# Cica Geneus® Purification Kit Series



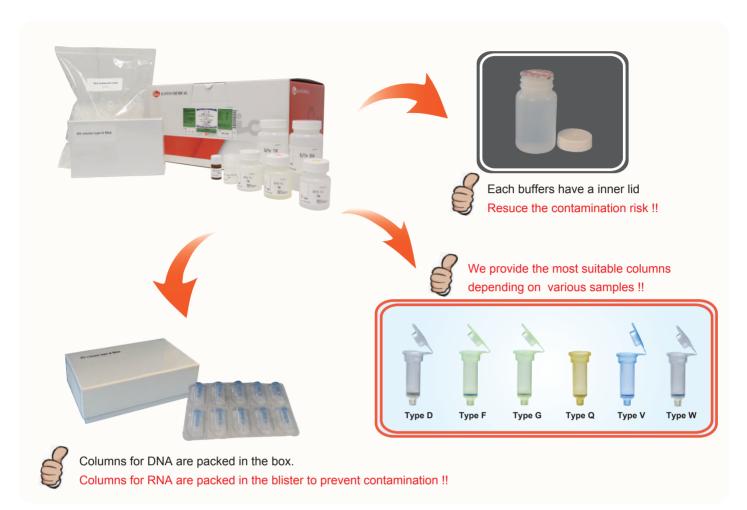


### Product Information

Product No.	Product Name	Stored at	Size
08197-96	Cica Geneus® DNA Prep Kit (for Blood & Tissue)	RT	100 preps
08204-96	Cian Canaua® Total DNA Dran Kit (for Tiggue)	DT	100 preps
08204-97	Cica Geneus® Total DNA Prep Kit (for Tissue)	RT	250 preps
08202-96	Cica Geneus® DNA Prep Kit (for Plant)	RT	100 preps
08203-96	Cica Geneus® DNA Prep Kit (for Stool)	RT	50 preps
08207-96		RT	50 preps
08207-97	Cica Geneus® Plasmid Prep Kit		200 preps
08206-96	Cica Geneus® PCR Prep Kit	RT	50 preps
08208-96	Cica Geneus® Gel Prep Kit	RT	50 preps
08111-96	Oine Ongress® DOD 9 Cal Draw Kit	RT	50 preps
08111-97	Cica Geneus® PCR & Gel Prep Kit		200 preps
08215-96	Cica Geneus® DNA/RNA Prep Kit (for Virus)	2~8℃	50 preps
08057-96	Cica Geneus® RNA Prep Kit (for Tissue)	RT	50 preps
08058-96	Cica Geneus® RNA Prep Kit (for Plant)	RT	50 preps



# Cica Geneus® Purification Kit Appearance



Product Name	Binding capacity	Minimum elution volume	Yield/Recovery	Operation time
Cica Geneus <sup>®</sup> DNA Prep Kit (for Blood & Tissue)	60 µg	30 µL	20~60 μg	25~220 min
Cica Geneus <sup>®</sup> Total DNA Prep Kit (for Tissue)	50 μg	30 µL	5~50 μg	25~220 min
Cica Geneus <sup>®</sup> DNA Prep Kit (for Plant)	40 µg	30 μL	4~40 μg	~40 min
Cica Geneus <sup>®</sup> DNA Prep Kit (for Stool)	100 μg	30 μL	5~100 μg	~25 min
Cica Geneus <sup>®</sup> Plasmid Prep Kit	30 µg	40 μL	85~95%	~23 min
Cica Geneus® PCR & Gel Prep Kit or PCR Prep Kit	10 μg	30 µL	90~95% (100 bp~10 kb)	~5 min
Cica Geneus® PCR & Gel Prep Kit or Gel Prep Kit	10 μg	30 µL	70~85% (80 bp~10 kb)	~15 min
Cica Geneus® DNA/RNA Prep Kit (for Virus)	100 μg	30 µL	_	~20 min
Cica Geneus® RNA Prep Kit (for Tissue)	100 µg	40 μL	~20 µg (cell) ~50 µg (Tisuue)	~15 min
Cica Geneus® RNA Prep Kit (for Plant)	100 µg	30 µL	~50 µg	~25 min

