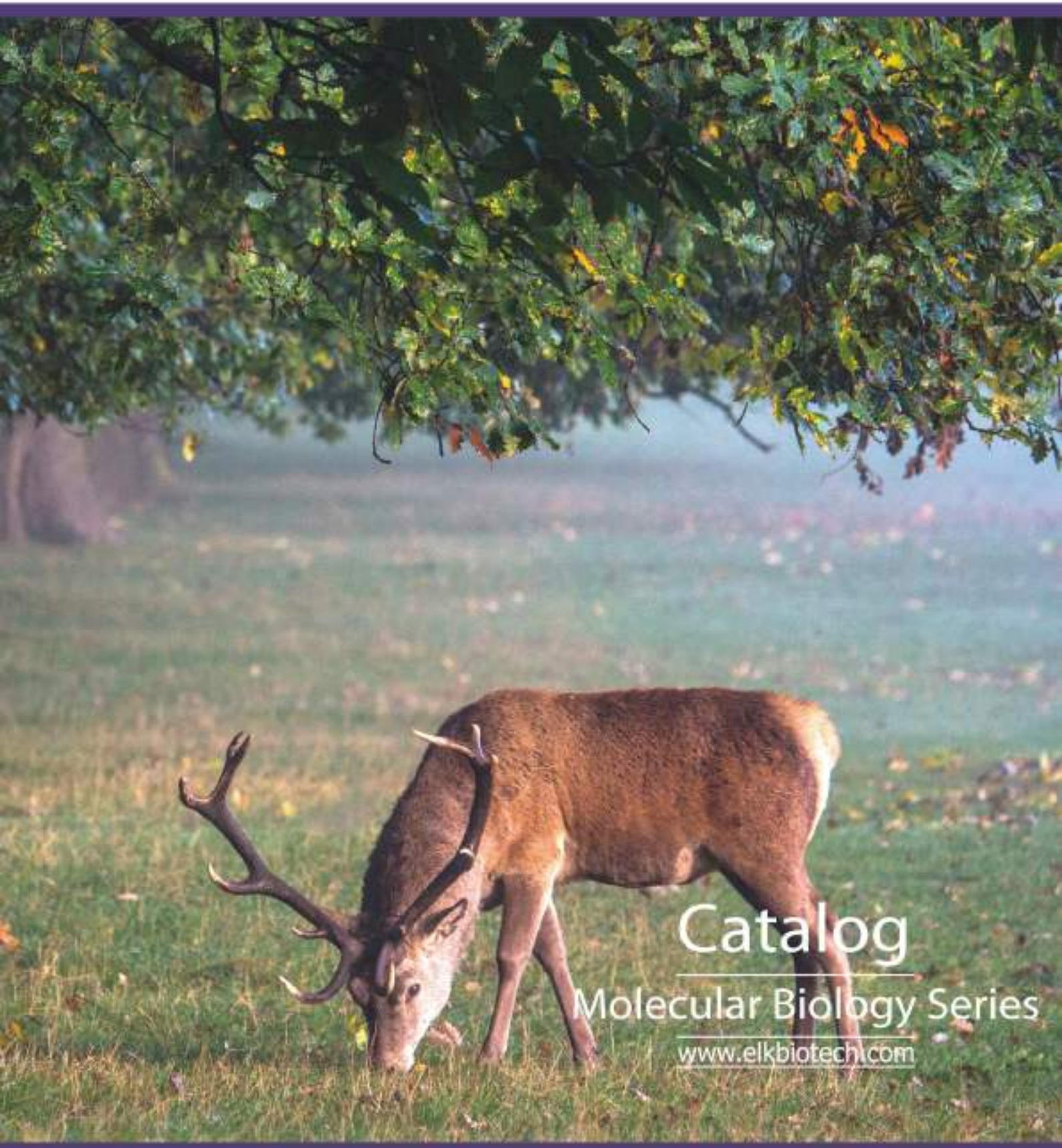
ELK Biotechnology®

Make Research Easier



Catalog

Molecular Biology Series

www.elkbiotech.com

QUALITY CONTROL BIOTECHNOLOGY AND AFTER-SALES SERVICE

Our Advantages

1. We own a professional and advanced-technical team with nearly One Hundred researchers, to a full range of 24-hours technical support.

2. We conduct rigorous testing of our products during the development phase to enhance the stability of our products.

3. If any issue with our products, replacement or refund are both accepted.

WHY CHOOSE ELK BIOTECHNOLOGY

Our Advantages

- A: High stability Cost-effective
- B: Full range of products
- C: Reliable technical service and better after-sale service
- D: Fast delivery and perfect supply
- E: Own a platform of 1,600 sq. ft laboratory

Our Products series

1

DNA Series

2

RNA Series

3

Plasmid Series

PRODUCTS

DNA processing related kit series, mainly including: blood/cell/tissue genomic DNA extraction kit, gel recovery/PCR product recovery kit, Taq/Pfu/KOD, FastPfu and various premixes

Taq/Pfu/KOD,
FastPfu and
various premixes

Amplification

DNA

Extraction

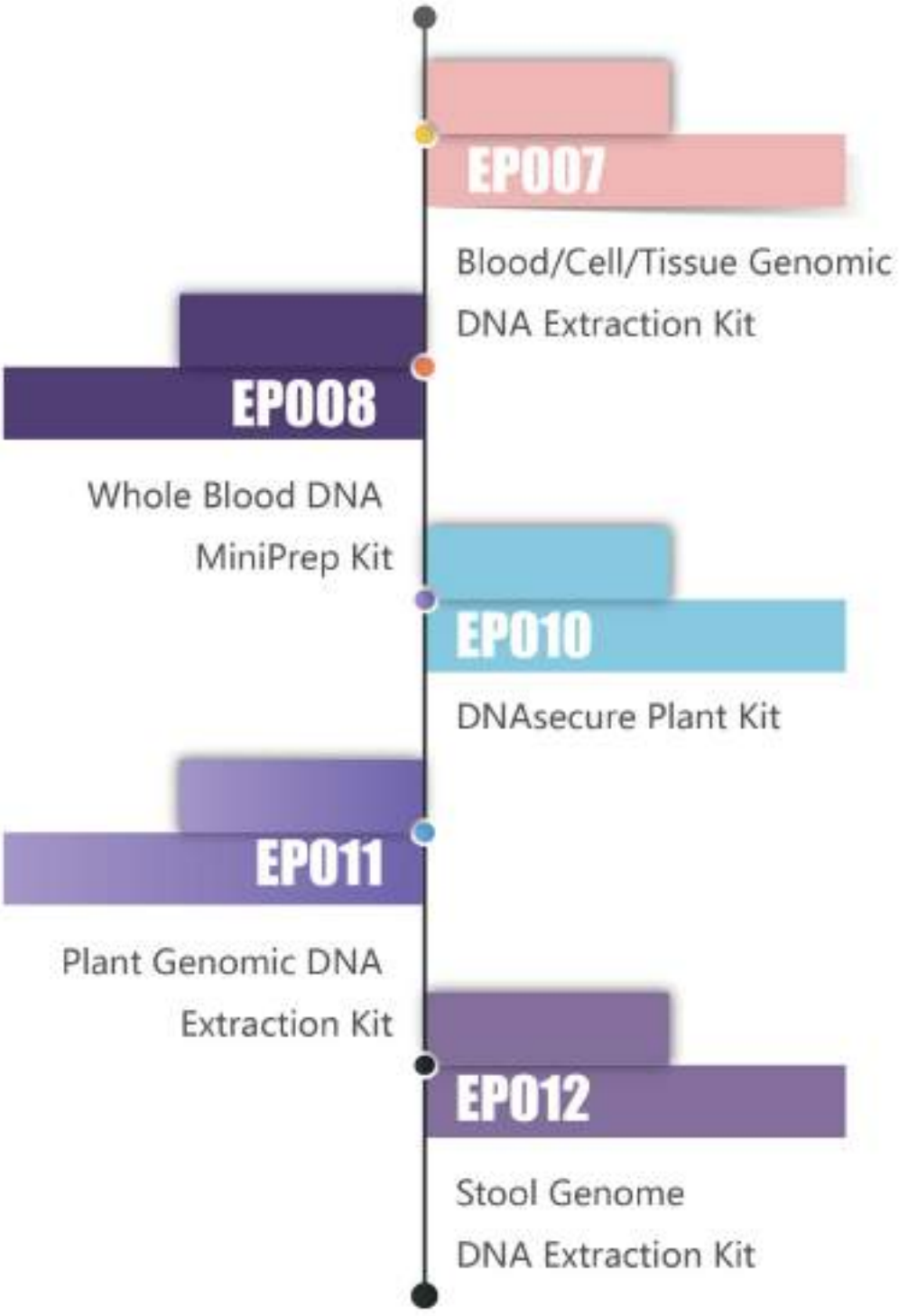
blood/cell/tissue
genomic DNA
extraction kit

