

# Zymo-Spin™ Technology



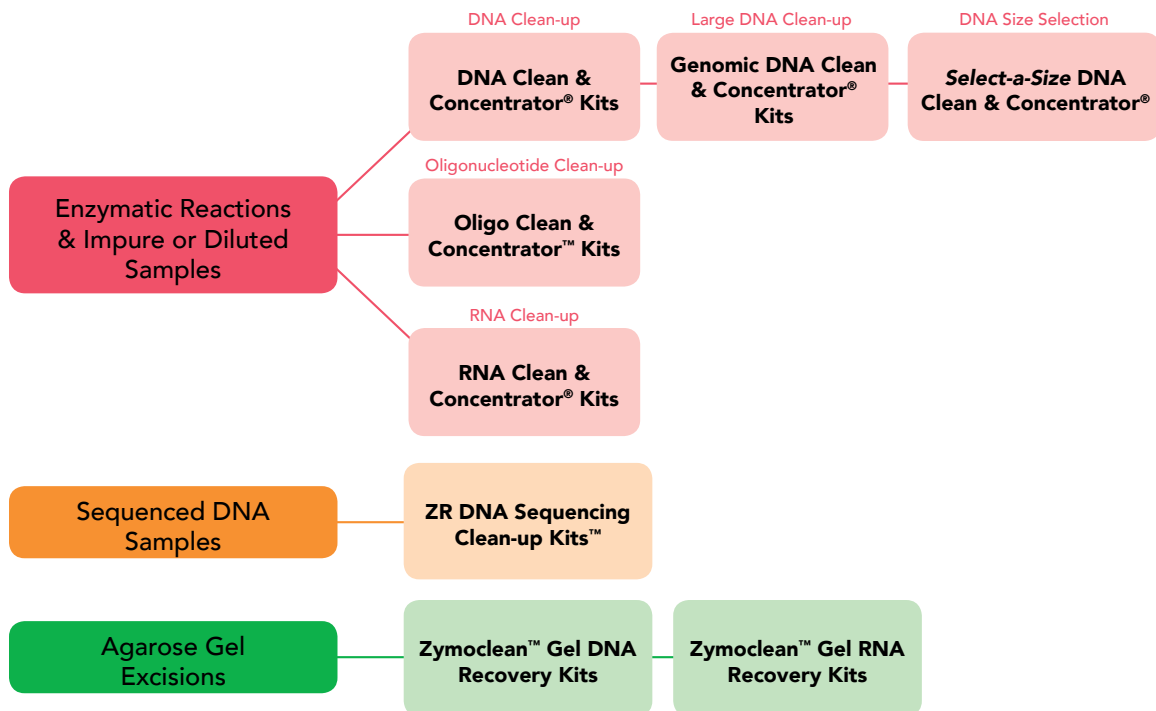
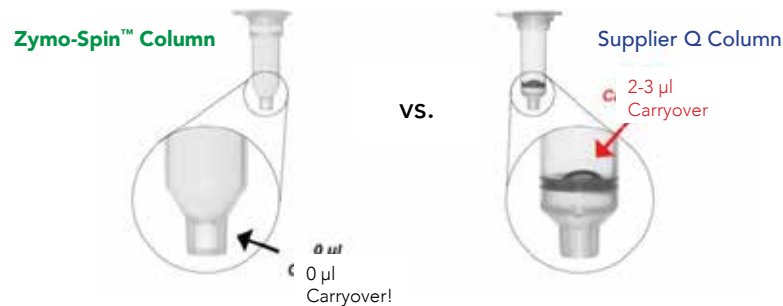
The microcentrifuge column that  
**revolutionized** nucleic acid clean-up

# Overview

## A Comprehensive Solution for DNA and RNA Clean-Up

High-quality, inhibitor-free DNA and RNA is crucial for successful (rt)PCR, DNA ligation/cloning, sequencing, arrays, and all sensitive downstream applications. Our scientists have developed the most comprehensive technologies for nucleic acid clean-up and concentration from any preparation. Central to the innovation of these is the total removal of salts and alcohols from samples with uniquely designed spin-columns and plates that ensure complete elution with no buffer carryover. Zymo-Spin™ Technology has revolutionized the microcentrifuge column to ensure the purification of high-quality, ultra-pure DNA or RNA ready for use in any downstream application.