# Cica Geneus<sup>®</sup> Purification Kit Selection Guide

### Meaning of the icons



Animal Tissue/Mouse tail



Mammalllian whole blood



Callus



PCR products



Cultured cells



Insect / Worm



Fungi



Agarose gel



Gram(+) bacteria



Buccal swab/Buffy coat/ Hair/Body fluid/Saliva/ Sperm



Stool



Cultured cells/Plasma/ Serum/swab/Urine



Gram(-) bacteria



Plant cells/Plant tissue



Escherichia coli

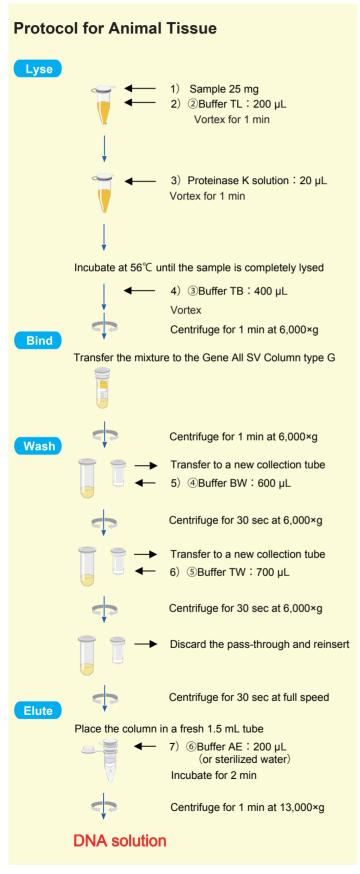
### **Selection Guide**

Type of the	e nucleic acid	San	nple	Recommended product
DNA Genome	Whole blood Insect/Worm Mouse tail	Animal tissue Cultured cells Gram(-) bacteria	Cica Geneus® DNA Prep Kit (for Blood & Tissue)	
		Animal tissue Cultured cell Gram(+) bacteria Gram(-) bacteria Whole blood Buccal swab Streptococcus p	Saliva Spem Mouse tail	Cica Geneus® Total DNA Prep Kit (for Tissue)
		Plant cells Plant tissue	Callus Fungi	Cica Geneus® DNA Prep Kit (for Plant)
		Stool		Cica Geneus® DNA Prep Kit (for Stool)
	Plasmid	Escherichia coli		Cica Geneus® Plasmid Prep Kit
	Fragment DNA	PCR products		Cica Geneus® PCR & Gel Prep Kit or PCR Prep Kit
		Agarose gel		Cica Geneus® PCR & Gel Prep Kit or Gel Prep Kit
DNA/RNA	Viral nucleic acid	Cultured cells Plasma Serum	Swab Urine	Cica Geneus® DNA/RNA Prep Kit (for Virus)
RNA	total RNA	Animal tissue Cultured cells Whole blood cel	Bacteria I	Cica Geneus® RNA Prep Kit (for Tissue)
		Plant cells Plant tissue		Cica Geneus® RNA Prep Kit (for Plant)



# Cica Geneus® DNA Prep Kit (for Blood & Tissue)

Product No.	Size
08197-96	100 preps



Cica Geneus® DNA Prep Kit (for Blood & Tissue) provides a simple and rapid method for the isolation of totalDNA from animal tissues, whole blood, and cultured cells. The pure DNA can be acquired and this can be directly used in various applications such as PCR, Southern blotting and other enzymatic reactions.

### **Specifications**

Sample size	Liquid:300 μL Solid: 25 mg
Maximum loading volume	750 μL
Binding capacity	60 µg
Elution volume	30~400 µL

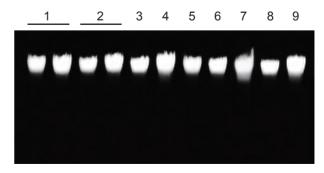
#### **Kit Contents**

Contents name	size
GeneAll SV Column Type G (with collection tube)	50 ×2
Collection tube	100 ×2
①Buffer RL	100 mL×1
②Buffer TL	30 mL×1
③Buffer TB	50 mL×1
④Buffer BW	80 mL×1
⑤Buffer TW	100 mL×1
6Buffer AE	30 mL×1
⑦Proteinase K	48 mg×1
®Storage Buffer	4 mL×1

### **DNA Purification from various samples**

DNA prepared from several kind of animal tissue using Cica Geneus® DNA Prep Kit (for Blood & Tissue). Elution was performed with 100  $\mu$ L of 6Buffer AE.

 $8~\mu L$  of luates was resolved on 0.8 % agarose gel.



Lane 1: Liver (rat)
Lane 2: Kidney (rat)
Lane 3: Brain (rat)
Lane 4: Spleen (rat)

Lane 5 : Lung (rat)
Lane 6 : Heart (rat)
Lane 7 : NIH/3T3 cell
Lane 8 : Blood (bovine)

Lane 9: Liver (bovine)



### Cica Geneus<sup>®</sup> Total DNA Prep Kit (for Tissue)

Product No.	Size
08204-96	100 preps
08204-97	250 preps

#### Related reagent

Product No.	Product Name	Size
14032-08	Ethanol (99.5)	500 mL

### **Protocol for Cultured Cell**

Lyse



1) Proteinase K solution: 20 µL

2) Sample: 200 μL

3) ②Buffer BL: 200 µL

Vortex

Incubate at 56°C until the sample is completely lysed



4) Ethanol: 200 µL (not provided)

Vortex Spin down

Bind

Transfer the mixture to the Gene All SV Column type G



Wash



Centrifuge for 1 min at 6,000×g



Transfer to a new collection tube



5) 3Buffer BW: 600 μL



Centrifuge for 30 sec at 6,000×g



Transfer to a new collection tube



6) ④Buffer TW: 700 μL



Centrifuge for 1 min at 6,000×g



Discard the pass-through and reinsert

Elute



Centrifuge for 30 sec at full speed

Place the column in a fresh 1.5 mL tube



7) 5 Buffer AE: 200 µL (or sterilized water) Incubate for 1 min



Centrifuge for 1 min at 13,000×g

**DNA** solution

Cica Geneus® Total DNA Prep Kit (for Tissue) provides an easy and rapid method for the isolation of total DNA such as genomic, mitochondrial, bacterial, parasite or viral DNA from various samples including tissues, whole blood, cultured cells, and body fluids. The purified DNA is suitable for PCR, Southern blotting other enzymatic reactions, and etc.