Recovery

gel recovery/PCR
product
recovery kit

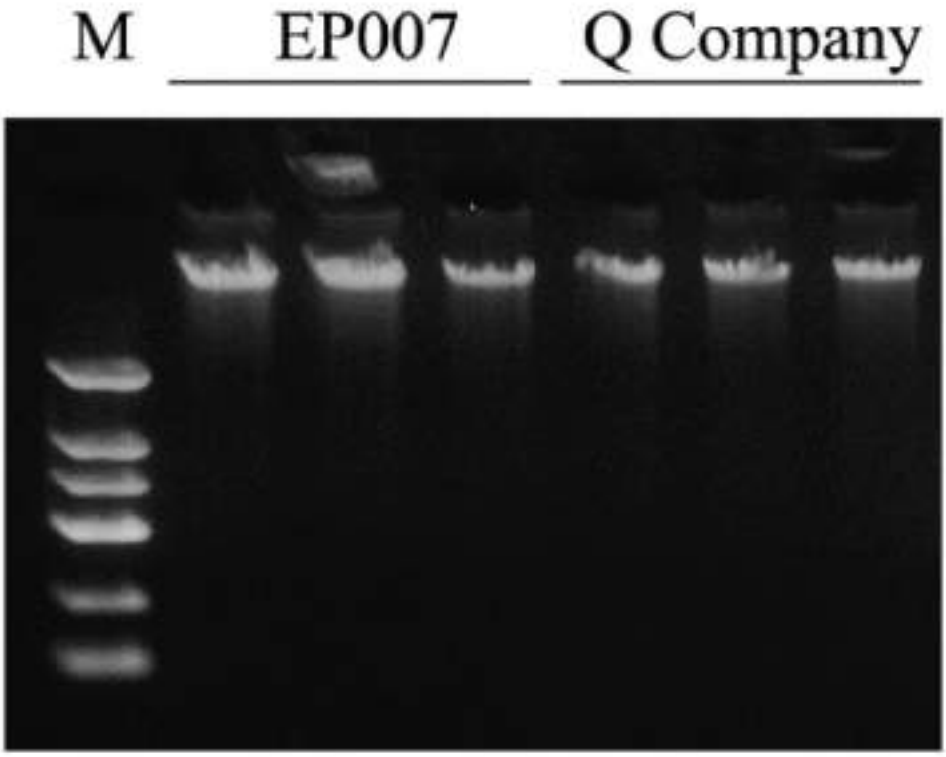
DNA extraction

The blood/cell/tissue genomic DNA extraction kit series are mainly used for the extraction of genomic DNA. The main products are: blood/cell/tissue genome extraction kit, whole blood genome extraction kit, plant genome extraction kit, Fecal genome extraction kits, etc.



DNA extraction

blood/cell/tissue genomic DNA extraction Kit (Cat.No : EP007 Blood /Cell/Tissue Genomic DNA Extraction Kit)

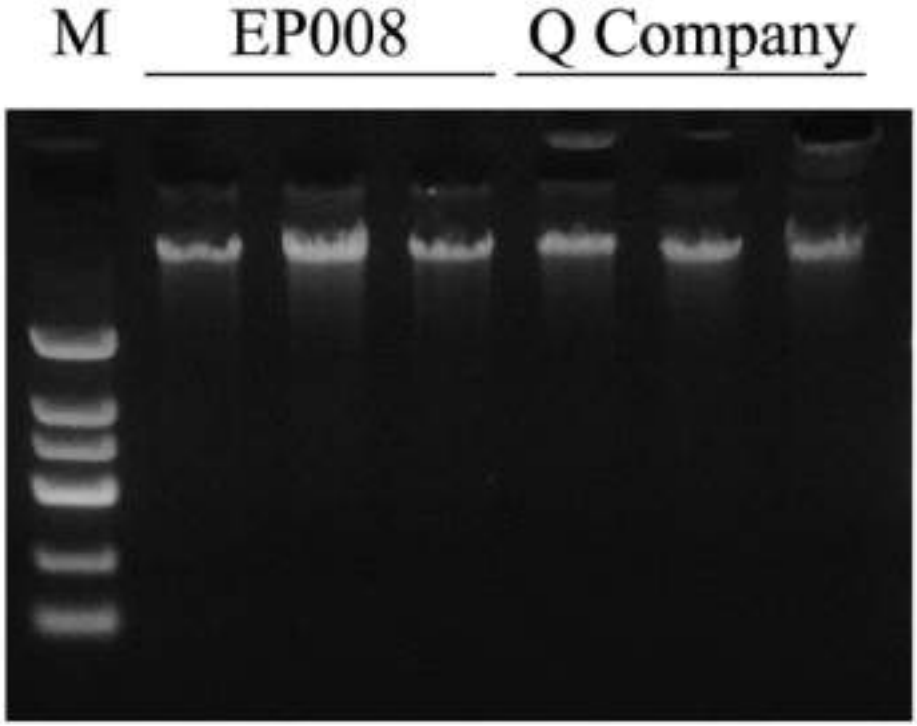


Features :

1.Wide applicability, applicable to blood, cells, tissues and bacteria.
2.High integrity, high-efficiency lysis solution formula, mild lysis environment, and higher DNA integrity.
3.High extraction rate, with using Biocomma adsorption membrane, the adsorption rate can be as high as 20-40μg/T after specific pretreatment.
4.Short operation process, and only 1.5-2H is required to complete the reagent. Compared with the traditional overnight digestion and extraction, the extraction speed is greatly improved and the precious time of scientific research workers is saved.

DNA extraction

Whole blood genomic DNA extraction kit （Cat.No：EP008 Whole Blood DNA MiniPrep Kit）



Features:

1.Special box dedicated,Specificity is developed for the whole blood environment.

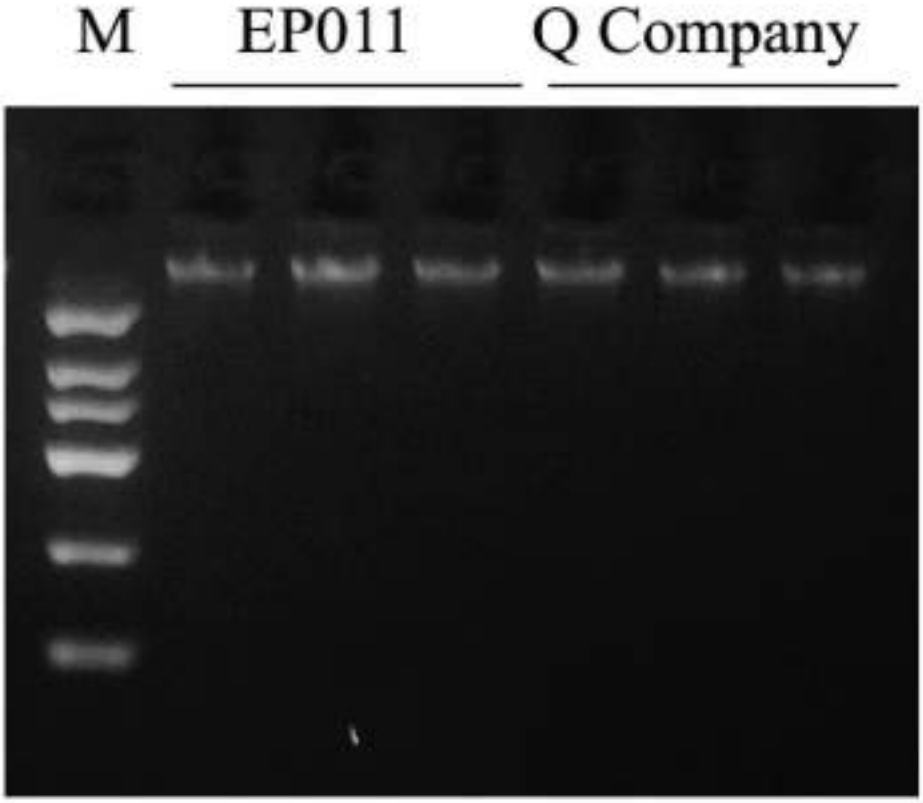
2.High integrity, using high-efficiency lysis solution formula, fast lysis speed, and higher DNA integrity.

3.High extraction rate, with using Biocomma adsorption membrane, the adsorption rate can be as high as 20-40μg/T after specific pretreatment.

4.Extremely simple steps. Compared with traditional kits, this kit has extremely simple steps. The whole blood genome can be extracted within 20 minutes at the fastest, which greatly improves work efficiency.

DNA extraction

Plant Genomic DNA Extraction Kit （Cat.No：EP011 Plant Genomic DNA Extraction Kit）



Features：

1.High specificity, the lysate system specially designed for plant tissues/ cells can serve plant genome extraction more efficiently.

