

Catalog 2018/19

Innovative Life Science System



Customer & Technical Support

Should you have any further questions, do not hesitate to contact us.

We appreciate your comments and advice.

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About GeneAll

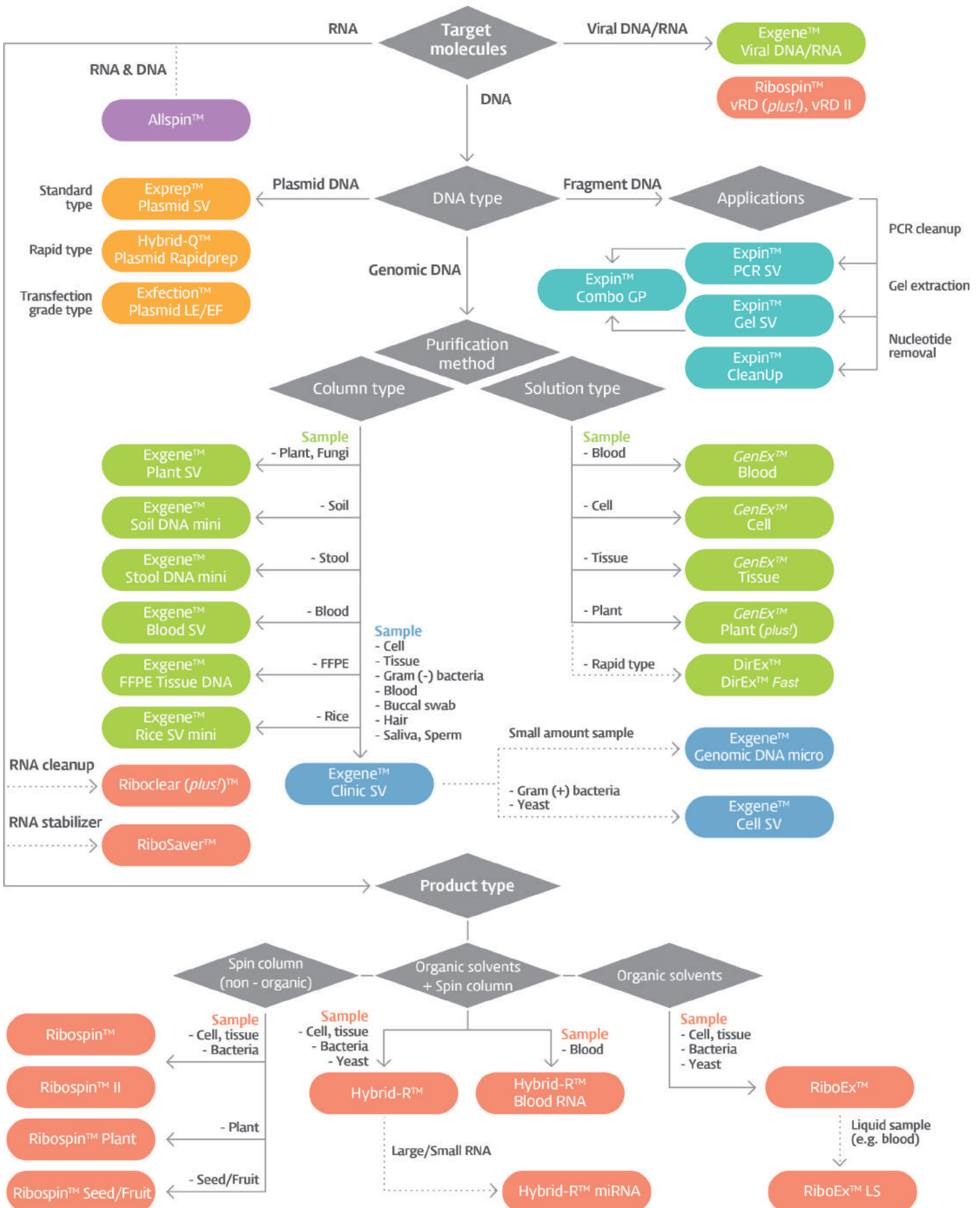
With the advance in molecular biological techniques, researchers have preferred the commercial ready-made kits to lab-made reagents in order to concentrate on doing research itself rather than making reagents. GeneAll® DNA and RNA Purification kit series are basic materials in molecular biological experiments and offer fast, accurate, convenient and reproducible methods. Every GeneAll® product is manufactured under strictly clean condition and controlled thoroughly from lot to lot, and we proudly guarantee the stable and consistent quality. GeneAll® SV column contains silica membrane that will bind DNA and easily apply to both centrifugation and vacuum protocols. Purification step is so simple, bind-wash-elute, that is all. Under high salt condition, DNA bind to silica membrane and impurities pass through membrane into a collection tube. The membranes are washed with an ethanol-containing buffer to remove any residual of proteins, cellular debris, salts, remnant of agarose, enzymatic reaction components and etc. Finally DNA is released into a clean collection tube with water or low ionic strength buffer.