### **Specifications**

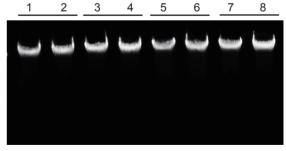
Sample size	Liquid:200 μL Solid: 20 mg
Maximum loading volume	700 µL
Binding capacity	50 µg
Elution volume	30~400 µL

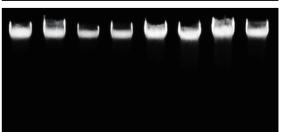
#### **Kit Contents**

Contents name		Size
Contents name	100 preps	250 preps
GeneAll SV Column Type G (with collection tube)	50×2	50×5
Collection tube	100×2	250×2
①Buffer CL	25 mL×1	60 mL×1
②Buffer BL	25 mL×1	60 mL×1
③Buffer BW	80 mL×1	220 mL×1
4Buffer TW	100 mL×1	250 mL×1
⑤Buffer AE	30 mL×1	60 mL×1
⑥Proteinase K	48 mg×1	120 mg×1
⑦Storage Buffer	4 mL×1	7 mL×1

### **DNA purification from Whole blood**

DNA purified from whole blood using Cica Geneus® Total DNA Prep Kit (for Tissue) was resolved on 0.8 % agarose gel.





Lane 1,2: Upper human blood A Lower Lane 3,4: Upper human blood B Lower rat blood B Lane 5,6: Upper human blood C Lower rat blood C Lane 7,8: Upper human blood D Lower rat blood D







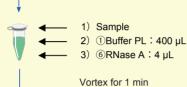
# Cica Geneus® DNA Prep Kit (for Plant)

Product No.	Size
08202-96	100 preps

#### **Protocol for Plant tissue**



Grind fresh (~100 mg) or frozen plant tissue(~25 mg) to a fine powder quickly and completely, using a mortar and pestle pre-cooled with liquid nitrogen



Incubate at 65°C for 10 ~ 15 min \*Mix 2 ~ 3 times by inverting



4) ②Buffer PD: 140 μL

Incubate for 5 min on ice



Transfer the mixture to the EzSep filter



Centrifuge for 2 min at 14,000×g



5) Transfer to a new collection tube



6) 3Buffer BD: 1.5 vol of 5)

Bind



Transfer the mixture to

the Gene All SV Column type G



Centrifuge for 30 sec at 10,000×g





Discard the pass-through and reinsert 7) ④Buffer CW: 700 μL



Centrifuge for 30 sec at 10,000×g

Centrifuge for 2 min at 10,000×g



ろ液を捨てカラムを再セット 8) 4 Buffer CW: 700 μL



Elute

Place the column in a fresh 1.5 mL tube

9) ⑤Buffer AE: 200 μL Incubate for 5 min



Centrifuge for 1 min at 10,000×g

**DNA** solution

Cica Geneus® DNA Prep Kit (for Plant) provides an easy and rapid method for the isolation of total DNA from various Plant. With EzSep filter and Column typeG, the procedure can be done in just 40 minites (mini). The purified DNA is suitable for PCR, Southern blotting other enzymatic reactions, and etc.

### **Specifications**

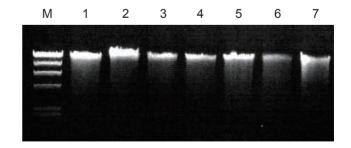
Sample size	Wet:100 mg Dry: 25 mg
Maximum loading volume	750 µL
Binding capacity	40 µg
Elution volume	30~400 µL

#### Kit Contents

Contents name	Size
GeneAll SV Column Type G (with collection tube)	50×2
EzSep filter (with collection tube)	50×2
①Buffer PL	100 mL×1
②Buffer PD	30 mL×1
③Buffer BD	110 mL×1
4)Buffer CW	150 mL×1
⑤Buffer AE	60 mL×1
⑥RNase A (100 mg/ml)	480 μL×1

#### **DNA Purification from various samples**

DNA was purified from each 100 mg of various samples Cica Geneus® DNA Prep Kit (for Plant). Elution was performed with 100  $\mu$ L of ⑤Buffer AE. 5  $\mu$ L of luates was resolved on 0.8 % agarose gel.



M: Ladder

Lane 1: Pine Lane 2: Tabacco Lane 3: Barely

Lane 5: Cayenne Lane 6: Arabidopsis Lane 7: Potato

Lane 4: Cycad



## Cica Geneus® DNA Prep Kit (for Stool)

Product No.	Size
08203-96	50 preps

### **Protocol for Stool** 2.0 mL tube Lyse 1) Sample : ~200 mg 2) ①Buffer PBS: 1 mL Vortex for 1 min Incubate for 30 sec Transfer the supernatant to a new 2.0 mL tube Centrifuge for 2 min at full speed 3) Discard the supernatant 4) ②Buffer FL: 1.3 mL Resuspend the pellet by pipetting Incubate for 5 min Centrifuge for 5 min at 10,000×g Transfer the mixture to Gene All EzPass filter Centrifuge for 1 min at 10,000×g Transfer the Gene All EzPass filter to the new 1.5 mL tube 5) 3Buffer EB : 100 μL Incubate for 1 min Centrifuge for 1 min at 10,000×g 6) ④Buffer PB: 500 μL Resuspend the pellet by pipetting Bind Transfer the mixture to Gene All SV Column type G Centrifuge for 1 min at 10,000×g Wash Discard the pass-through and reinsert 7) ⑤Buffer NW: 500 μL Centrifuge for 1 min at 10,000×g Discard the pass-through and reinsert Centrifuge for 1 min at 10,000×g Elute Place the column in a fresh 1.5 mL tube 8) ③Buffer EB: 50 μL Incubate for 1 min Centrifuge for 1 min at 10,000×g **DNA** solution

Cica Geneus® DNA Prep Kit (for Stool) provides an easy and rapid method for the isolation of DNA from stool samples. The purified DNA is suitable for PCR, Southern blotting other enzymatic reactions, and etc.

