

Nucleic acids preparation / DNA&RNA Purification

Many methods are available to extract and purify nucleic acids, depending on :

- ! starting material; this include complex biological samples (tissues, cells, bacteria, virus...) and *in vitro* p (amplifications reactions, affinity chromatography fractions...)
- ! desired nucleic material: DNA, cDNA, plasmids, RNA, mRNA,...
- ! the goal: to isolate, concentrate or desalt nucleic material. The purity and quality of DNA/RNA, usually $OD_{260/280}$ measurement, should suit downstream applications, including analysis, PCR amplifications, dia therapeutics.

Interchim offers basic chemical reagents for extraction of nucleic acids, as well as kits, based mainly on s exchange, that make easier process of specific applications including difficult samples or demanding gen DNA amplification, RT-PCR, or transfections

See also: Desalting/dialysis, electroelution

DNA/RNA labelling

Add Chloroform Sample RNA Extraction Reagent Centrifuge Phase Separation Transfer aqueous ph to a new turbe

Centrifuge

Wash Pellet

Solubilize the

RNA Precipitation

RNA Solubilization

& Wash

Nucleic acid purification kit (general use)

Total RNA Purification Kit

Pour la purification rapide de l'ARN total - y compris microARN - sans phénol

Isoler les ARN totaux, y compris siRNA et microARN

Enlever rapidement l'ADN génomique contaminant sans utilisation d'enzymes

Pas de phénol ou chloroforme extractions

Purifier l'ARN de haute qualité en 20 minutes

Extraire l'ARN à partir d'une seule cellule

Isoler à partir d'une grande variété d'échantillons

Total RNA Purification Kit

17200, 50 preps

37500, 100 preps



Inserer le log Norgen

Plasmid DNA Preparation

DNA-spin[™] Plasmid DNA Mini-prep

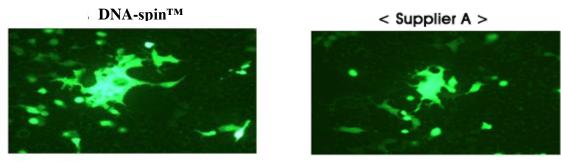
DNA-spinTM Plasmid DNA Purification Kit provides a fast, efficient means of preparing high purity plasmid DNA without specialized devices or equipment. This kit contains a spin-type column filled with silica bead membrane and reagents optimizing alkali lysis for easy purification of plasmid DNA from bacteria. The specially treated silica bead membrane makes it easy to harvest high quality plasmid DNA by eliminating RNA and genomic DNA during the quick spin-down process. The plasmid DNA is free from protein, chromosomal DNA, RNA contaminants, and can be used directly in experiment.

Characterisitics

- Takes only 30 minutes to extract plasmid DNA
- Optimized silica bead membrane allows recovery of highly purified plasmid DNA

- Minimal nicking of plasmid DNA guarantees accurate results in plasmid DNA sequencing
- Optimal culture volume: 3-5 ml at OD₆₀₀ of 1-1,5

Applications: PCR, Cloning, Sequencing, in vitro transcription, Translation, and etc



Comparison of transfection result

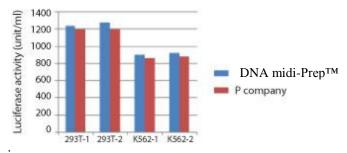
DNA-spin[™] Plasmid DNA Extraction Kit

MP2710 MP2711 50 columns 250 columns

Contents: Resuspension buffer, Lysis buffer, Neutralization buffer, Washing buffers A & B, Elution buffer, DNA-spin column, Collecting tube, RNase solution

DNA-midiTM SV Plasmid DNA Purification Kit

DNA-midiTM SV Plasmid DNA Purification Kit provides easy and rapid method for the midi scale preparation of plasmid DNA from bacterial cells. This kit can be used to isolate and purify any plasmid, also can isolated maximum 40 kb size plasmid DNA. The plasmid DNA is free from protein, genomic DNA, and RNA contaminants. This pure plasmid DNA is ready for PCR, cloning, automated or manual sequencing, transfection, synthesis of labeled hybridization probes, electroporation, and enzymatic restriction analysis.



Transfection & Luciferase assay in K-562 and 293T

Characterisitics

- * Easy to use organic extraction or ethanol precipitation is no required.
- * No phenol or chloroform is used.
- * Spend only 30 min (vacuum protocol), 50 ~ 60 min (spin protocol) to extract plasmid DNA
- Cell lysates remove easily with Pre Column. After mixing with M3 Buffer, the cellular debris and precipitates should be removed completely not to clog Binding Column in subsequent binding. Pre Column facilitates the clearance of the lysate by filtration instead of laborious incubation on ice and centrifugation which has been used widely in traditional methods.
- * Plasmid DNA binds selectively to silica membrane.
- This column system applies spin and vacuum protocol.
- Volume of bacterial cultures: 30 ~ 50 ml for high copy number plasmid, up to 100 ml for low copy number plasmid.