GeneAll® 2018 / 19 Catalog

Visit www.geneall.com or www.geneall.co.kr for FAQ, Q&A and more information.

GeneAll® Kits Selection Guide

For DNA / RNA Purification System

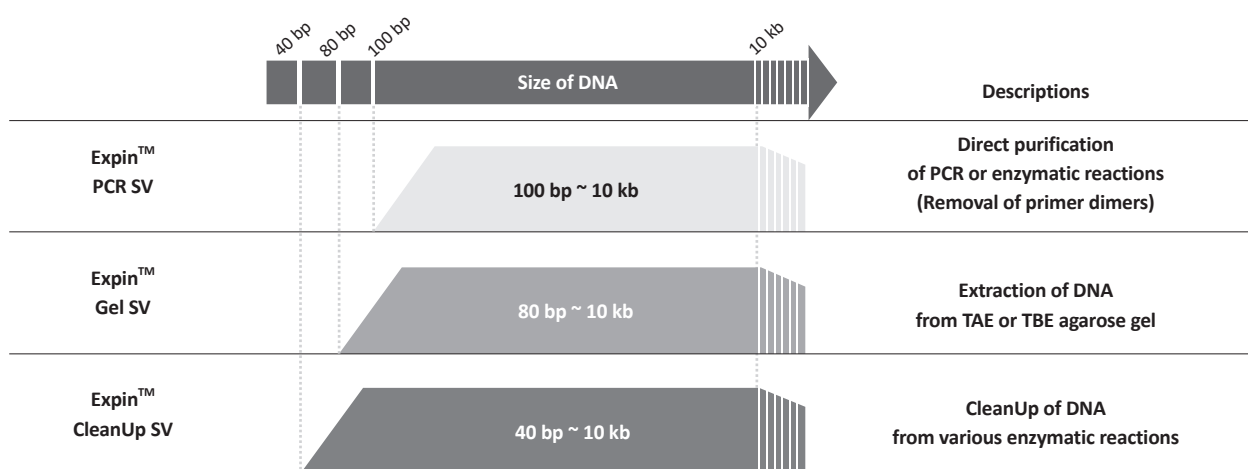


Selection Guide

For Fragment DNA Purification

Expin™ Series

Expin™ series provide reliable and fast methods for the purification of fragment DNA from agarose gel and PCR or enzymatic reaction mixtures. Expin™ Gel SV takes advantage of glass fiber membrane to recover DNA of 80 bp to 10 kb from most grades of agarose gel in yields reaching 85%. Expin™ PCR SV is used to recover DNA of 100 bp to 10 kb from PCR or enzymatic reaction mixtures and very effective to the removal of PCR primer dimer. Expin™ Combo GP kit is the combined product of Expin™ Gel SV and Expin™ PCR SV. Expin™ CleanUp SV is designed for fast and simple method for purification of fragment DNA of 40 bp to 10 kb from various enzymatic reactions in just 6 minutes.