### **Specifications**

Sample size	200 mg (Stool)
Maximum loading volume	700 μL
Binding capacity	100 µg
Elution volume	30~200 µL

#### **Kit Contents**

Contents name	Size
GeneAll SV Column Type G (with collection tube)	50 ×1
GeneAll EzPass filter (with collection tube)	50 ×1
1.5 ml tube	50 ×2
2.0 ml tube	50 ×2
①Buffer PBS	60 mL×1
②Buffer FL	70 mL×1
③Buffer EB	15 mL×1
4Buffer PB	30 mL×1
⑤Buffer NW	30 mL×1

### **DNA purification from Chicken stool**

DNA was purified from Chicken stool, using Cica Geneus® DNA Prep Kit (for Stool). Elution was performed with 50  $\mu$ L of 3Buffer EB. 3  $\mu$ L of luates was resolved on 1.0 % agarose gel.



Lane 1-4: Chicken stool

M: 1kb Ladder



# Cica Geneus<sup>®</sup> Plasmid Prep Kit

Product No.	Size
08207-96	50 preps
08207-97	200 preps

Protoco	ol	
Lyse	<b>—</b>	1) Sample(bacterial cultures):5 mL
		Centrifuge for 1 min at full speed
	<b>← ← ← ←</b>	2) ①Buffer S1: 250 μL Resuspend the pellet by pipetting 3) ②Buffer S2: 250 μL Mix 2 ~ 3 times by inverting 4) ③Buffer S3: 350 μL Mix 2 ~ 3 times by inverting
Bind	53	Centrifuge for 10 min at 10,000×g
Billu	Transfer	the supernatant to Gene All SV Column type Q
Wash	4	Centrifuge for 30 sec at 10,000×g
	<b> </b>	Discard the pass-through and reinsert 5) ④Buffer AW : 500 μL
		Centrifuge for 30 sec at 10,000×g
		Discard the pass-through and reinsert 6) $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
		Centrifuge for 30 sec at 10,000×g
		Discard the pass-through and reinsert
Elute		Centrifuge for 30 sec at 10,000×g
	Place the column i	n a fresh 1.5 mL tube
		7) ⑥Buffer EB:50 μL Incubate for 1 min
	¢ PNA TOTAL	Centrifuge for 1 min at 10,000×g
	DNA溶液	

Cica Geneus® Plasmid Prep Kit provides a convenient and rapid method for the isolation of plasmid DNA from bacterial cells. This kit eliminates the need of organic solvent extraction and alcohol precipitation, allowing rapid and convenient prification from many samples simultaneously. The purified DNA is suitable for PCR, cloning, automated sequencing, synthesis of labeled hybridization probes and other enzymatic reactions, and etc.

### **Specifications**

Sample size	~10 mL
Maximum loading volume	800 µL
Binding capacity	30 µg
Elution volume	40~200 μL

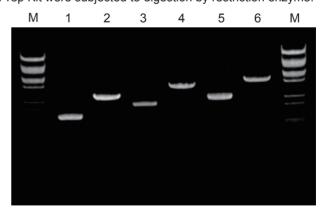
#### **Kit Contents**

		Size
Contents name	100 preps	200 preps
GeneAll SV Column Type Q (with collection tube)	50×1	50×4
①Buffer S1	20 mL×1	60 mL×1
②Buffer S2	20 mL×1	60 mL×1
③Buffer S3	25 mL×1	90 mL×1
4Buffer AW	30 mL×1	110 mL×1
⑤Buffer PW	60 mL×1	250 mL×1
⑥Buffer EB	15 mL×1	30 mL×1
⑦RNase A solution	100 μL×1	300 μL×1

 $<sup>*\</sup>mbox{Add}$  all of  $\ensuremath{{\mathbb C}}\mbox{RNase}$  A Solution to  $\ensuremath{{\mathbb C}}\mbox{Buffer S1}$  before first use.

### **Enzyme Digestion**

Several kinds of plasmid DNA purified with Cica Geneus® Plasmid Prep Kit were subjected to digestion by restriction enzyme.