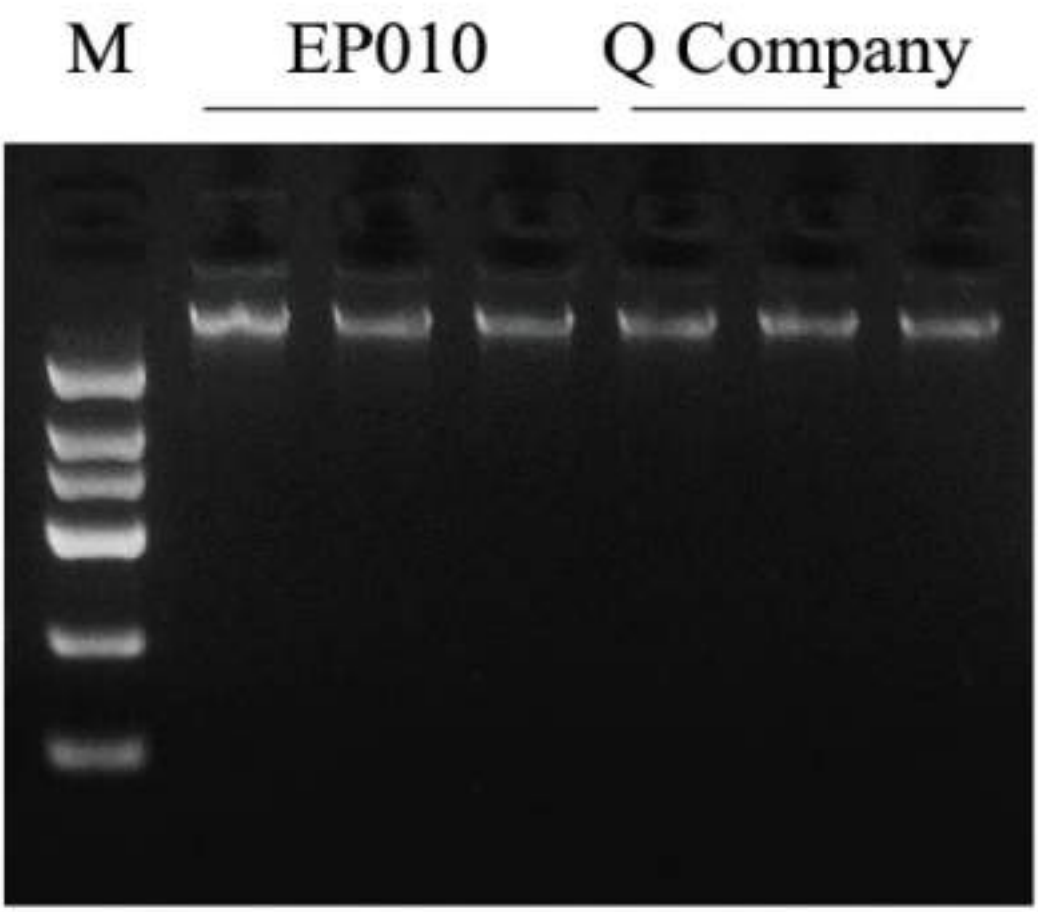
2.High integrity, using specific lysis solution, stable working environment, high integrity of the obtained DNA.

3.High extraction rate, with using Biocomma adsorption membrane, the adsorption rate can be as high as 20-40μg/T after specific pretreatment.

4.Simple operation, this Kit is specific for plant genome extraction, and the extraction steps are simple. Compared with the traditional overnight digestion extraction, the extraction speed is greatly improved and the precious time of scientific research workers is saved.

DNA extraction

Phenol-Chloroform-Free plant genome extraction Kit (Cat.No : EP010 DNAsecure Plant Kit)



Features :

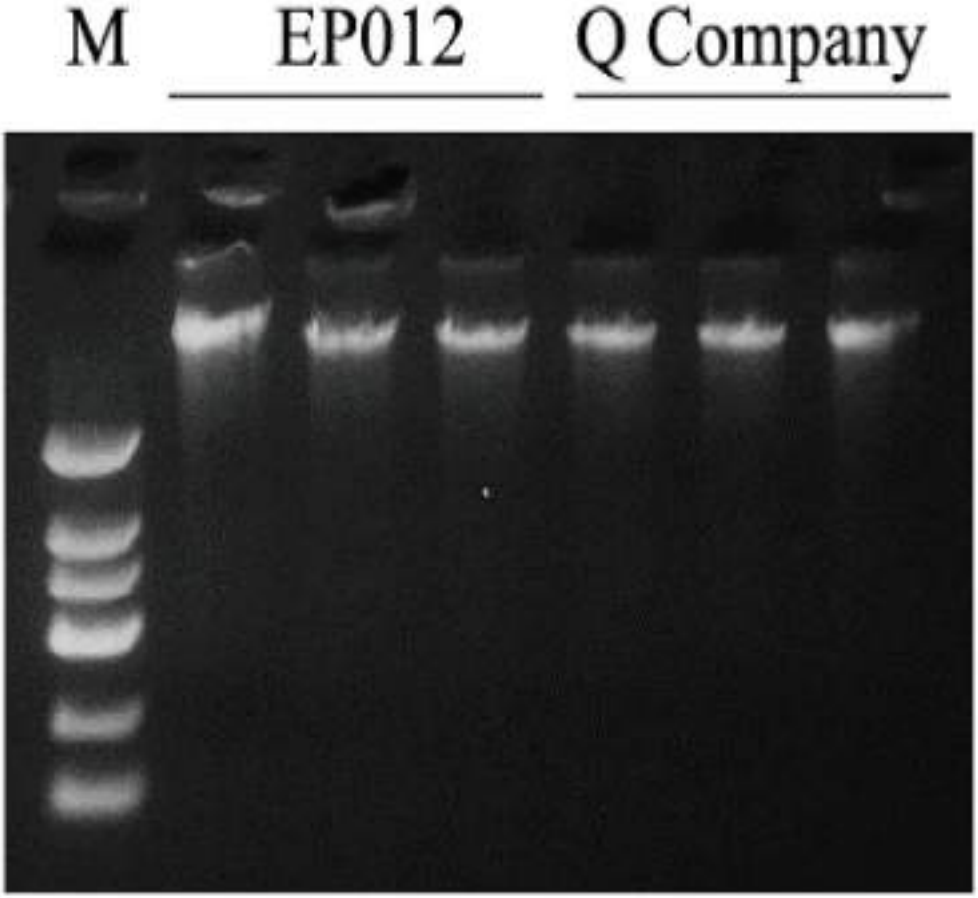
1.Safe and efficient, using a safe phenol-free imitation reagent system, minimal operating steps, to provide you with a safe and efficient operating environment.

2.Highly targeted,highly efficient lysis solution formula specially designed for young plant tissues and cells, the lysis environment is mild and it is more convenient to use.

3.High extraction rate, with using Biocomma adsorption membrane, the adsorption rate can be as high as 20-40μg/T after specific pretreatment.

DNA extraction

Fecal Genomic DNA Extraction Kit （Cat.No：EP012 Stool Genome DNA Extraction Kit ）



Features：

1.Strong specificity, the targeted research and development plan for soil, feces and other extremely acid and extremely alkaline environment sample treatment programs, the extraction effect is more stable.

2.High extraction rate, with using Biocomma adsorption membrane, the adsorption rate can be as high as 20-40μg/T after specific pretreatment.

3.Short operation process, and only 1.5-2H is required to complete the reagent. Compared with the traditional overnight digestion and extraction, the extraction speed is greatly improved and the precious time of scientific research workers is saved.