* Expin™ SV series consist of Gel, PCR and CleanUp SV kit. Each kit is optimized for efficient recovery of DNA and removal of contaminants in each specific application.

	Expin™ PCR SV	Expin™ Gel SV	Expin™ CleanUp SV	Expin™ Combo GP *
Specifications				
Format	Spin / Vacuum	Spin / Vacuum	Spin / Vacuum	Spin / Vacuum
Starting material	100 µl PCR reactions	200 mg gel slice	50 µl enzyme reactions	100 µl PCR reactions or 200 mg gel slice
Fragment DNA size	100 bp ~ 10 kb	80 bp ~ 10 kb	40 bp ~ 10 kb	80 bp ~ 10 kb
Recovery Rate	90 ~ 95%	70 ~ 85%	80 ~ 95%	70 ~ 95%
Maximum binding capacity	10 µg	10 µg	10 µg	10 µg
Preparation time	< 6 min	< 15 min	< 6 min	< 6 min ~ 15 min
Applications				
PCR cleanup	■	-	□	■
Gel extraction	-	■	-	■
Nucleotide removal	■	■	■	■

■ Recommended / □ Suitable but not optimized

* Expin™ Combo GP kit is the combined product of Expin™ Gel SV and Expin™ PCR SV.

Expin™ Gel SV

For gel extraction of DNA fragments from agarose gel

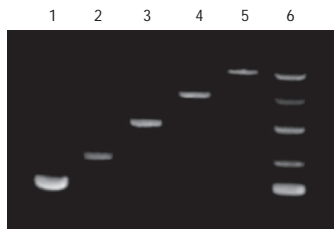
Description

DNA extraction from agarose gel is a common technique for isolation of specific fragments from reaction mixtures. However, the conventional methods either fail to completely remove agarose, shear the DNA or result in low yields. Expin™ Gel SV kit takes advantage of glass fiber membrane to recover DNA of 80 bp to 10 kb from most grades of agarose gel in yields reaching 85%.

Features and Benefits

- Spin or vacuum column format
- DNA extraction from standard and low-melting agarose (TAE, TBE)
- Stable and consistent result
- Rapid and convenient procedure
- High purity : $A_{260} / A_{280} = 1.8 \sim 2.0$
- Recovery rate : 70 ~ 85% (80 bp ~ 10 kb)
- No use of organic solvents
- Complete removal of ethidium bromide
- pH indicator in binding buffer
- Ready for ligation, sequencing, labeling, PCR, enzyme assay and etc.

Extraction Efficiency

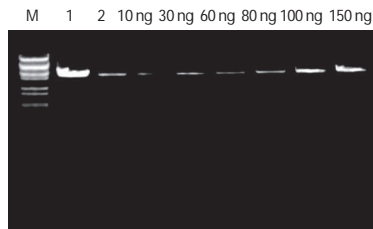


DNA fragments resolved on 1% agarose gel in TAE buffer.

Lane 1 ~ 5 : Before extraction with the Expin™ Gel SV kit.

Lane 6 : Pooled after extraction

* Fragment size : (up) 5.0 kb, 2.3 kb, 1.3 kb, 782 bp, 466 bp (bottom)



Quantities of extracted 4.5 kb DNA fragment correspond to 1 / 5 of the DNA obtained by purification from 0.5 µg starting DNA with a recovery of 85%. Samples were run on 1% TAE agarose gel.