M: Lambda-BatPl

Lane 1: pUC18

Lane 2: pUC18, digested with Xbal

Lane 3: pQE30

Lane 4: pQE30, digested with Smal

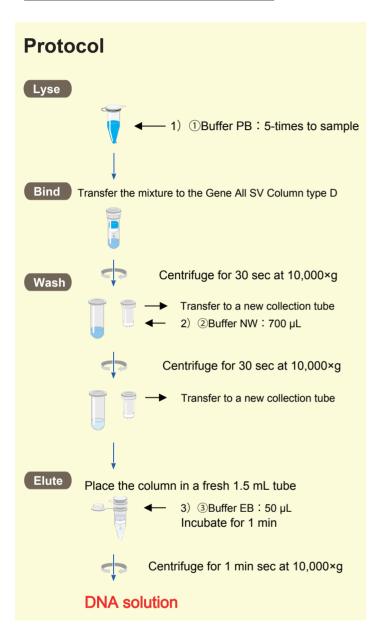
Lane 5: pBluescript II SK (+)

Lane 6: pBluescript II SK (+), digested with Xbal

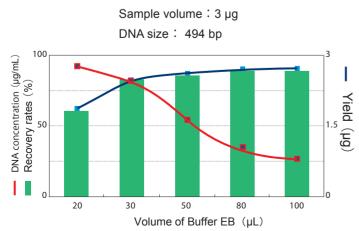


## Cica Geneus<sup>®</sup> PCR Prep Kit

Product No.	Size	
08206-96	50 preps	



### Recovery rates (%)



Cica Geneus® PCR Prep Kit is for purification of PCR product. It can recover wide range size of DNA (100 - 10 kb) and remove small DNA (< 100 bp) such as primer and primer-dimer.

The purified DNA is suitable for sequencing, cloning and etc.

### **Specifications**

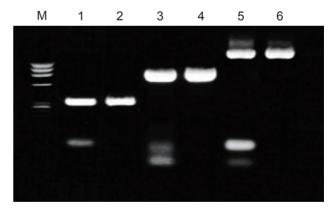
Sample volume	100 µL
Maximum loading volume	700 μL
Binding capacity	10 µg
Elution volume	30~200 µL

#### **Kit Contents**

Contents name	Size
GeneAll SV Column Type D (with collection tube)	50 ×1
①Buffer PB	30 mL×1
②Buffer NW	60 mL×1
③Buffer EB	15 mL×1

### PCR products: Bofore and After purification

Valous size of PCR products were resolved on 1.0 % agarose gel.



M: phi-x174-Hae |||

Lane 1 : PCR product (312 bp), Before purification Lane 2 : PCR product (312 bp), After purification Lane 3 : PCR product (850 bp), Before purification Lane 4 : PCR product (850 bp), After purification Lane 5 : PCR product (1.6 kp), Before purification Lane 6 : PCR product (1.6 kp), After purification



## Cica Geneus<sup>®</sup> Gel Prep Kit

Product No.	Size	
08208-96	50 preps	

### Related reagent

Product No.	Product Name	Size
32435-09	2-Propanol	500 mL

### **Protocol**





Cut the target DNA from agarose gel to use as sample



- 1) Sample
- 2) 1) Buffer GB: X µL  $(3 \mu L / 1 mg sample)$

Incubate at 65 °C for 5 - 10 min ※ Vortex per 2 - 3 min

Yellow solution is conformed



3) 2 - Propanol : Y μL  $(1 \mu L / 1 mg sample)$ 



Bind

Transfer the mixture to the Gene All SV Column type



Wash



Centrifuge for 1 min at 10,000×g



Transfer to a new collection tube 4) ①Buffer GB: 500 μL



Centrifuge for 30 sec at 10,000×g



Transfer to a new collection tube 5) ②Buffer NW: 700 μL



Centrifuge for 30 sec at 10,000×g



Transfer to a new collection tube Centrifuge for 1 min at 10,000×g

Elute

Place the column in a fresh 1.5 mL tube



6) 3Buffer EB: 50 μL Incubate for 1 min



Centrifuge for 1 min at 10,000×g

**DNA** solution

Cica Geneus® Gel Prep Kit can provide easy and rapid method for purification from standard agarose gel useing TAE, TBE Buffer and low-meltiong agalose gel.

It can purify wide range size of DNA (80 - 10 kb) from various grade agarose.

### **Specifications**

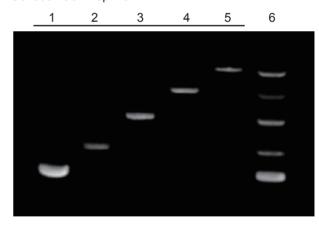
Sample volume (Agarose gel)	400 mg
Maximum loading volume	700 µL
Binding capacity	10 µg
Elution volume	30~200 µL

#### **Kit Contents**

Contents name	Size
GeneAll SV Column Type D (with collection tube)	50×1
①Buffer GB	60 mL×1
②Buffer NW	60 mL×1
3Buffer EB	15 mL×1

### DNA purification from agarose gel

Various size of DNA were resolved on agarose gel (TAE). Then, DNA were purified from agarose gel using Cica Geneus® Gel Prep Kit.



Lane 1: DNA fragment (466 bp), Before gel extraction / purification Lane 2: DNA fragment (782 bp), Before gel extraction / purification

Lane 3: DNA fragment (1.3 kb), Before gel extraction / purification Lane 4: DNA fragment (2.3 kb), Before gel extraction / purification

Lane 5: DNA fragment (5.0 kb), Before gel extraction / purification

Lane 6: DNA fragment (466 bp, 782 bp, 1.3 kb, 2.3 kb, 5.0 kb)\*

\*Pooled sample from lane 1-5 after extraction / purification



# Cica Geneus® PCR & Gel Prep Kit

agarose gel to use as sample

1) Sample
 2) ①Buffer GB : X μL (3 μL / 1 mg sample)

Yellow solution is conformed

 3) 2 - Propanol : Y μL (1 μL / 1 mg sample)