### Zymo-Spin™ Technology Ensures High-quality DNA or RNA

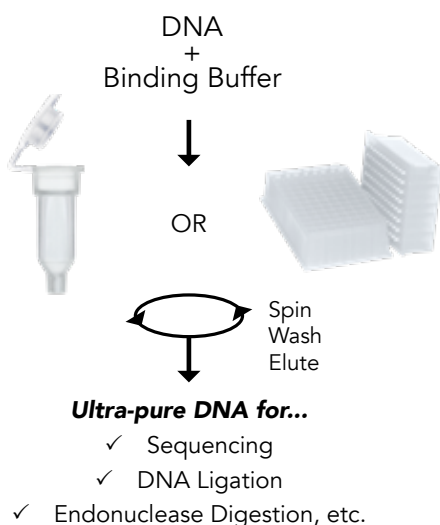


Learn more at [www.zymoresearch.com/zymo-spin](http://www.zymoresearch.com/zymo-spin)

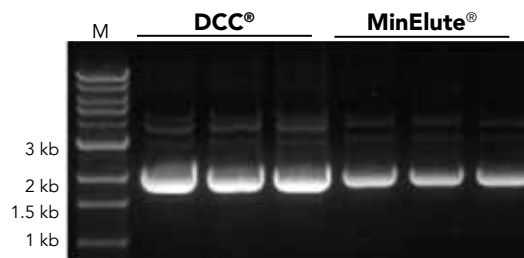
# DNA Clean & Concentrator<sup>®</sup> Kits

- Clean and concentrate DNA with  $\geq 6 \mu\text{l}$  elution volume in as little as two minutes with  $0 \mu\text{l}$  wash residue carryover.
- Column and deep-well filtration plate designs allow DNA to be eluted at high concentrations into minimal volumes of water or TE buffer.
- Eluted DNA is optimal for any down stream molecular biology application, such as DNA ligation, sequencing, labeling, PCR, etc.

## Simple, Innovative Workflow

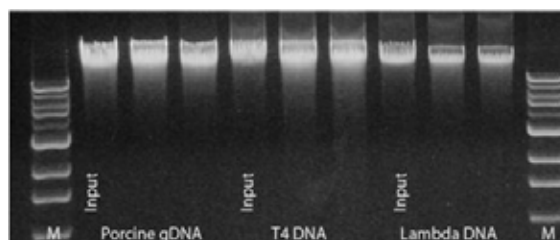


## Recover Ultra-pure, High-quality DNA with the DNA Clean & Concentrator<sup>®</sup>-5 Kits



High efficiency DNA recovery using the DCC<sup>®</sup>-5. Equivalent amounts of DNA were purified using the DCC<sup>®</sup>-5 or MinElute<sup>®</sup> Kit and analyzed by electrophoresis in a 0.8% (w/v) agarose/TAE/EtBr gel.

## Improved Recovery of Large DNA with the Genomic DNA Clean & Concentrator<sup>®</sup> Kits



High molecular weight DNA is efficiently purified using the Genomic DNA Clean & Concentrator<sup>®</sup>-10. Porcine gDNA (~35-50 kb), T4 phage DNA (170 kb), and lambda ( $\lambda$ ) phage DNA (48.5 kb) were purified (in duplicate) from input material using the Genomic DCC<sup>®</sup>. Eluted DNAs were analyzed in a 0.8% (w/v) TAE/agarose/EtBr gel. The size marker "M" is a 1 kb ladder (Zymo Research).