DNA-midiTM SV Plasmid DNA Purification Kit MP2690 25 columns
Contents: Resuspension buffer, Lysis buffer, Neutralization buffer, Washing buffers A & B, Elution buffer, RNase A solution, Pre column, Binding column

Contents. Resuspension burier, Lysis burier, Neutralization burier, Washing buriers A & B, Elution burier, Masse A solution, File Column, Dilitating Co.

DNA-midiTM Plasmid DNA Extraction Kit

This DNA-midiTM kit is adjustable for midi scale (midi protocol). However, you can extract massively plasmid DNA by using an additional protocol (maxi protocol). For the midi protocol, the expected yields are $75 \sim 150 \mu g$ for high-copy plasmids and $25 \sim 150 \mu g$ for low-copy plasmids. For the maxi protocol, the expected yields are $300 \sim 600 \mu g$ for high-copy plasmids and $100 \sim 600 \mu g$ for low-copy plasmids.

1) Saving your time(just 50-60min)

Characteristics

- 2) No problem for both endA+ & endA-E.coli strain
- 3) No alcohol Precipitation
- 4) No Phenol/Chloroform Extractions
- 5) No Slow Gravity Column like company Q

High-copy plasmid (DNA yields)	25 ml ~ (75 ~ 150μg)	50 ml ~ (150 ~ 300μg)	75 ml ~ (225 ~ 450μg)	~ 100 ml (300 ~ 600µg)
Low-copy plasmid (DNA yields)	100 ml ~ (25 ~ 150μg)	200 ml ~ (50 ~ 300μg)	300 ml ~ (75 ~ 450μg)	~ 400 ml (100 ~ 600μg)
Used midi-Bead	500μℓ	1.0 ml	1.5 ml	2.0 ml
Used filter column	One filter col.	Two filter col.	Three filter col.	Four filter col.
Protocol	Midi protocol	Additional protocol (maxi protocol)		

Applications: Sequencing, transfection, in vitro Transcription/Translation

DNA-midi[™] Plasmid DNA Extraction Kit MP2700 50 columns

Contains: 3 buffers, RNase A solution, midi-Bead sol., 2 washing buffers, Elution buffer, Filter columns, Collection tubes

DNA-maxiTM SV Plasmid DNA Purification Kit

DNA-maxiTM SV Plasmid DNA Purification Kit provides easy and rapid method for the maxi scale preparation of plasmid DNA from bacterial cells. This kit can be used to isolate and purify any plasmid, also can isolated maximum 40 kb size plasmid DNA. The plasmid DNA is free from protein, genomic DNA, and RNA contaminants. This pure plasmid DNA is ready for PCR, cloning, automated or manual sequencing, transfection, synthesis of labeled hybridization probes, electroporation, and enzymatic restriction analysis.

Characteristics:

- **Easy to use** organic extraction or ethanol precipitation is no required.
- **Safe:** No phenol or chloroform is used.
- rapid: Spend only 30 min (vacuum protocol), 80 ~ 90 min (spin protocol) to extract plasmid DNA
- Cell lysates remove easily with Pre Column.
 - After mixing with M3 Buffer, the cellular debris and precipitates should be removed completely not to clog Binding Column in subsequent binding. Pre Column facilitates the clearance of the lysate by filtration instead of laborious incubation on ice and centrifugation which has been used widely in traditional methods.
- Plasmid DNA binds selectively to silica membrane.
- This column system applies spin and vacuum protocol.
- Volume of bacterial cultures: 100 ~ 150 ml for high copy number plasmid, up to 300 ~ 400 ml for low copy number plasmid.

Yield & purity of various size plasmid DNA isolated from DH5α

No.	Sample (Size)	Conc.(ng/µl)	Yield (μg)	A _{260/260}
1	p UC 18 (2.9 Kb)	135.01	270	1.82
2	pTA (7.1 Kb)	127.66	255.3	1.78
3	pCEP4 (10.5 Kb)	125.35	250.7	1.88
4	p Ad EASY-1 (33.2 Kb)	187.00	274.0	1.78
5	pJM17 (40.2 Kb)	90.66	181 2	1.83

DNA-maxi[™] SV Plasmid DNA Purification Kit

MP2680

12 columns

Contents: Resuspension buffer, Lysis buffer, Neutralization buffer, Washing buffers A & B, Elution buffer, RNase A solution, Pre column, Binding column

PCR, agarose and probes clean-up

PCRquick-spin[™] PCR Product Purification Kit

The PCRquick-spin[™] Kit procedure uses silica-membrane technology to remove nucleotides, dNTPs, enzymes, primers, mineral oil, salts, ethidium bromide, dyes, detergents and other impurities from PCR reactions quickly and efficiently. The PCRquick-spin products contain silica-gel membrane binding of up to 15ug DNA in high-salt buffer and eluting the DNA in low-salt buffer.