Centrifuge for 1 min at 10,000×g

→ Transfer to a new collection tube
← 4) ①Buffer GB : 500 μL

Centrifuge for 30 min at 10,000×g

Transfer to a new collection tube

Centrifuge for 30 min at 10,000×g

→ Transfer to a new collection tube
Centrifuge for 1 min at 10,000×g

Centrifuge for 1 min at 10,000×g

← 5) ②Buffer NW: 700 µL

6) ③Buffer EB: 50 μL
Incubate for 1 min

Place the column in a fresh 1.5 mL tube

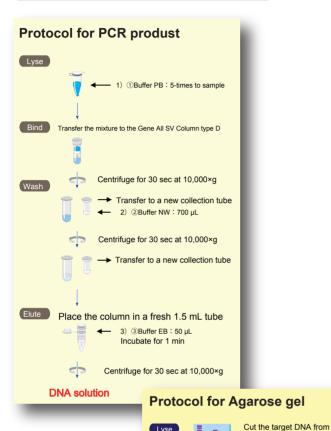
**DNA** solution

Transfer the mixture to the Gene All SV Column type

Wash

Incubate at 65 °C for 5 - 10 min

Product No.	Size	
08111-96	50 preps	
08111-97	200 preps	



This product is a combination kit of Cica Geneus® PCR Prep Kit and Gel Prep Kit. You can purify PCR product by using Buffer PB and agarose gel sample by using Buffer GB.

### **Specifications**

≪ Sample : PCR product ≫

Sample volume	100 μL	
Maximum loading volume	700 μL	
Binding capacity	10 µg	
Elution volume	30~200 µL	
≪ Sample : In agarose gel ≫		
Sample volume (Agarose gel)	400 mg	
Maximum loading volume	700 μL	
Binding capacity	10 µg	
Elution volume	30~200 µL	

#### **Kit Contents**

Contents name	Size	
Contents name	50 preps	200 preps
GeneAll SV Column Type D (with collection tube)	50 ×1	50 ×4
①Buffer PB	30 mL×1	120 mL×1
②Buffer GB	60 mL×1	120 mL×2
3Buffer NW	60 mL×1	250 mL×1
4Buffer EB	15 mL×1	30 mL×1

### Recovery rate from each samples (%)

Sample volume : 3  $\mu g$ 

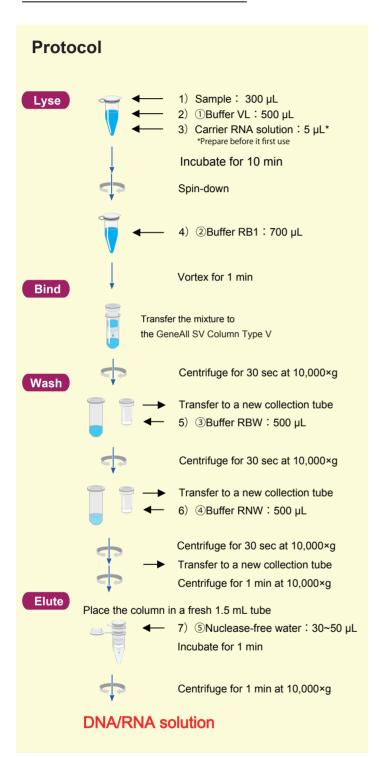
Elution Buffer : Buffer EB (50 µL)

DNA Size (bp)	PCR product (%)	Agarose gel (%)
60	0	39
120	78	71
200	83	76
800	94	84
1,800	91	82
4,300	85	78
8,700	76	73



## Cica Geneus® DNA/RNA Prep Kit (for Virus)

Product No.	Size
08215-96	50 preps



Cica Geneus® Total DNA/RNA Prep Kit (for Viral) provides an easy and rapid method for the isolation of total DNA such as cell-free fluid, cell-culture supernatant, plasma, serum, swab, urine and virus-infected samples.

The purified DNA/RNA is suitable for PCR, RT-PCR and etc.

### **Specifications**

Sample volume	300 µL
Maximum loading volume	750 µL
Binding capacity	100 µg
Elution volume	30~50 µL

#### **Kit Contents**

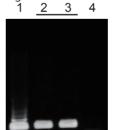
Contents name	Size
GeneAll SV Column Type V (with collection tube)	50 ×1
Collection tube	50 ×1
①Buffer VL	30 mL×1
②Buffer RB1	40 mL×1
③Buffer RBW	30 mL×1
④Buffer RNW	30 mL×1
⑤Nuclease-free water	15 mL×1
©Carrier RNA	270 μg×1

### Amplification of HSV-1 (Herpes simplex virus) DNA

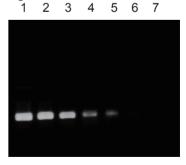
- Fig.1 DNA was purified from cells infected by HSV-1 and HSV-1 samples using Cica Geneus® DNA/RNA Prep Kit (for Virus).

  Purified DNA was amplified by PCR and comfirmed.
- Fig.2 DNA was purified gradually diluted HSV-1 sample using Cica Geneus® DNA/RNA Prep Kit (for Virus).

  Purified DNA was amplified by PCR and comfirmed.