RNA extraction

RNA extraction Kit series, mainly used for RNA extraction. The main products are: blood/cell/tissue genome general extraction Kit, Virus RNA extraction Kit, plant RNA extraction Kit

TRIpure Total RNA Extraction Reagent

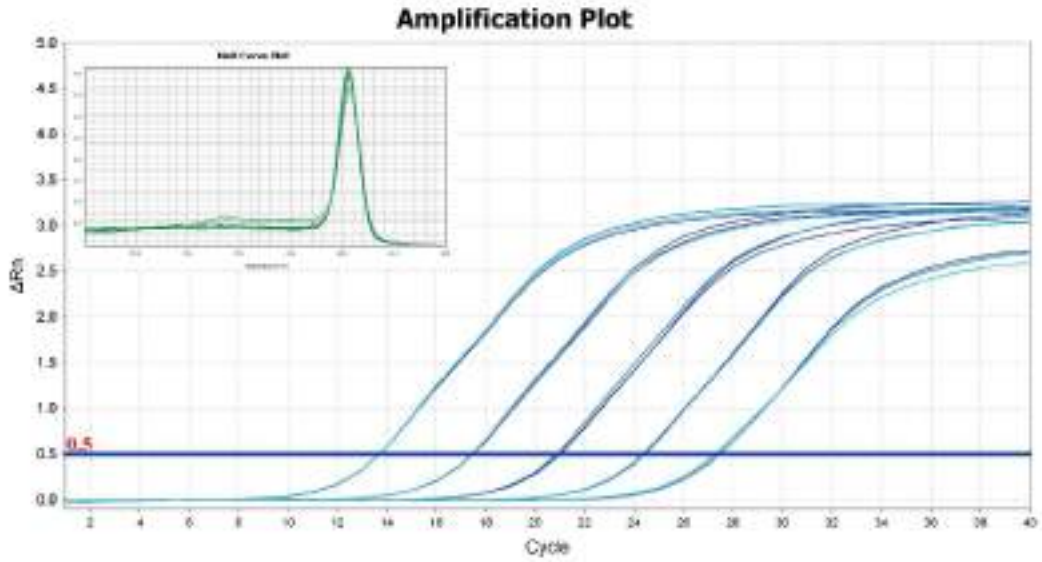
Total RNA Extraction Kit

Viral RNA extraction Kit

Plant Total RNA Extraction Kit

RNA extraction

Viral RNA extraction Kit (Cat.No : EP017)



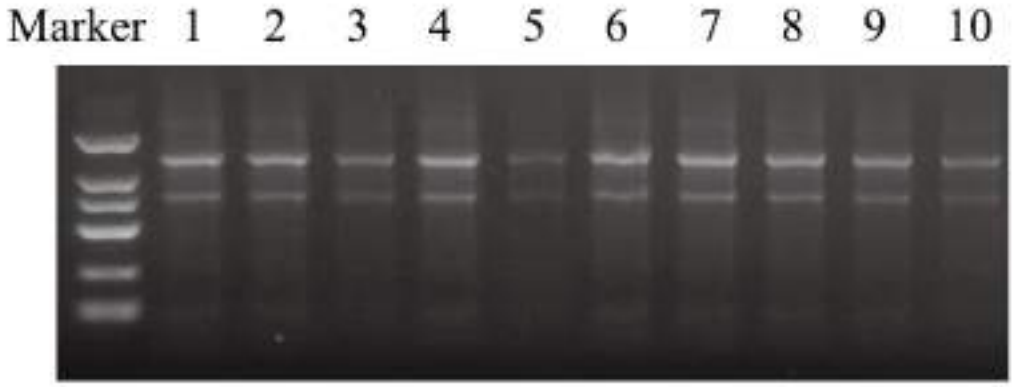
The picture shows the amplification curve and dissolution curve of HCV RNA extracted by virus purification reagents for fluorescent quantitative PCRThe HCV serum concentrations from left to right are as follows: 5*10⁵copies/ml,5*10⁴copies/ml,5*10³copies/ml,5*10²copies/ml,5*10¹copies/ml

Features :

1.Suitable for separating and purifying virus DNA or RNA from samples such as plasma, serum and other cell-free body fluids.
2.Carrier RNA is added to the kit, which can easily capture trace nucleic acid from the system, which is convenient and fast, high yield and good repeatability.

RNA extraction

Plant RNA extraction Kit （Cat.No：EP018）



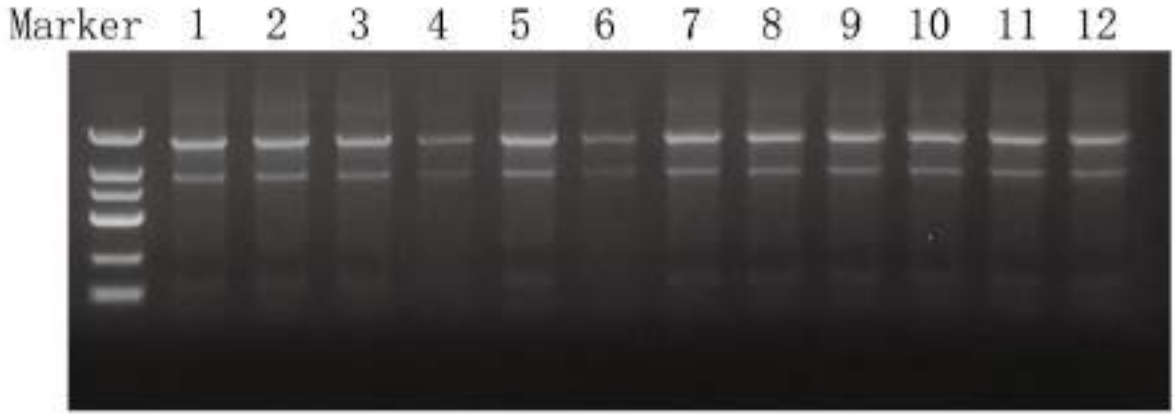
1,2 Fresh tobacco leaves
3,4 Fresh Arabidopsis leaves
5,6 Fresh pseudo-corn leaves
7,8 Fresh rice leaves
9,10 fresh pine needles
The picture shows the use of the kit to extract RNA, the elution volume is 30uL, the RNA loading volume is 6uL, and the result of 1% agarose gel electrophoresis
Marker:ELK EDL101

Features：

1.Widely suitable for rapid extraction of RNA from a variety of plant samples, RNA extraction can be completed within 30 minutes.a
2.Strong compatibility, not only suitable for samples of ordinary stems and leaves, but also for samples of polysaccharides and polyphenols.
3.Safe and low toxicity, no need to use toxic reagents such as β-mercaptoethanol, DTT, chloroform, phenol, etc.

RNA extraction

Tissue, cell, whole blood RNA extraction Kit （Cat.No：EP014）



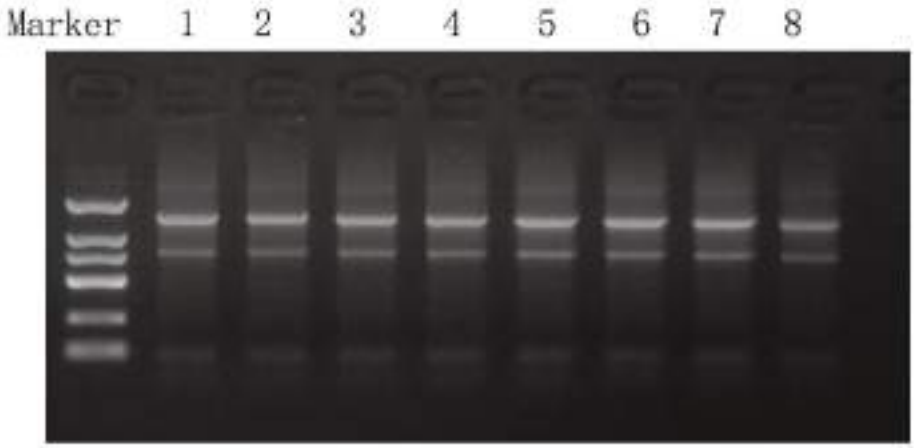
1,2 Kidney 40mg
3,4 liver 40mg
5,6 Muscle 40mg
7,8 lung 40mg
9,10 Spleen 40mg
11,12 Intestinal tissue 40mg
The picture shows the use of the kit to extract RNA, the elution volume is 50ul, the RNA loading volume is 6ul, and the result of 1% agarose gel electrophoresis
Marker:EDL101

Features：

1.Strong compatibility, suitable for samples of animal tissues, bacteria, cells, whole blood, etc.
2.Safe and low toxicity, no need to use toxic reagents such as β-mercaptoethanol, DTT, chloroform, phenol, etc.
3.Rapid RNA extraction within 30 minutes.

RNA extraction

TRIpure Total RNA Extraction Reagent (Cat.No : EP013)



1,2: Rat kidney tissue 40mg 5,6: 1*10⁶HEPG2 cells
3,4: Mouse cerebral cortex 20mg 7,8: Human whole blood sample 200ul
The picture shows the RNA extracted with 1ml Trizol for different samples, 50ul dissolved RNA precipitation, the sample volume is 6uL and the result of 1% agarose gel electrophoresis

Features :