The system uses a simple bind-wash-elute procedure. PCR reaction samples are mixed with the appropriate binding buffer and then applied to the PCRquick-spin column where DNA binds to the silica-gel membrane. Impurities are washed away, and pure DNA is eluted in a small volume of the low-salt elution buffer provided or water, ready for use in any subsequent application.

Characteristics

Takes only 15 minutes to extract DNA fragment

Minimize DNA loss: recovers DNA fragment without solvent extraction, precipitation, or other steps that can lead to loss or degradation of DNA.

Table 2 the amount of DNA

High yield and excellent quality PCR product volume: 20-50 µl

Applications: Sequencing, cloning, ligation, probe labeling ligation, random primed labeling, nick translation etc.

% Recovery of DNA from the different fragment length & amount of DNA

Table 1. the different fragment length

Fragment length	% Recovery
50bp - 200bp	80%
200bp - 4Kb	95%
4Kb - 10Kb	90%
> 10 Kb	75%

Table 2: the amount of Bivit	
Amount of DNA	% Recovery
5 - 10ug	80%
10 - 30ug	95%
> 30ug	75%

PCRquick-spin[™] PCR Product Purification Kit AP3879, 50 tests Contents: Binding buffer, Washing buffer, Elution buffer, columns, Collection tubes

AP387A, 250 tests

MEGA-spin[™] Agarose Gel Extraction Kit

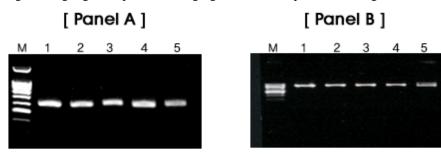
DNA fragments for probe DNA or ligation must be separated and purified from other DNA fragments. MEGA-spinTM employs a column method to purify target DNA in excised agarose gel. The column method uses a highly concentrated salt solution to keep the target DNA bound to the column membrane. The binding reaction occurs due to the disruption of the organized structure of water molecules and the interaction with the nucleic acids. Thus the adsorption to the specifically pretreated membrane is favored. Since the binding process is specific for nucleic acids, the bound material can be separated and purified from impurities e.g. salts and proteins, with simple washing step. Nucleic acids elute from the column membrane in a low salt buffer or water.

MEGA-spinTM is designed to extract and purify DNA of 100bp to 10kb from standard or low-melt agarose gels in TAE or TBE buffer. Furthermore, the kit guarantees a high yield of purification up to 70-90%. DNA fragments isolated with MEGA-spinTM Agarose Gel Extraction Kit are efficiently ligated into plasmid cloning vectors or specifically labeled using either random primed labeling or nick translation. No inhibition of digestion with restriction endonucleases is observed.

Characteristics

- Extract and purify DNA of 100bp to 10kb from all types of agarose gel
- Recovery between 70 and 90%
- Spin column technology to recover DNA from excised agarose bands
- Efficient for small amounts of DNA: 300-500 ng of DNA

Applications: Sequencing, cloning, ligation, probe labeling ligation, random primed labeling, nick translation and etc.



Comparison of different supplier's products

The DNA fragments (4.5Kb and 1.3Kb) were extracted from gels using kits from different suppliers. 1.3Kb DNA fragment; 4.5 Kb DNA fragment Lane M, Marker DNA; Lane 1, MEGA-spin Kit; Lane 2, Supplier A; Lane 3, Supplier B; Lane 4, Supplier C; Lane 5, Supplier D

MEGA-spin[™] Agarose Gel Extraction Kit

BZ4810, 50 tests

BZ4811, 250 tests

 $Contents: Agarose\ lysis\ buffer,\ Washing\ buffer,\ Elution\ buffer,\ columns\ with\ membrane,\ Collection\ tubes\ for\ 2\ mlayers$



MEGAquick-spin™ PCR & Agarose Gel DNA Extraction Kit

The MEGAquick-spin[™] PCR & Agarose Gel DNA Extraction Kit is designed to recover or concentrate DNA fragments (87 bp~20 kb) from agarose gels, PCR or other enzymatic reactions. Up to 95% recovery is achieved depending upon the fragment size. PCR products are commonly purified to remove excess nucleotides and primers.

Fig.: The bar-graph shows the recovery of DNA fragment. The values of yield was estimated with TINA2.0 software.