Lane M : Lambda-BstP1

Lane 1 : Total amount before extraction (0.5 µg)

Lane 2 : 1 / 5 amount after extraction

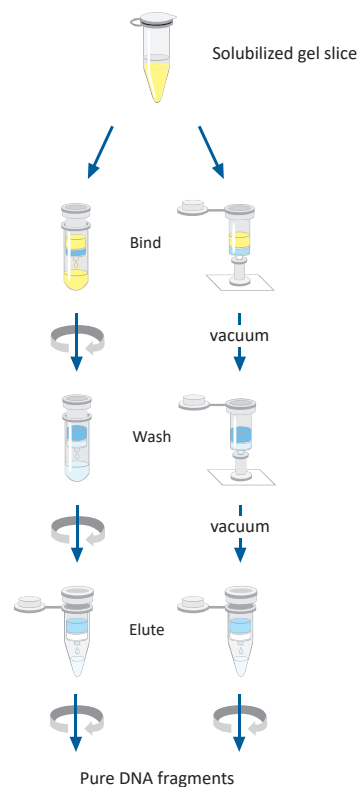
[90 ng compared to known amount (10 ~ 150 ng) DNA]

* Total obtained amount of DNA = 90 x 5 = 450 ng approximately (90%)

Procedures

in microcentrifuges

on vacuum manifolds



Component list

Column Type D (with collection tube)
 Buffer GB
 Buffer NW
 Buffer EB
 Protocol Handbook

Cat. No.	Products	Type	Size
102-150	Expin™ Gel SV	mini / spin / vacuum	50
102-102	Expin™ Gel SV	mini / spin / vacuum	200

Expin™ PCR SV

For the purification of DNA from PCR or other enzymatic reactions

Description

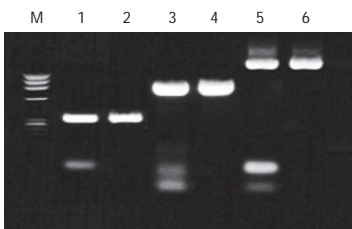
Expin™ PCR SV kit provides fastest and easiest method for reliable purification of DNA from PCR products or other enzymatic reaction mixtures without agarose gel electrophoresis. In this kit, glass fiber membrane is used to recover DNA of 100 bp to 10 kb, which is free of primer dimers, nucleotides, enzymes and salts in yields reaching 95%.

No organic extraction and alcohol precipitation are needed and multiple samples can be easily processed simultaneously.

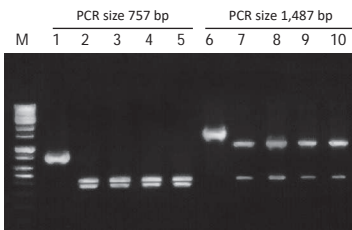
Features and Benefits

- Spin or vacuum column format
- Remove PCR primers and contaminants
- Stable and consistent result
- Fast and simple : completed just in 6 minutes
- High purity : $A_{260} / A_{280} = 1.8 \sim 2.0$
- Recovery rate : 90 ~ 95% (100 bp ~ 10 kb)
- No use of organic solvents
- Applied directly in ligation, automated sequencing, restriction enzyme assay, PCR, *in vitro* transcription, hybridization, microarray assay and other enzymatic reactions

Extraction Efficiency

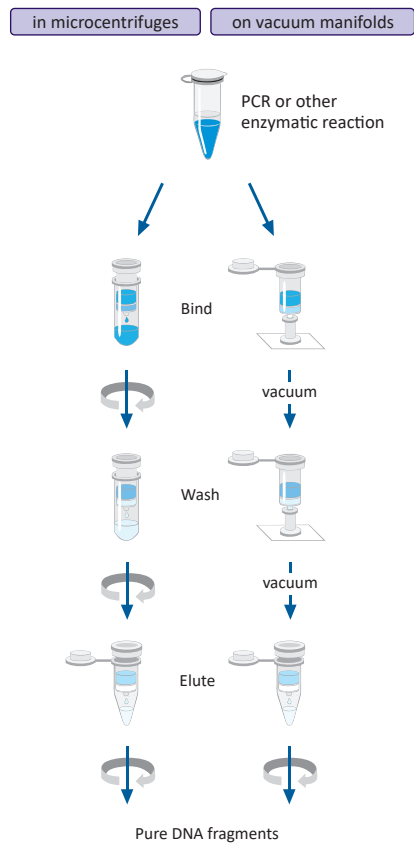


PCR products which have several length of fragment were purified with Expin™ PCR SV kit. Enzyme, salts and small fragments such as primer dimers were effectively removed by purification. PCR product sizes : 312 bp (Lane 1, 2), 850 bp (Lane 3, 4), 1.6 kb (Lane 5, 6). Lane M : phi-x174-HaeIII Lane 1, 3, 5 : Before purification Lane 2, 4, 6 : After purification