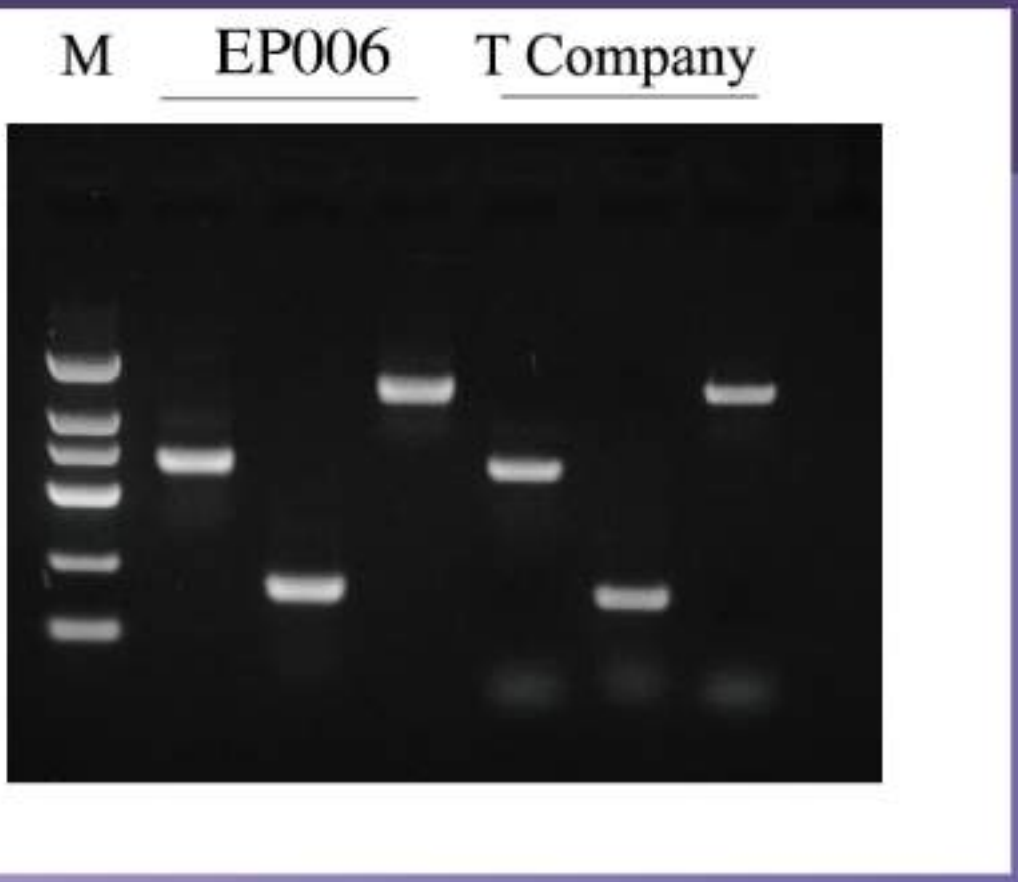
1.It has more powerful lysis ability and higher sensitivity , and can be used to extract total RNA from viruses, bacteria, fungi, animal and plant cells, tissues, body fluids and other samples.

2.A special indicator is added, and the lower layer is pink after centrifugation and layering, which is easy to absorb the supernatant.

3.Total RNA with high yield, high purity and good integrity can be extracted within 1 h.

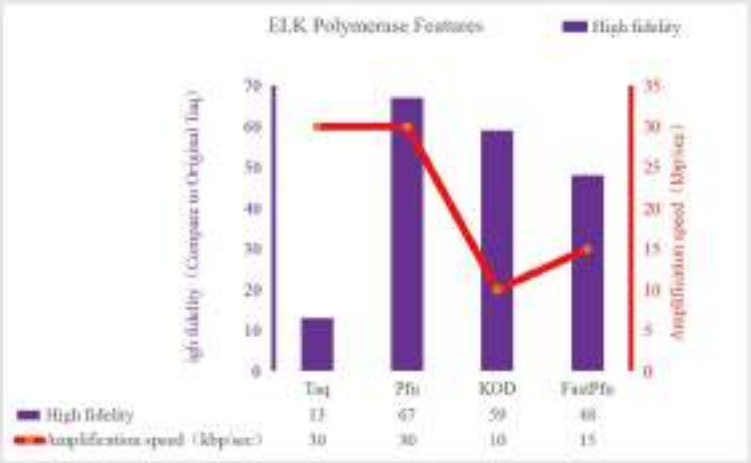
RNA extraction

Gel DNA Purification Kit （Cat.No：EP006）



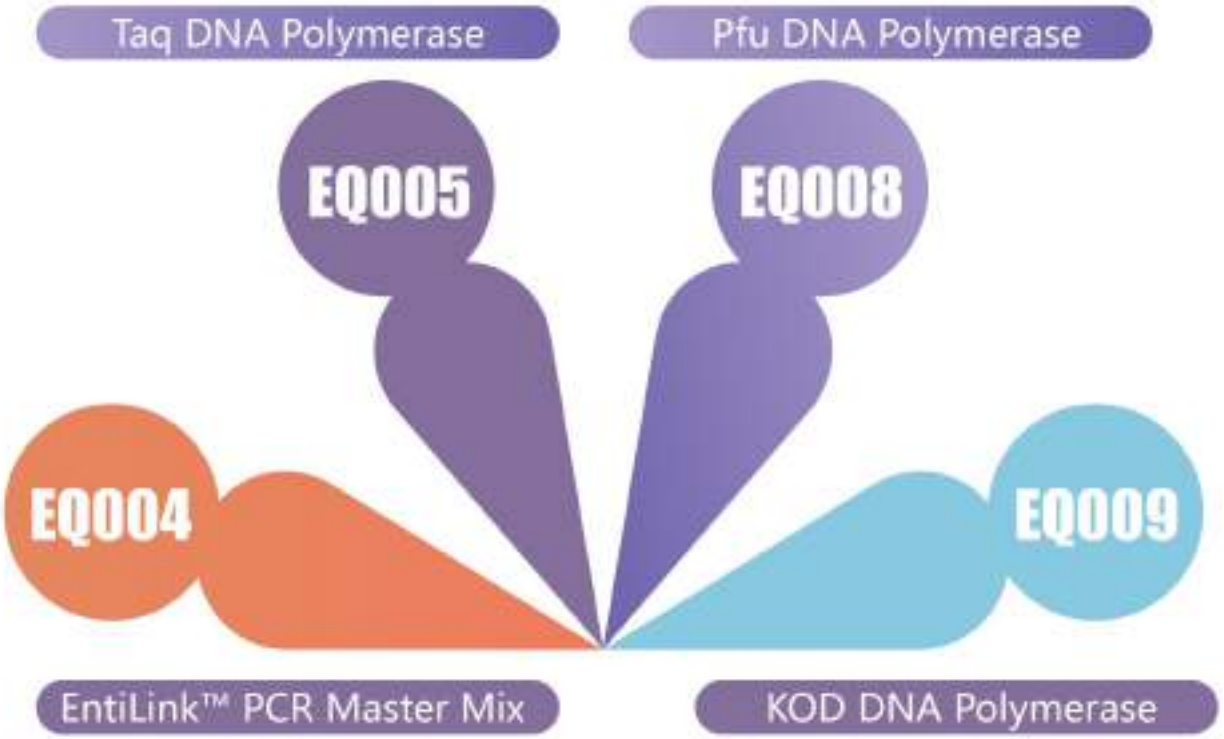
Features：

DNA fragments can be recovered from TAE or TBE agarose gel, while removing impurities such as proteins, other organic compounds, inorganic salt ions and oligonucleotide primers, and recovering 100 bp-15 kb DNA fragments with a recovery rate of up to 80%.

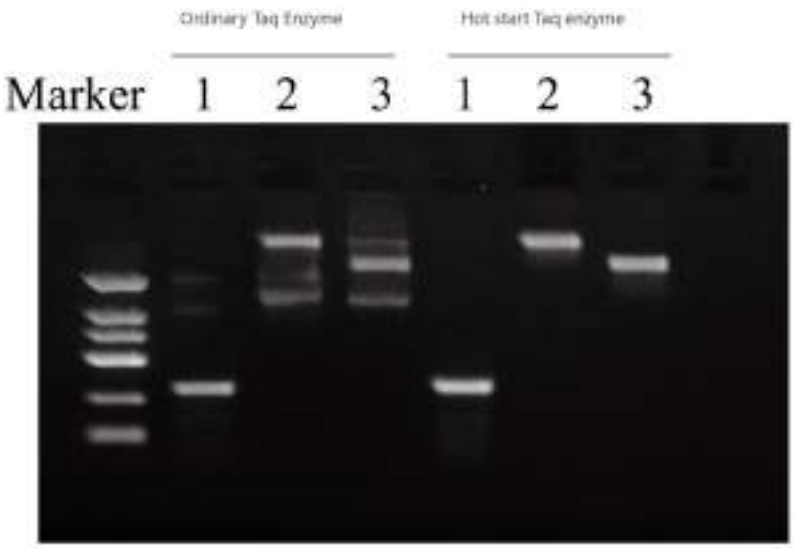


Taq/Pfu/KOD、FastPfu and various premixes

Amplification-related reagents (kits) series mainly include: Taq/Pfu/KOD, FastPfu and various premixes. Among them, Taq is the most basic, covering most of the basic products for amplification work. On top of this, we have developed a high security Real Pfu series, KOD series with high amplification rate, FastPfu series with both fidelity and amplification rate.