Before : Before purification

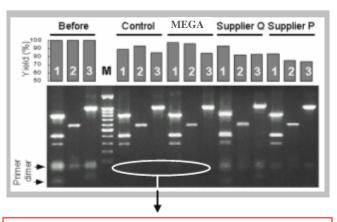
Control : PCRquick-spin TM PCR Product Purification Kit MEGAquick-spin TM PCR & Agarose Gel DNA Extraction System

Supplier Q and P: Q and P company products Lane M. 100 bp Ladder molecular weight DNA marker

Lane 1. Multiplex PCR purification

Lane 2. 570 bp DNA fragment purification

Lane 3. 1.0 kb DNA fragment purification



Primer removal efficiency is the better than other brands.

Characteristics

- Allows purification directly from PCR reactions or agarose gel slices
- Purify DNA fragments or PCR products in as little as 20 minutes.
- Up to 95% recovery of ready-to-use DNA.
- Purify DNA fragments (87 bp~20 kb).
- Purified DNA fragments are ready to use for PCR, sequencing, restriction digestion
- Maximum volume: 800 μl Maximum capacity: 40 μg

MEGAquick-spin™ PCR & Agarose Gel DNA Extraction Kit

S5432A, 50 tests

S5432B, 250 tests

Contents: Agarose gel lysis & DNA binding buffer, Washing buffer, Elution buffer, columns with silica membrane, 2 ml collection tubes

MonoFas® DNA Purification Kit I

A new method for purifying DNA by monolith technology

Based on Silica Monolith Technology MonoFas offers the advantage of large surface area for increased nucleic acid adsorption.

• Fast procedure and easy handling

DNA purification from PCR samples in 4 minutes. DNA purification from agarose gels in 9 minutes.

- 10uL minimal elution volume
- High sample capacity
- Clean up with high recoveries

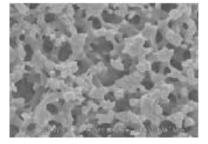
Efficient enzymes/primers removal ratio of 99.5%. Sodium-free eluent.

For PCR purification, 10 - 100uL can be applied.

For agarose gels, 1 g can be applied.

- DNA size range: 35bp 35 000bp
- This kit can be used for the DNA purification from both

PCR and an agarose gel extraction



MonoFas® DNA Purification Kit I

BN3314, 50 assays

BN3315, 100 assays

BN3316, 250 assays

MonoFas® DNA Purification technology is also available for blood and plasmid samples. Please ask for more details on thoses kits.

PROBERTM Probe DNA purifying system

PROBERTM Probe DNA purifying system is a disposable column, which removes unincorporated labeled nucleotides following end-labeling, probe labeling, or polymerization reaction with labeled nucleoti des. Prepacked column is useful for the purification of probe DNA for Southern hybridization, Northern hybridization, and in situ hybridization.

Characteristics:

- •Simple step: Only a few seconds of centrifugation will give you purified probe DNA.
- •Rapid reaction time : All step is performed in 30-60 seconds.
- •Comfortable column unit: The pre-packed PROBERTM column format allows easy preparation of probe DNA.
- •High purity: The kit produces high quality DNA
- Column maximum volume: 1 ml

PROBER™ Probe DNA purifying system Contents: 100 columns to be placed in 1,5 ml tube

BM9170

100 columns



Electroelution from gels

Please see 'GebaFlex' products in chapter B = Proteomics, that are efficient tools to recover nucleic acids from electrophoresis gels. Great applications are :

- recovery of large DNA fragments 10kB-200kb

HAND OFF WITH TEDIOUS DNAs

For >10kb DNAs, the bead technology purifications dont work properly. GebaFlex method offers a superior method to conventional elution that operates by diffusion overnight from agarose pieces. GebaFlex procedure takes only 15minutes, and nucleic acids can be directly desalted, or purified by beads technology, for any downstream applications. To get i.e. 4 OD of DNA, you need much less (up 2 fold less) starting DNA because yield ranges 80 to 90% (see figure).

Large DNA fragment Electro Elution method with GeBAflex-tube

- recovery of complexes (RNA-protein, DNA-protein): >60% recovery, <2h process
- recovery of small DNA (oligos): 90% recovery, minimum size of oligo 15 nt DON'T GO TO HPLC!
 - GebaFlex offers an excellent alternative method to HPLC purification of oligonucleotides (cheap, and too time consuming and low yield diffusion elutions. Scale up is easier then with HPLC

- recovery of RNA: intact with >60% recovery

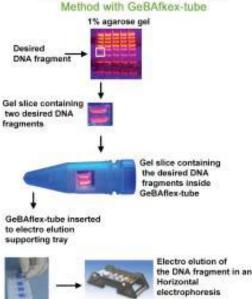
Compared with:

HPLC purification of oligonucleotides diffusion elutions

GebaFlex method has following advantages:

cheaper, no development, scale up is more easy much higher yield, quicker

GebaFlex offers an excellent alternative method to HPLC purification of oligonucleotides (cheaper, scalable), and to time consuming and low yield diffusion elutions.