PCR products purified with Expin™ PCR SV kit were subjected to digestion with SmaI (Lane 2 ~ 5, 7 ~ 10). Lane 1, 6 represent undigested DNA. Lane M : 1 kb ladder

Procedures



Component list

- Column Type D (with collection tube)
- Buffer PB
- Buffer NW
- Buffer EB
- Protocol Handbook

Cat. No.	Products	Type	Size
103-150	Expin™ PCR SV	mini / spin / vacuum	50
103-102	Expin™ PCR SV	mini / spin / vacuum	200

Expin™ Combo GP

Combined kit of Expin™ Gel SV and PCR SV

Description

Expin™ Combo GP kit is the combined product of Expin™ Gel SV and Expin™ PCR SV. It contains not only Buffer GB required for Gel SV but also Buffer PB for PCR SV, so the procedure can be chosen as user's need. No organic extraction and alcohol precipitation are needed and multiple samples can be easily processed simultaneously. Purified DNA is ready for automated sequencing, cloning, *in vitro* transcription, microarray and other enzymatic reaction.

Features and Benefits

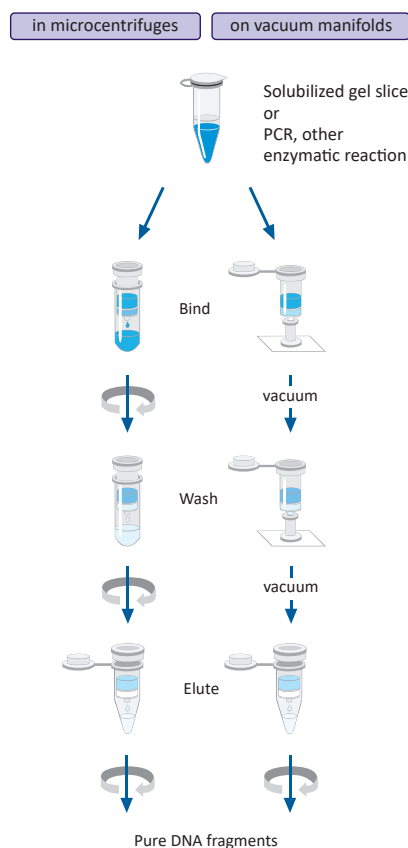
- Spin or vacuum column format
- DNA purification from agarose gel and enzymatic reactions
- Stable and consistent result
- High yield and purity
- No organic extraction or alcohol precipitation
- Ready for use in cloning, automated sequencing, *in vitro* transcription, labeling, microarray, hybridization and other enzymatic reactions

Recovery Rates (%)

DNA size (bp)	Gel SV	PCR SV	CleanUp SV
60	39	0	63
120	71	78	80
200	76	83	84
800	84	94	94
1800	82	91	93
4300	78	85	88
8700	73	76	79

Average recovery rates of Expin™ SV kit with various sizes of DNA. 3 µg of starting sample was purified and eluted with 50 µl of Buffer EB. Optional steps were not performed and SV columns were incubated for 1 minute after addition of Buffer EB.

Procedures



Component list

Column Type D (with collection tube)
 Buffer GB
 Buffer PB
 Buffer NW
 Buffer EB
 Protocol Handbook

Cat. No.	Products	Type	Size
112-150	Expin™ Combo GP	mini / spin / vacuum	50
112-102	Expin™ Combo GP	mini / spin / vacuum	200

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Customer & Technical Support

Do not hesitate to ask us any question.
We thank you for any comment or advice.