Lane 1: HSV-1 infected cell Lane 2,3: HSV-1 sample Lane 4: Negative control



Lane 1 : HSV-1 sample ( $6 \times 10^4$  pfu) Lane 2 : HSV-1 sample( $6 \times 10^3$  pfu) Lane 3 : HSV-1 sample( $6 \times 10^2$  pfu) Lane 4 : HSV-1 sample( $6 \times 10$  pfu)

Lane 5: HSV-1 sample( 6 pfu )
Lane 6: Negative control ( PCR )

Lane 7: Negative control



# Cica Geneus® RNA Prep Kit (for Tissue)

Product No.	Size	
08057-96	50 preps	

### Related reagent

Product No.	Product Name	Size
25099-30	2 - Mercaptoethanol	25 g

### **Protocol for Tissue** Lyse 1) Sample: 25 mg 2) ①Buffer LYS: 400 μL Grind, homogenize Incubate for 10 min Bind Transfer the mixture to the Gene All SV Column type F Centrifuge for 30 sec at 10,000×g Wash Transfer to a new collection tube 3) ②Buffer GW1: 500 µL Centrifuge for 30 sec at 10,000×g Transfer to a new collection tube 4) 3Buffer RNW: 700 μL Centrifuge for 30 sec at 10,000×g Transfer to a new collection tube Centrifuge for 1 min at 10,000×g Elute Place the column in a fresh 1.5 mL tube 5) ④RNase-free water: 50 μL Incubate for 1 min Centrifuge for 1 min at 10,000×g RNA solution

Cica Geneus® RNA Prep Kit (for Tissue) provides an easy and rapid method for the isolation of total RNA such as cultured cells, whole blood cells, animal tissues.

The purified RNA is suitable for cDNA synthesis, RT-PCR and etc.

### **Specifications**

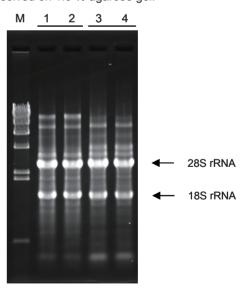
Sample size	Tissues: 25 mg Cells: 5×10 <sup>6</sup> cells
Maximum loading volume	750 µL
Binding RNA capacity	100 µg
Elution volume	40~100 µL

#### **Kit Contents**

Contents name	Size
GeneAll SV Column Type F (with collection tube)	50 ×1
1.5 mL tube	50 ×1
①Buffer LYS	30 mL×1
②Buffer GW1	35 mL×1
③Buffer RNW	50 mL×1
④RNase-free water	15 mL×1

### RNA purification from HeLa cells

RNA purified from HeLa cells using Cica Geneus® RNA Prep Kit (for Tissue) and other company's products were resolved on 1.0 % agarose gel.



M: Ladder

Lane 1,2 : Cica Geneus® RNA Prep Kit (for Tissue)

Lane 3,4: Competitive products





# Cica Geneus<sup>®</sup> RNA Prep Kit (for Plant)

Product No.	oduct No. Size	
08058-96	50 preps	

### **Optional reagent**

Product No.	Product Name	Size
11497-96	DNase I (For Cica Geneus® Prep Kit)	50 preps

### **Protocol for Plant tissue** Grind fresh plant tissue(~100 mg) to a fine powder quickly and completely, using a mortar and pestle pre-cooled with liquid nitrogen 1) Sample 2) ①Buffer RPL: 350 μL Vortex Incubate for 3 min Transfer the mixture to the EzSep filter Centrifuge for 30 sec at 10,000×g 3) Transfer the mixture to new 1.5 mLtube 4) Add 70% Ethanol: same volume to 3) Suspending (by pipette) Bind Transfer the mixture to the GeneAll SV Column Type W Centrifuge for 30 sec at 10,000×g Wash Transfer to a new collection tube 5) 3Buffer RBW: 500 µL Centrifuge for 30 sec at 10,000×g Option Transfer to a new collection tube 6) Diluted DNase I solution: 70 μL Incubate for 10 min 7) ③Buffer RBW: 500 µL Incubate for 2 min Centrifuge for 30 sec at 10,000×g Transfer to a new collection tube Centrifuge for 30 sec at 10,000×g Transfer to a new collection tube 9) Repeat 8) onse **Elute** Place the column in a fresh 1.5 mL tube ◆ 10) ⑤RNase-free water: 50 µL Centrifuge for 1 min at 10,000×g **RNA** solution

Cica Geneus® RNA Prep Kit (for Plant) provides an easy and rapid method for the isolation of total RNA such as leaves, stems and roots. It takes only 30 minute to remove various metabolites efficiently.

The purified RNA is suitable for cDNA synthesis, RT-PCR, northern blotting and etc.

### **Specifications**

Sample size	100 mg
Maximum loading volume	700 µL
Binding RNA capacity	100 µg
Elution volume	30~100 μL

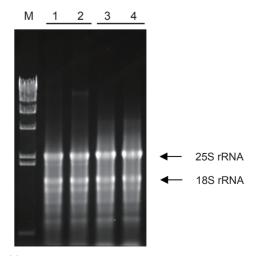
#### **Kit Contents**

Contents name	Size
GeneAll SV Column Type W (with collection tube)	50 ×1
EzSep filter (with collection tube)	50×1
1.5 mL tube	100 ×1
①Buffer RPL	25 mL×1
②Buffer REL	25 mL×1
③Buffer RBW	60 mL×1
4Buffer RNW	60 mL×1
⑤RNase-free water	15 mL×1
6Buffer DRB	5 mL×1

<sup>\*</sup>If you try DNase I treatment, please add DNase I (Product No. : 11497-96) to 70 µL of ⑤Buffer DRB before using .