Large DNA fragment Electro Elution



G-DEXTM IIc Genomic DNA Extraction Kit (For Cell/Tissue)

G-DEXTM IIc Genomic DNA Extraction Kit (for cell/tissue) is a rapid and efficient method for isolation of high molecular weight genomic DNA from Gram(-) bacteria, yeast, animal cells and tissues of all types. For the most samples, it takes just 5 steps and less than 1 hour. All samples can yiels high-quality DNA. Also, sample sizes can range from a single cell to 1 gram of tissue. It is suitable for PCR, DNA hybridization, genomic DNA library construction, or other applications.

Characteristics:

- Sample size: 1-2 x 10⁶ cells
- Variety: extract from a wide range of biological samples
- Rapid isolation of genomic DNA: 20-60 min.
- Easy-to-use: Lysis \rightarrow Protein remove \rightarrow DNA pellet \rightarrow DNA hydration
- High Yield: Recovers up to 20 μg (1-2x10⁶ Cells), 35 μg (20mg Tissue)
- High Purity: DNA ratio $(OD_{260/280})=1,9-2,1$ (free from contaminants)



G-DEX™ IIc Genomic DNA Extraction Kit (For Cell/Tissue)

i-genomic CTB DNA Extraction Mini Kit

i-genomic CTB DNA Extraction Mini kit provides a fast and easy way to purify DNA from cultured animal cell, animal tissue, rodent tail, fixed tissue, animal hair, insect/worm, stool, bone, swab, and gram negative bacteria. Furthermore, we have tested i-genomic CTB DNA Mini Kit to get more practical data with 102 numbers of CTB samples.

Characteristics:

- Loading capacity: maximum 800 µl
- DNA binding capacity: maximum 45 µg

Stool

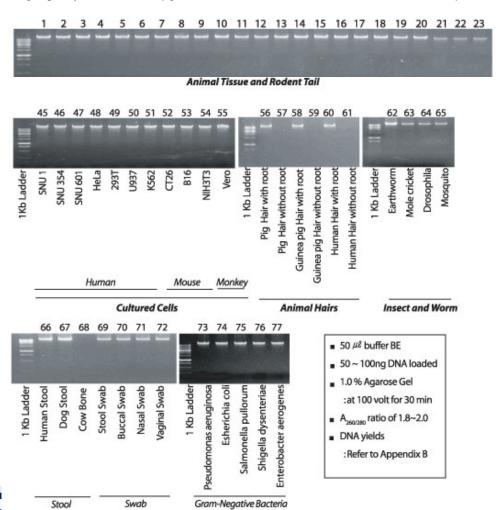
Swah

Recovery: 85-95% depending on the elution volume

(0) 4 70 03 82 60

e-maii interchim@interchim.com - web www.interchim.com

Elution volume: 30-200 µl of elution buffer



Contents: Lysis buffer, Binding buffer, Washing buffer, Elution buffer, Spin columns with silica membrane, 2 ml Collection tubes, RNAse A solution, Proteinase K solution

G-spinTM Genomic DNA Extraction Kit (Bacteria)

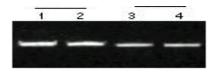
G-spin™ Genomic DNA Extraction Kit are designed for rapid isolation of genomic DNA from a variety of sample sources including fresh or frozen

animal cells/tissues (for Cell/Tissue) and Gram-negative & Gram-positive bacteria (for Bacteria), yeast (for Yeast), or bloods (for Blood). The purified DNA is free of contaminants and impurities and is ideal for all PCR, Southern blotting, RAPD, and sequencing applications.

G-spinTM kit uses advanced silica-gel membrane technology for rapid and efficient purification of genomic DNA without organic extraction or ethanol precipitation. Furthermore, G-spinTM buffer system is optimized to allow rapid and simple cell lysis followed by selective binding of DNA to the column. G-spinTM procedure is very simple, so you can purify DNA from a variety of target source within 20-40min.