Product	Cat. No.	Size
DNA Clean & Concentrator <sup>®</sup> -5 (uncapped columns)	D4003	50 preps
	D4003T	10 preps
	D4004	200 preps
DNA Clean & Concentrator <sup>®</sup> -25 (uncapped columns)	D4005	50 preps
	D4006	200 preps
ZR-96 DNA Clean & Concentrator <sup>®</sup> -5	D4023	2 x 96 preps
	D4024	4 x 96 preps
Genomic DNA Clean & Concentrator <sup>®</sup> -10	D4010	25 preps
	D4011	100 preps
Genomic DNA Clean & Concentrator <sup>®</sup> -25	D4064	25 preps
	D4065	100 preps
ZR-96 Genomic DNA Clean & Concentrator <sup>®</sup> -5	D4066	2 x 96 preps
	D4067	4 x 96 preps

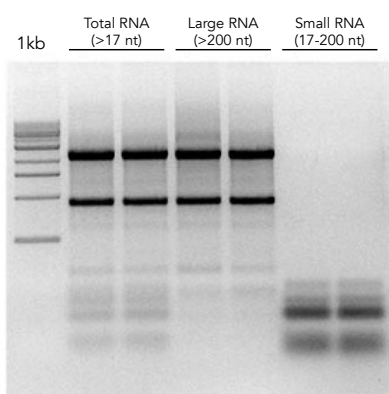
Other formats available

Learn more and view additional formats at  
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# RNA Clean & Concentrator<sup>®</sup> Kits

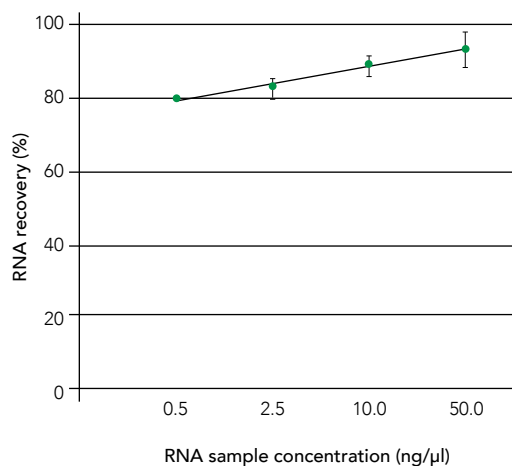
- Quick methods for cleaning and concentrating RNA.
- Zymo-Spin<sup>™</sup> technology allows for minimal elution volumes.
- Ideal for purification of RNA from aqueous phase following acid phenol extraction.

## Recover High-quality RNA



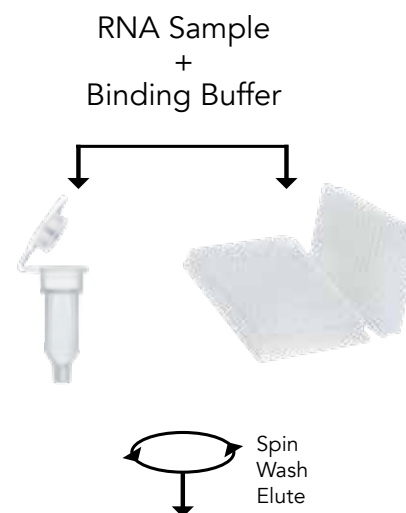
Purification of small and large RNAs into separate fractions. RNA Clean & Concentrator<sup>™</sup> allows for purification of total RNA (> 17 nt), large RNAs (> 200 nt), and/or small RNAs (17-200 nt).

## Concentrated & Ready for Use



Concentration of diluted RNA samples. RNA was eluted with 20 μl RNase-free water (n = 3, total input = 1 μg RNA).