### **RNA** purification from Spinach

RNA purified from Spinash using Cica Geneus® RNA Prep Kit (for Plant) and other company's products were resolved on 1.0 % agarose gel.

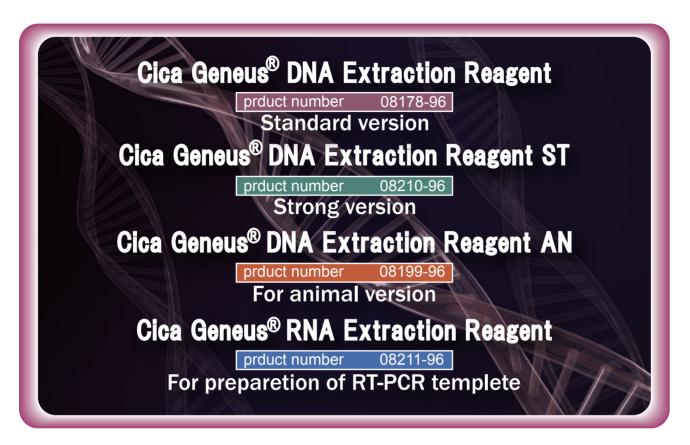


M: Ladder

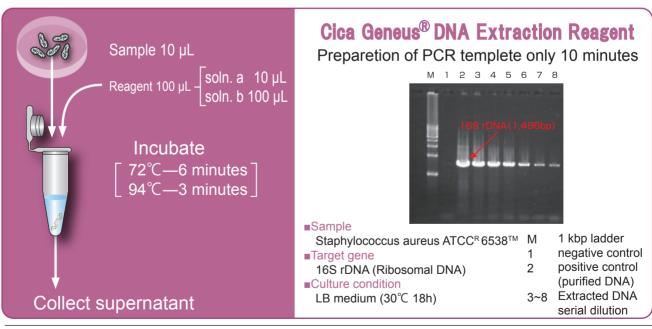
Lane 1,2: Cica Geneus® RNA Prep Kit (for Plant)

Lane 3,4: Other company's products

### Related products ~Cica Geneus® Extraction Reagent Series~

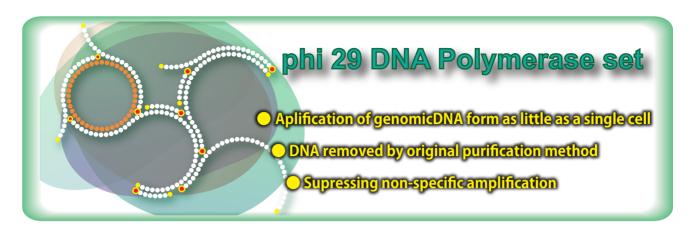


Cica Geneus® Extraction is reagent for efficient extraction of genome DNA or total RNA from cells. You can prepare PCR templete in simple operation (mix reagents and target samples, Incubate)



Product No.	Product name	Package Size
08178-96	Cica Geneus® DNA Extraction Reagent	1 Pack (120 rxn)
08210-96	Cica Geneus® DNA Extraction Reagent ST	1 Pack (120 rxn)
08199-96	Cica Geneus® DNA Extraction Reagent AN	1 Pack (120 rxn)
08211-96	Cica Geneus® RNA Extraction Reagent	1 Pack (120 rxn)

### Related products ~Enzyme for DNA amplification~



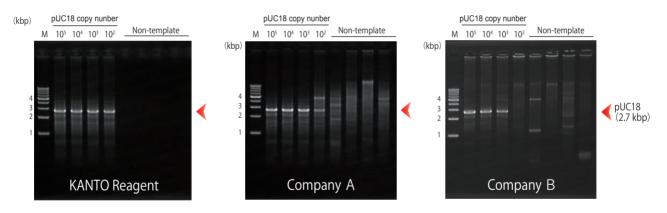
phi29 DNA Polymerase is the replicative polymerase from *Bacillus subtilis* phi29. This polymerase is available for representative amplification of the whole genome.



- Mesophilic enzymes
- Exceptional strand displacement activity
- Extreme processivity
- Extreme extensibility
- An inherent 3<sup>'</sup>→5' proofreading exonuclease activity

### **Example: Circular DNA amplification by RCA** (Rolling Circle Amplification)

pUC 18 DNA was amplified with several kinds of phi29 DNA polymerase. Then size of pUC18 DNA (2.7 kbp) were comfirmed after digesting amplificated DNA by restriction enzyme (BamH I and EcoR I).

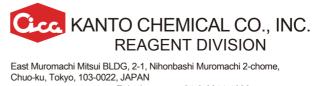


### KANTO Reagent supress non-specific amplification!

Product No.	Product name	Store at	Size
10195-96	phi29 DNA Polymerase set (0.05 mg/ mL)	-20∼-25°C	1set (25 µL × 4)

- \*This product contains both phi29 DNAポリメラーゼ (0.05 mg/ mL) 25  $\mu$ L×4 and 10 × Reaction Buffer 100  $\mu$ L×4.
- \*This product was a built jointly by KANTO CHEMICAL Co., inc and NARO(National Agriculture and Food Research Organization).





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