Hot-start enzyme amplification comparison chart



The above picture is the gel electrophoresis image of the ordinary Taq enzyme and the hot-start Taq enzyme respectively amplifying human fund group DNA. Marker is EDL101

Taq/Pfu/KOD、FastPfu and various premixes

HS Taq Enzyme Amplification Reagent

(Cat.No : EQ006)

Features :

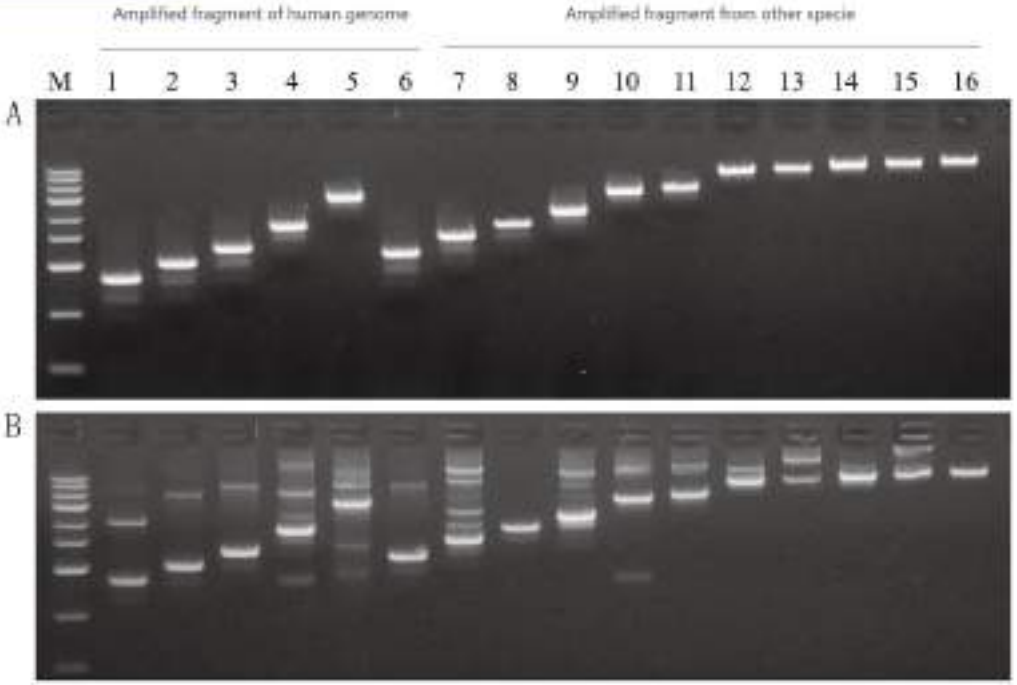
1.On the basis of the original Taq DNA Polymerase, we have carried out a substantial transformation to remove redundant structures, retain only the core functional regions, mutate inefficient sites, and add structural regions with stronger binding power, making it ancient and The classic taq replays its brilliance.

2.The amplification speed reaches 30sec/kb, the fidelity is 13 times that of the original Taq, and the amplification limit can reach 15kbp.The taq enzyme monoclonal antibody is used to block.

3.The taq enzyme activity, which can effectively inhibit the non-specific annealing of the primer and the non-specific amplification caused by the primer dimer under normal temperature conditions.

Taq/Pfu/KOD、 FastPfu and various premixes

Pfu series polymerase （Cat.No：EQ008 ）



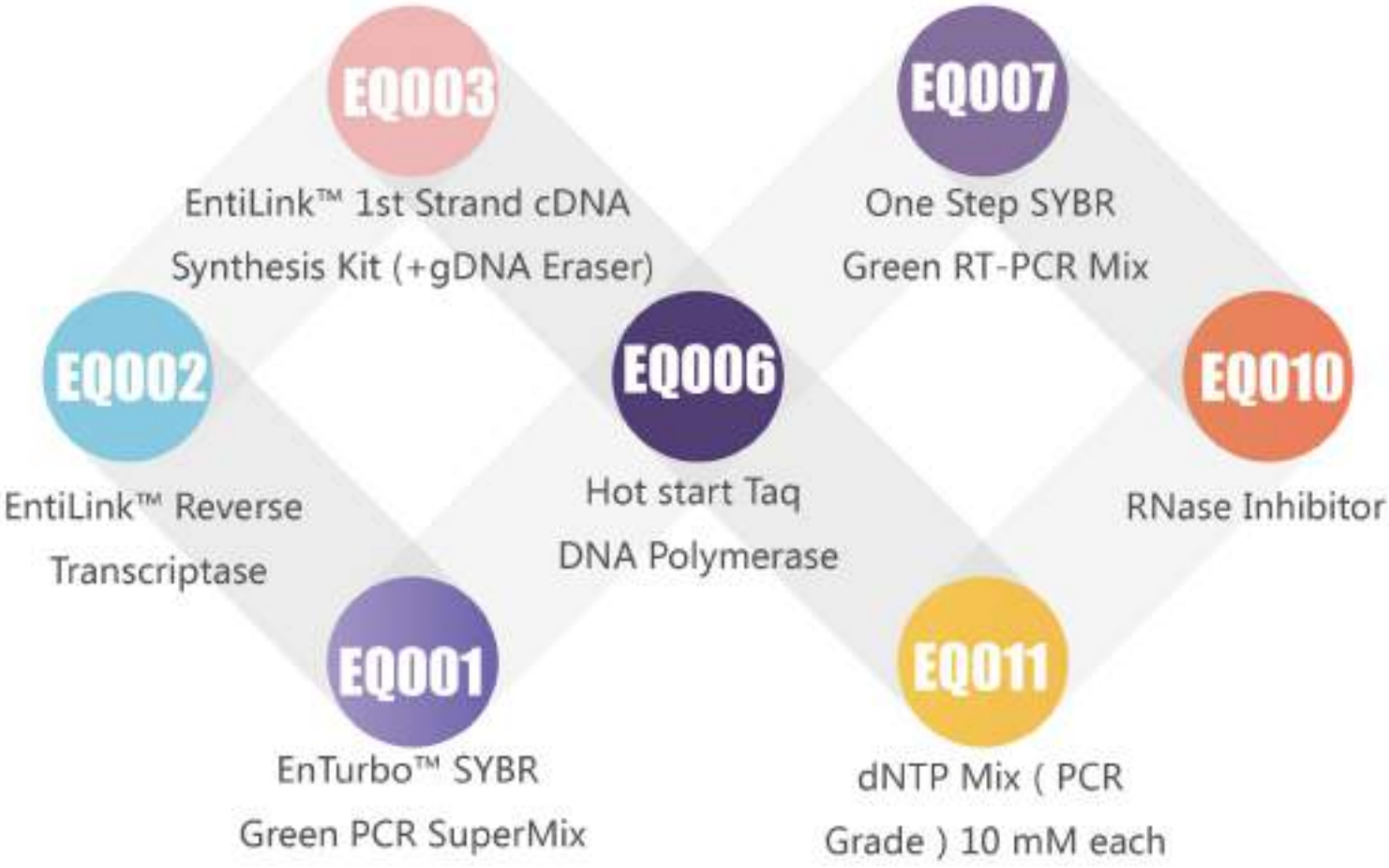
Picture A. pfu amplification results
Picture B. High-fidelity enzyme amplification results of other companies 1-850bp 2-1125bp 3-1700bp 4-2300bp 5-5000bp 6-1850bp (GC% is 70%) 7-rat 8-Rice 9-Wheat 10-Corn 11-Bacteria 12-Rice 13-Corn 14-Bacteria 15-λ DNA(15kb)

Features :

1.The heat-resistant temperature reaches 98℃, and the fidelity is 52 times that of Taq DNA polymerase.
2.It has extremely strong amplification efficiency and wide template adaptability, which is very suitable for the amplification of complex templates.
3.High GC and long fragments from different sources can be easily obtained.

Taq/Pfu/KOD、FastPfu and various premixes

RT-qPCR series Kits



Star Products :

The important series-RT-qPCR series products derived from Taq mainly include : EQ001 EnTurbo™ SYBR Green PCR SuperMix.

EQ003 EntiLink™ 1st Strand cDNA Synthesis Kit (+gDNA Eraser).