Characteristics:

- Convenience: no ethanol precipitation step
- Rapid isolation of genomic DNA: max. 30 min.
- Application: almost all gram (+) and gram (-) bacteria
- Sample size: 1-2 ml of cells



Comparison of extracted genomic DNA G-spin $^{\text{TM}}$ Kit and other company's bits

Lane 1, 2: G-spin™ , Lane 3, 4: Supplier A Sample: Salmonella pullorum

G-spin™ Genomic DNA Extraction Kit (Bacteria)

MP2790

50 columns

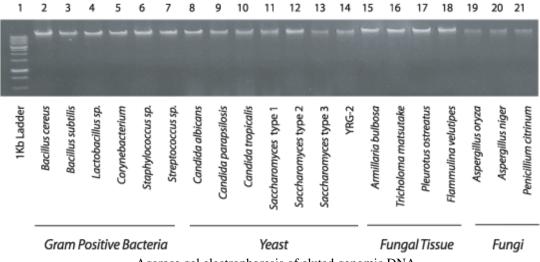
Contents: Pre-buffer, G-buffer, Binding buffer, Washing buffers A & B, Elution buffer, Columns with silica membrane, Collection tubes, Lysozyme solution, RNase A solution, Proteinase K solution

i-genomic BYF DNA Extraction Mini Kit (Bacteria, Yeast, Fungi)

i-genomic BYF DNA Extraction Mini Kit provides a fast and easy way to purify DNA from BYF samples such as various gram positive bacteria, yeast, fungal tissue and fungi. Furthermore, we have tested i-genomic BYF DNA Mini Kit to get more practical data with 23 BYF samples.

Characteristics:

- Loading capacity: maximum 800 μl
- DNA binding capacity: maximum 45 μg
- Recovery: 85-95% depending on the elution volume
- Elution volume: 30-200 μl
- Sample size: 1-5 ml of gram positive bacteria and yeast, 50-100 mg of fungal tissue and 2-3 pieces of 0,5 x 1 cm² of fungi grow plate



Agarose gel electrophoresis of eluted genomic DNA

i-genomic BYF DNA Extraction Mini Kit CH7680 50 columns

Contents: Yeast pre-lysis buffer, Pre-lysis buffer, Lysis buffer, Binding buffer, Washing buffer, Elution buffer, Spin columns with silica-based membrane, 2 ml Collection tubes, RNase A solution, Proteinase K solution, Lysozyme solution



i-genomic Plant DNA Extraction Mini Kit

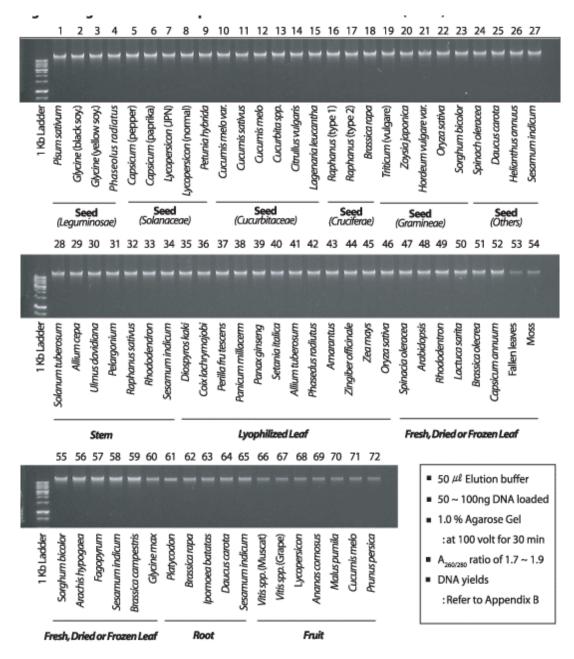
i-genomic Plant DNA Extraction Mini Kit provides a fast and easy way to purify DNA from plant-like samples such as various leaves, stems, roots, fruits, and seeds. Furthermore, we have tested i-genomic Plant DNA Mini Kit to get more practical data with 104 plant samples.

You can also extract genomic DNA from various plant samples in addition to 75 plant samples by selecting an appropriate protocol.

Characteristics:

- Loading capacity: maximum 800 μl
- DNA binding capacity: maximum 45 μg
- Recovery: 85-95% depending on the elution volume
- Elution volution: 30 200 μl

Agarose gel electrophoresis of eluted genomic DNA (1,0%)



i-genomic Plant DNA Extraction Mini Kit

CH7700

50 columns

Contents: Lysis buffer, Precipitation buffer, Binding buffer, Washing buffers A & B, Elution buffer, Binding enhancer buffer, Spin columns 2ml with silica membrane, Collection tubes, RNases A solution, Proteinase K solution

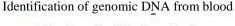


Blood DNA Preparation

G-spinTM Genomic DNA Extraction Kit (for Blood)

G-spinTM Genomic DNA Extraction Kits are designed for rapid isolation of genomic DNA from various sample sources including fresh or frozen animal cells/tissues (for Cell/Tissue) and bacteria (for Bacteria), yeasts (for Yeast), plant (for Plant) or bloods (for Blood). The purified DNA is free of contaminants and impurities, and is ideal for all PCR, Southern blotting, RAPD, and RFLP applications.