## Simple, Innovative Workflow



### Ultra-pure RNA for...

- ✓ RT-PCR
- ✓ Sequencing
- ✓ Hybridization
- ✓ RNA Interference

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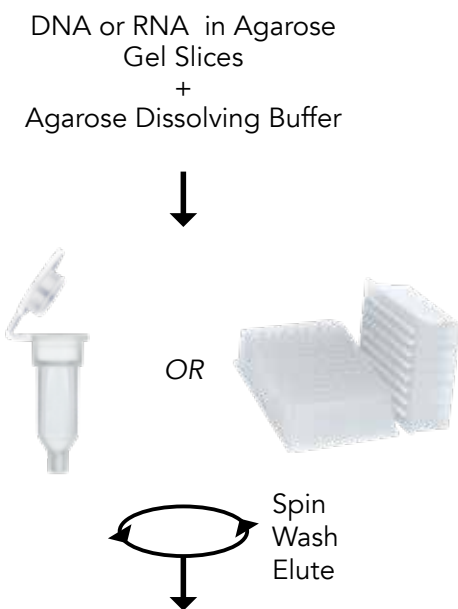
Product	Cat. No.	Size
RNA Clean & Concentrator <sup>™</sup> -5	R1015, R1013* R1016, R1014*	50 preps 200 preps
ZR-96 RNA Clean & Concentrator <sup>™</sup> -5	R1080	2 x 96 preps
RNA Clean & Concentrator <sup>™</sup> -25	R1017 R1018	50 preps 100 preps

Other formats available  
 \*Supplied with DNase I

# Zymoclean™ Gel Recovery Kits

- Quick recovery of ultra-pure DNA or RNA from agarose gels.
- Column design permits elution at high concentrations into minimal volumes ( $\geq 6 \mu\text{l}$ ).
- Eluted nucleic acid is suitable for use in all sensitive downstream applications, such as DNA ligation, sequencing, labeling, PCR, etc.

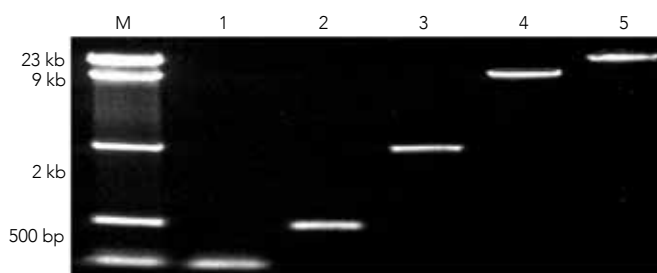
## Simple, Innovative Workflow



### Ultra-pure DNA or RNA for...

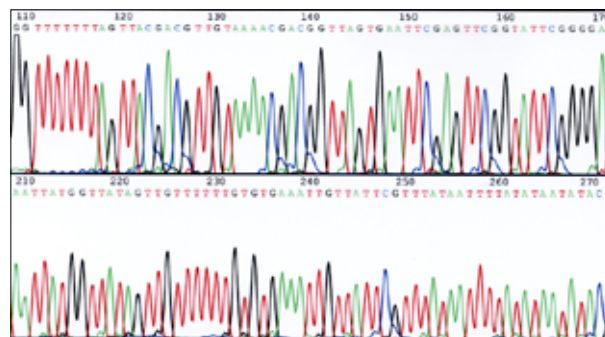
- ✓ Sequencing
- ✓ DNA Ligation
- ✓ Endonuclease Digestion, etc.

## Boost Recoveries from Agarose Gels to > 80%



DNA fragments recovered from an agarose gel using the Zymoclean™ Gel DNA Recovery Kit. Lanes: M: DNA Ladder; 1-5: individual ladder DNA fragments.

## DNA or RNA is Well-suited for Sensitive Applications



DNA sequencing chromatogram of a PCR product recovered using the Zymoclean™ Gel DNA Recovery Kit. DNA was recovered from a 2% (w/v) agarose gel and used directly for sequencing.