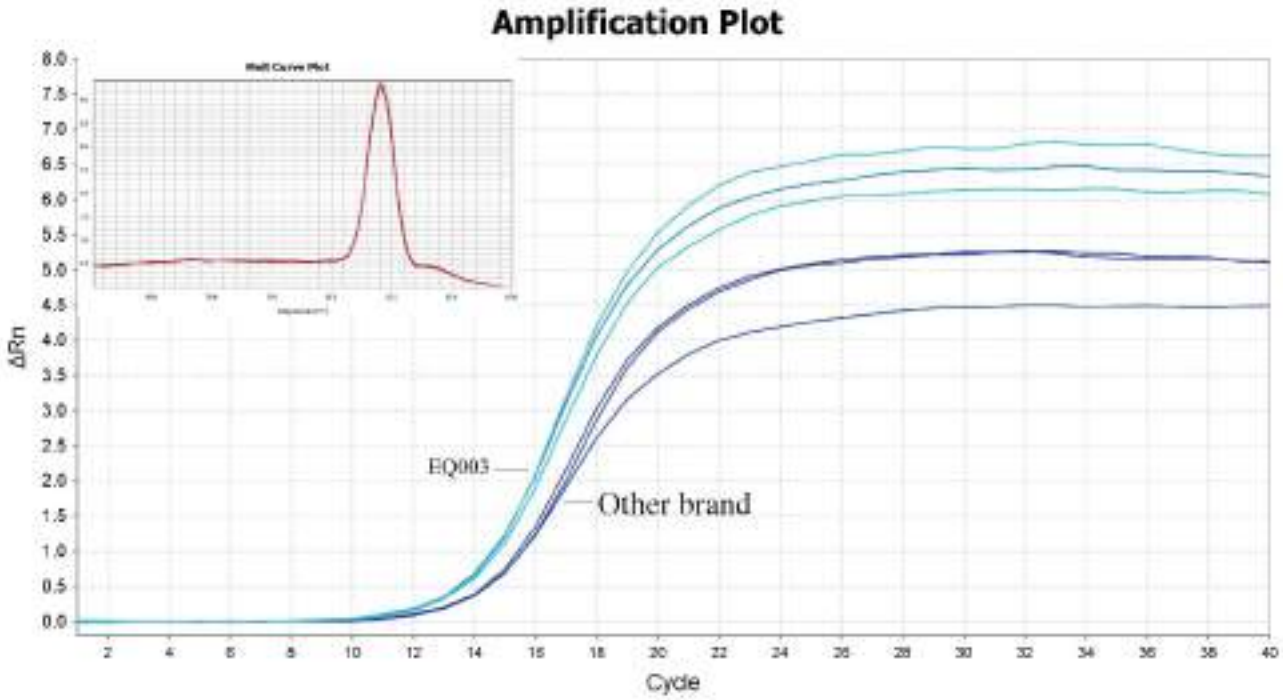
EQ002 EntiLink™ Reverse Transcriptase.

EQ010 RNase Inhibitor .

EQ011 dNTP Mix (PCR Grade) 10 mM each .

EQ006 Hot start Taq DNA Polymerase.

EQ007 One Step SYBR Green RT-PCR Mix.



The picture shows the initial amount of rat RNA with the same 0.5ug, after reverse transcription with a different company's cDNA kit, diluted 10 times, and 2ul as a PCR template for fluorescence quantitative PCR to obtain the amplification curve and dissolution curve.
PCR primers: mouse GAPDH internal reference gene

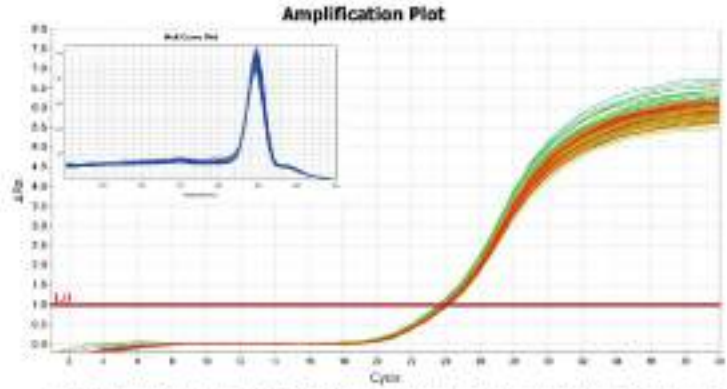
M-MLV Reverse transcription

High to low concentration internal reference QPCR chart (comparison)

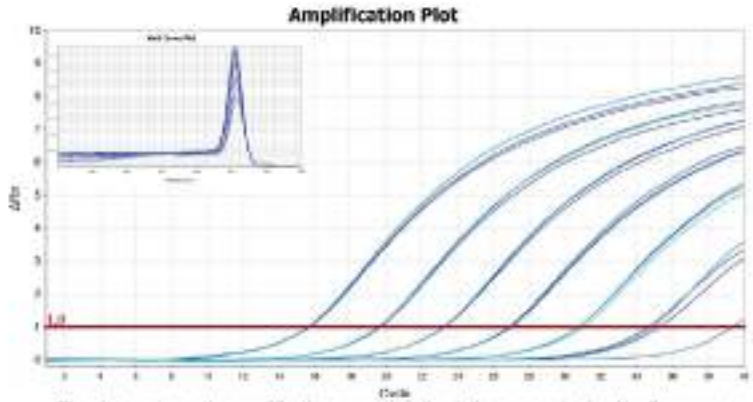
Long-length cDNA amplification running gel chart (comparison)

- I Reverse transcription efficiency can reach 90%.
- I Complete the whole experiment in one step at 37℃.
- I Read through RNA templates with high GC content and complex secondary structure.
- I Good compatibility with subsequent PCR or quantitative PCR experiments, suitable for various PCR thermostable polymerases.
- I Suitable for reverse transcription of total RNA with a template amount of 50 ng-2 μg.
- I Real-time fluorescent quantitative RT-PCR.
- I Semi-quantitative PCR reaction.
- I 3′ - and 5′ - RACE etc.

2*Sybr green Mix



The picture shows the amplification curve and dissolution curve obtained by fluorescence quantitative PCR after the initial amount of 0.5ug rat RNA was reverse-transcribed by the cDNA kit, diluted 10 times, and 2ul was used as the PCR template for 96 repeated spotting. PCR primers: rat COL1A1 primer

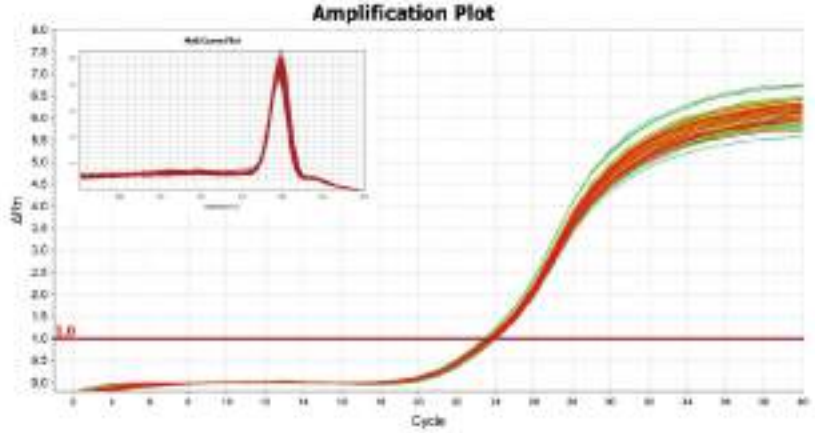


The picture shows the amplification curve and dissolution curve obtained by fluorescence quantitative PCR after the initial amount of 0.5ug rat RNA was reverse-transcribed by the cDNA kit, diluted 10 times, and 2ul was used as the PCR template for 96 repeated spotting. PCR primers: rat COL1A1 primer

1. Hot-start enzyme antibody method, suitable for the amplification of various high-complex structures and low-copy genes.

2. Equipped with a new type of Rox reference dye, suitable for various types of PCR machines on the market.

3. Derivation: high rox Mix, low rox Mix, no need to add reference dye.



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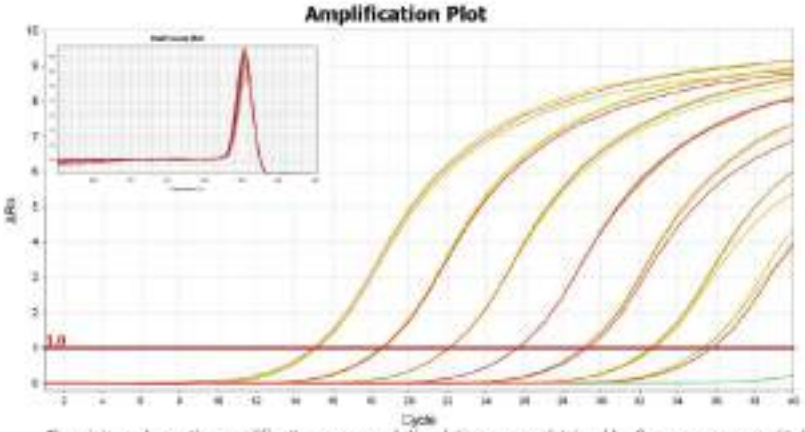