G-spinTM kits use advanced silica-gel-membrane technology for rapid and efficient purification of genomic DNA without organic extraction or ethanol precipitation. Furthermore, G-spinTM buffer system is optimized to allow rapid and simple cell lysis followed by selective binding of DNA to the column. G-spinTM Genomic DNA Extraction Kit can obtrain 35 ug per 1 ml of whole blood with an A260/280 of 1.7-2.0. Flexibility in amount of staring material, purification from 0.1-20 ml whole blood. Samples from 0.05 to 0.4 ml can be completed in 30 minutes or less. Recovery rates are 60 to 90%. For blood, 50 kb fragments are typical.





(M: 1kb ladder DNA, lane 1-6: blood samples)

50 columns

G-spin™ Genomic DNA Extraction Kit (for Blood) MP2780

Contents: Lysis buffer, G buffer, Binding buffer, Washing buffer, Elution buffer, G-spin™ columns with silica membrane, 2 ml Collection tubes, RNase A, Proteinase K

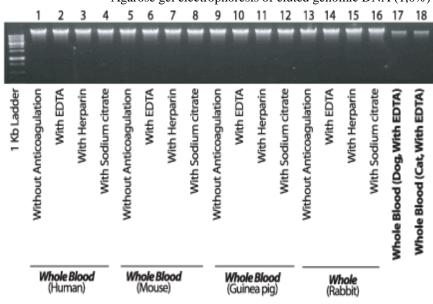
i-genomic Blood DNA Extraction Mini Kit

I-genomic Blood DNA Extraction Mini Kit provides a fast and easy way to purify DNA from blood-like samples such as various whole blood, buffy coat, plasma, serum, dried blood spot, and blood swab. Furthermore, we have tested i-genomic Blood DNA Mini Kit to get more practical data with 24 blood samples.

Characterisitics:

- Sample size: 200 µl of liquid sample and 1-3 ea of dried spot or swab sample
- Up to over 40 kb
- Loading capacity: maximum 800 μl
- DNA binding capacity: maximum 45 μg
- Recovery: 85-95% depending on the elution volume
- Elution volume: 30-200 μl
- High purity: $A_{260/280}$ raion of 1,8-2,0

Agarose gel electrophoresis of eluted genomic DNA (1,0%)



i-genomic Blood DNA Extraction Mini Kit CH7670 50 columns

ontents: Lysis buffer, Binding buffer, Washing buffers A & B, Elution buffer, Spin columns with silica membrane, Collection tubes, RNase A solution, Proteinase K solution



Already prepared DNA Human Genomic DNA

Human Genomic DNA is obtained from 293 cells. More than 90% of the DNA molecules provided are larger than 50 kb in size as measured by gel electrophoresis by ethidium bromide staining. Human Genomic DNA can be used for gene amplification, gene analysis and similar applications. Concentration: 120 ng/ul in 10 mM Tris-HCl (pH8.0), 1 mM EDTA

Human Genomic DNA

DU1840, 100 µg

Genomic DNA and Total RNA

Genomic DNA and total RNA are prepared by superior extraction kits from the following cell lines. The genomic DNA has an average >40 Kb in molecular weight. The total RNA has distinguished 18S and 28S bands indicating a high quality of RNA.

Cell lines available: B-958, Raji, C-33A, Caski, Hela, Hela S3, Siha, HUT 102, CCRF-CEM, HL-60, Jurkat, K562, KG-1, BeWo, BT-474, MCF 7, HT 1080, Fc2Lu, P388D1. Custom services for other cell lines are also available. Each package contains 100 µg of genomic DNA or 100 µg total RNA.

RNA preparation

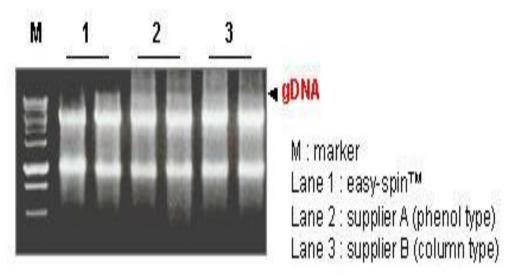
Cells & Tissues RNA preparation

easy-spinTM Total RNA Extraction Kit

easy-spinTM Total RNA Extraction Kit combines the advantages of solution type products and column type ones, removing the inconveniency of alcohol PPT process in solution type products and enabling the extraction of total RNA within 30 minutes without genomic DNA.