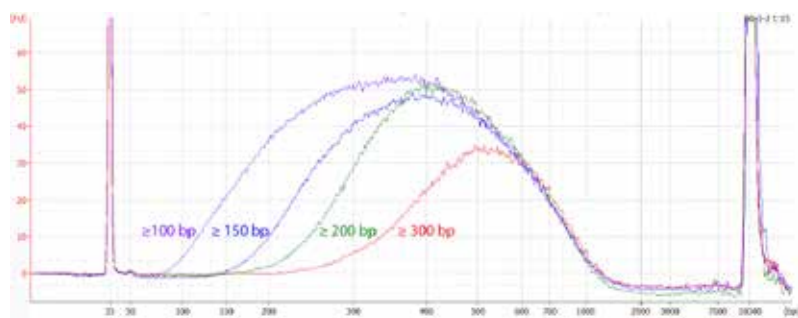
Product	Cat. No.	Size
Zymoclean™ Gel DNA Recovery Kit (uncapped columns)	D4001 D4001T D4002	50 preps 10 preps 200 preps
Zymoclean™ Gel DNA Recovery Kit (capped columns)	D4007 D4008	50 preps 200 preps
Zymoclean™ Gel RNA Recovery Kit	R1011	50 preps
Zymoclean™ Large Fragment DNA Recovery Kit	D4045 D4046	25 preps 100 preps

Learn more and view additional formats at  
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# Select-a-Size DNA Clean & Concentrator<sup>®</sup> Kit

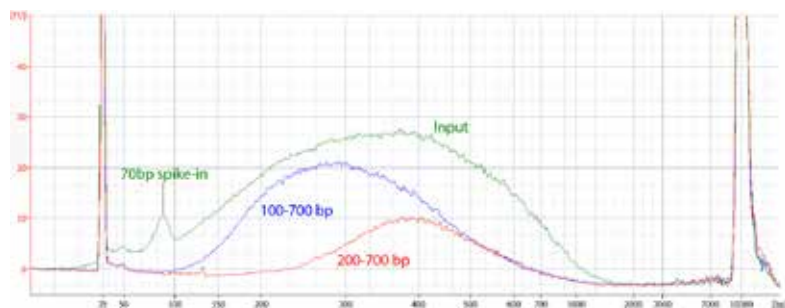
- Quick (7 minute) protocol to select for  $\geq 300$  bp,  $\geq 200$  bp,  $\geq 150$  bp,  $\geq 100$  bp,  $\geq 50$  bp DNA fragments or perform a double size selection.
- Clean and concentrate DNA from enzymatic reactions in as little as 10  $\mu$ l of DNA/RNA Free water.
- Eluted DNA is suitable for use in Next-Generation sequencing, PCR, DNA ligation, endonuclease digestion, RT-PCR, etc.

## DNA Size Selection using a Spin Column



Select-a-Size DNA Clean & Concentrator<sup>®</sup> allows for selection at  $\geq 300$  bp,  $\geq 200$  bp,  $\geq 150$  bp,  $\geq 100$  bp and  $\geq 50$  bp. DNA was size selected according to the Select-a-Size DNA Clean and Concentrator<sup>®</sup> protocol and the results were analyzed by Bioanalyzer. 700 ng of sonicated salmon sperm DNA was used as a standard input to evaluate size selection efficiency and cutoff. Eluted DNA was diluted 1:20 prior to being loaded on the High Sensitivity DNA Chip for analysis.

## Simple Procedure for Double Size Selection



Select-a-Size DNA Clean & Concentrator<sup>®</sup> can be used for double size selection of samples in ranges from 50-700 bp, 100-700 bp, 150-700 bp, and 200-700 bp. The desired DNA range was selected according to the Select-a-Size DNA Clean and Concentrator<sup>®</sup> protocol and the results were analyzed by Bioanalyzer. 700 ng of sonicated salmon sperm DNA, and a 70 bp amplicon was used as a standard input to evaluate size selection efficiency and cutoff. Eluted DNA was diluted 1:20 before loading onto the Bioanalyzer High Sensitivity DNA Chip for analysis.