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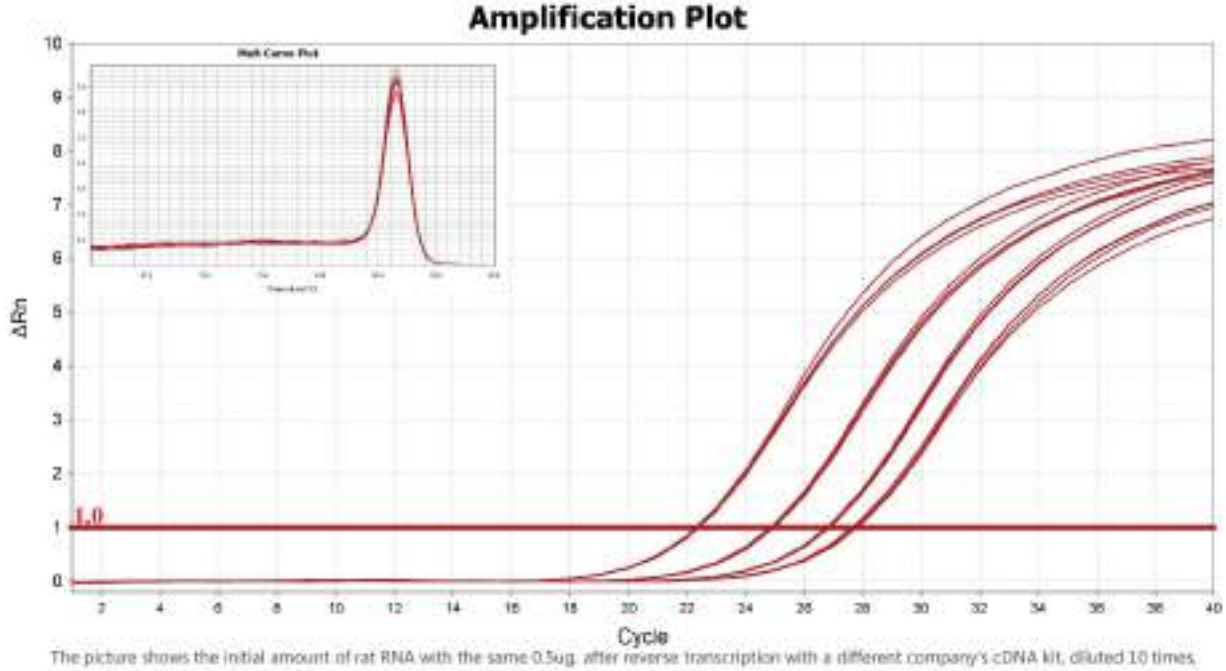
2*probe Mix

1. Hot-start enzyme antibody method, suitable for the amplification of various high-complex structures and low-copy genes.
2. Equipped with a new type of Rox reference dye, suitable for various types of PCR machines on the market.
3. Suitable for the amplification of low-concentration templates, so that quantitative PCR can obtain a good standard curve in a wide quantitative area.

One Step SYBR Green RT-PCR Mix



The picture shows the initial amount of rat RNA with the same 0.5ug. after reverse transcription with a different company's cDNA kit, diluted 10 times and 2ul as a PCR template for fluorescence quantitative PCR to obtain the amplification curve and dissolution curve.PCR primers: mouse GAPDH internal reference gene

1. Using RNA as a template for quantitative PCR reaction, which simplifies the experimental operation and reduces the risk of contamination.
2. Hot start Taq DNA polymerase makes the PCR reaction after reverse transcription has higher amplification efficiency and specificity.
3. Equipped with ROX reference dye, suitable for various models on the market.

Features :

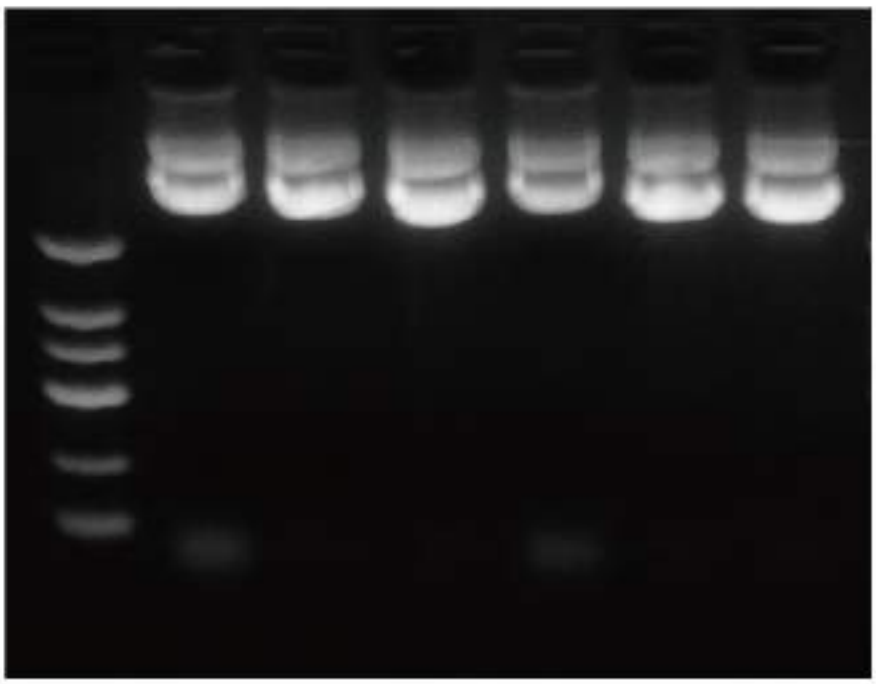
1.Special endotoxin removal solution and filter are used to effectively remove impurities such as endotoxin and protein.

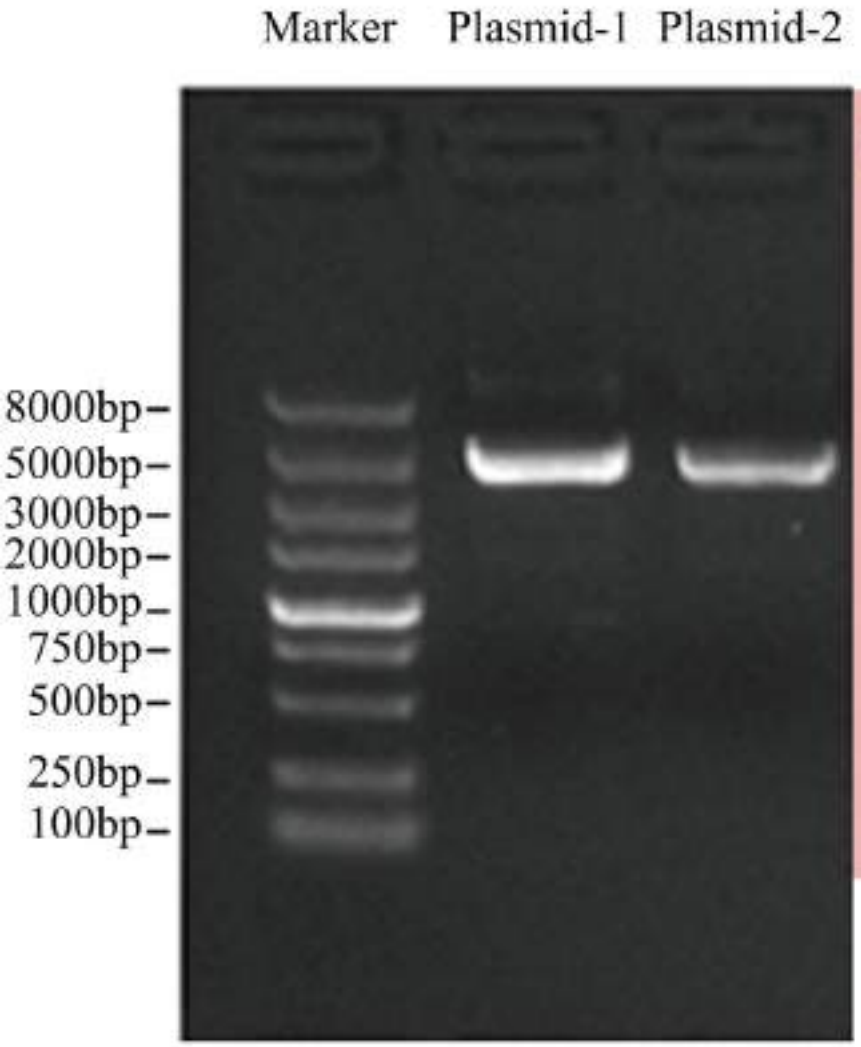
2.Special color indicator is used to facilitate the observation of the operation process.

3.There are also conventional plasmid extraction kits to meet various experimental needs.

Plasmid extraction

Various plasmid extraction reagents (Cat. No : EP001)





Features :

1.Using 3 enzyme systems, plus 2 kinds of cofactors, directional cloning of a single DNA fragment onto the vector, the positive rate is higher than 95%.

2.The reaction time is greatly shortened, and the fastest is only 5mins.

Cloning System

Limitless™ ELZ Fusion reagent （Cat.No : LEF01）

3.Single or multiple fragments can be inserted at the same time, eliminating the need for repeated purification and restriction digestion processes.

4.One-pipe operation, simple steps, no additional buffer addition and calculation.