detected by TIANGEN FastKing One Step RT-qPCR Kit (Probe) and similar competitor A. The results showed TIANGEN has higher fluorescence value, lower Ct, clear gradient and good repeatability.
A, human 293T cells samples. Orange lines, TIANGEN FastKing; red lines: competitor A.
B, maize leaves samples. Blue lines, TIANGEN FastKing; green lines: competitor A.
C, enteroviruses samples. Pink lines, TIANGEN FastKing 4; purple lines: competitor A.

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