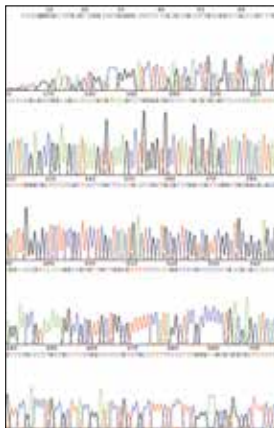
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Product	Cat. No.	Size
Select-a-Size DNA Clean & Concentrator <sup>®</sup>	D4080	25 preps

# ZR DNA Sequencing Clean-up Kits™

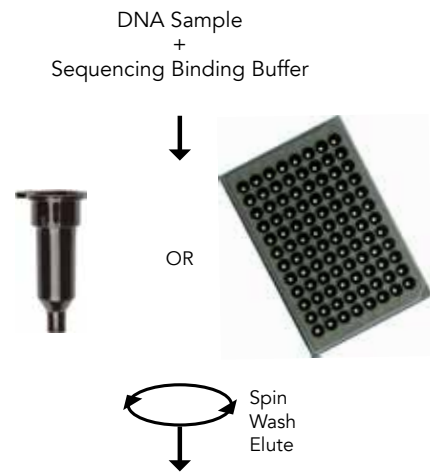
- Complete elimination of “dye blobs” for high-quality Phred scores and long read lengths.
- Flexible 6 - 20 µl elution volumes allow for direct loading of samples with no precipitation or drying steps.
- Reusable Columns!

## Ultra-pure DNA without “Dye Blobs”



Sequencing chromatogram of pGEM® DNA generated using an ABI 3730xl DNA analyzer. DNA was labeled with ABI BigDye® v3.1 Terminators and cleaned using the ZR DNA Sequencing Clean-up Kit™.

## Simple, Innovative Workflow

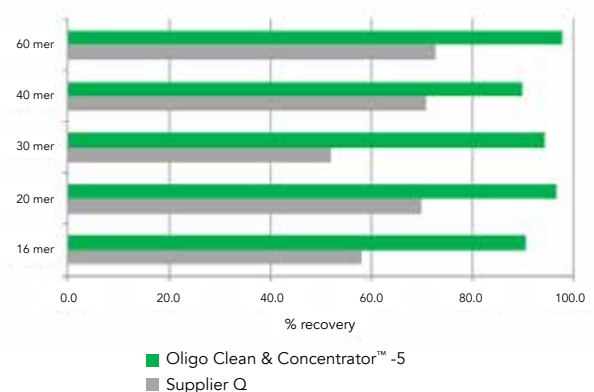


**Ultra-pure DNA** for sequencing

# Oligo Clean & Concentrator® Kits

- Quick (2 minute) recovery of ultra-pure DNA and RNA oligonucleotides.
- Complete removal of dyes, salts, enzymes, nucleotides, and short oligos.
- Eluted DNA/RNA is suitable for use in hybridization, sequencing, PCR, ligation, etc.

## Improved Recovery of Oligonucleotides



Learn more and view additional formats at  
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Product	Cat. No.	Size
ZR DNA Sequencing Clean-Up Kits™	D4050 D4051	50 preps 200 preps
ZR-96 DNA Sequencing Clean-Up Kits™	D4052 D4053	2 x 96 preps 4 x 96 preps
Oligo Clean & Concentrator™	D4060 D4061	50 preps 200 preps
ZR-96 Oligo Clean & Concentrator™	D4062 D4063	2 x 96 preps 4 x 96 preps



**ZYMO RESEARCH**

*The Beauty of Science is to Make Things Simple®*

Cat. No. B1004 Version 02

*The **BEAUTY** of **SCIENCE** is to Make Things **SIMPLE**®*



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