Characteristics:

- No genomic DNA contamination
- No alcohol PPT process
- Extraction time: <30 minutes
- Sample size: 50-100 mg of tissue, 10⁶ cells in 1,5 ml tube



Total RNA from various kits

easy-spin[™] Total RNA Extraction Kit Contents: Lysis buffer, Binding buffer, Washig buffer A & B, Elution buffer, Columns, 2M Collection tube

CA6170, 50 columns

CA6171, 100 columns

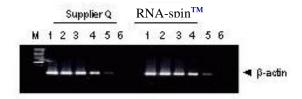
CA6172, 200 columns



RNA-spinTM Total RNA Extraction Kit

- Variety: extract from animal cells, tissues, bacteria
- Rapid isolation of total RNA: <30 minutes, including a lysis step
- High yield: 90-95% RNA recovery
- Applications: RT-PCR, Northern blotting, Primer extension, cDNA synthesis.
- Sample size: animal cells ($< 10^7$ cells, tissues (< 30 mg), bacteria ($< 10^9$ cells)
- RNA binding capacity: <100µl
 Throughput: 1-24 samples
 Elution volume: 30-100 µl

Result of RT-PCR with β-actin gene using One-Step RT-PCR PreMix Kit



Total RNA Extraction Kit

CE2590

50 columns

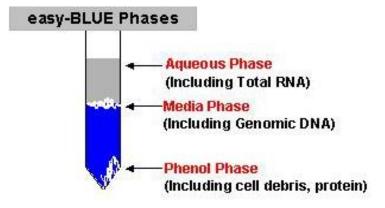
Contents: R buffer, Washing bufferA & B, Elution buffer, columns with silica membrane, 2 ml Collection tubes

easy-BLUETM Total RNA Extraction Kit

There is about $1\text{-}2x10^{-5}~\mu g$ of RNA per mammalian cell and we can theoretically obtain about $10\text{-}20~\mu g$ of RNA by extracting $1x10^6$ cells. easy-BLUE can makes RNA extraction rate nearing the theoretical number a reality. It has a clear advantage in dissolving RNA because it can obtain highly pure degree of RNA in contrast to the usual mal-dissolution problem due to a post-PPT contamination of protein, which is far too frequent in a RNA extraction.

Advantages:

- Very vivid color between aqueous phase and phenol phase
- Stable > 3 years



easy-BLUE™ Total RNA Extraction Kit

MP2810

100 ml

MP2811500 ml

easy-spinTM llp Plant RNA Extraction Kits

easy-spin[™] IIp Plant RNA Extraction Kit is recommended for use total RNA isolation as maxi-scale from plant tissues. One of the kit component contains high molecular polyethyleneglycol (HMW-PEG) that binds to contaminants such as polyphenolic compounds and polysaccharides that are commonly present in plant tissues.

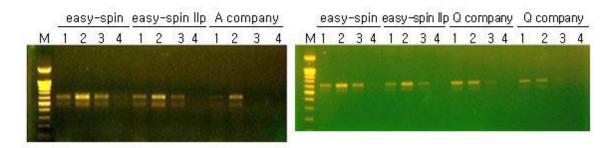
Glass fiber filter-based RNA isolation method, such as the easy-spinTM IIp Plant RNA Extraction Kit, are especially suited for plant RNA purification because they do not include any alcoholic precipitating steps; many kind of contaminants found in plant tissue are known to co-precipitate with nucleic acid during alcohol precipitation. When use with the easy-spinTM IIp Plant RNA Extraction Kit, the procedure consists of disrupting the plant tissue in a guanidinium based solution to which the pre-lysis buffer has been added. A brief centrifugation then remove the polyphenolic and polysaccharide contaminants. The supernatant is passed through a glass-fiber filter under conditions that support RNA binding to glass filter. The filter is then washed to remove other contaminants and the RNA is recover in adequate volume (50 ~ 100 ul or more) of elution buffer.

Characteristics:

no genomic DNA contamination no alcohol PPT process

Recover a high quality of plant total RNA.

Sample size: 10-100 mg of tissue for Mini-prep, 1-2 g of tissue for Maxi-prep



Extract total RNA from CGMMV-infected seed, then test virus detection by RT-PCR

easy-spin IIP Plant RNA Extraction Kit (Mini-prep) MP2860 50 columns
easy-spin IIP Plant RNA Extraction Kit (Maxi-prep) MP2850 12 columns
Contents: Pre-lysis buffer, Lysis buffer, Binding buffer, Washing buffer A& B, Elution buffer, Pre spin column, Binding spin column, Collection tub

Related products lines

Electrophoresis reagents

Information inquire					
Reply by Fax :	+33 (0) 4 70 03 82	60 or email at interbiotec	h@interchim.com		
☐ I wish to rec	cieve the complete	documentation about:			
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