



**ZYMO RESEARCH**  
*The Beauty of Science is to Make Things Simple*

# DNA From Any Sample

## Simple DNA Isolation and Clean-up



# Power Your Innovation

DNA is the source code of life. There are more tools than ever that allow it to be manipulated and rearranged. The possibilities are endless and the future is limited only by your imagination.

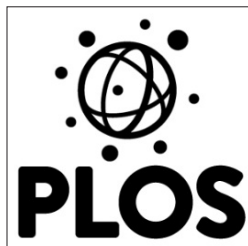
At Zymo Research, our goal is to provide you with the best tools to bring these ideas into reality. Every innovative product is designed to give you high-quality DNA to suit any downstream application.

No matter your starting sample, we have a solution for you.

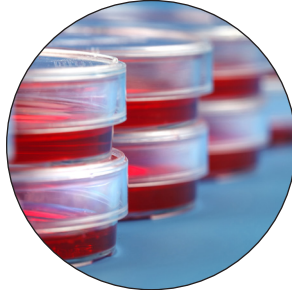
## Highly Cited & Trusted

Zymo Research purification kits have been trusted, validated, and cited for use in dozens of downstream applications:

- ✓ PCR
- ✓ Next-Gen Sequencing
- ✓ Cloning
- ✓ Transfections
- ✓ Single-Cell Analysis
- ✓ Endonuclease Digestions
- ✓ DNA Methylation Analysis
- ✓ CRISPR-Cas9
- ✓ 16s rRNA Sequencing
- ✓ qPCR
- ✓ Genotyping
- ✓ Arrays
- ✓ Transformations
- ✓ Shotgun Sequencing & more



# Isolate DNA from Any Sample

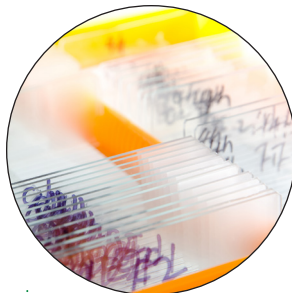


## Cell & Tissue

*Quick-DNA™ Kits*  
*Quick-DNA™ Plus Kits*  
**Page 2-3**

## Biological Fluids & Infectious Material

*Quick-DNA™ Serum & Plasma Kit*  
*Quick-DNA™ Urine Kit*  
*Quick-DNA™ Viral Kits*  
**Page 4-6**

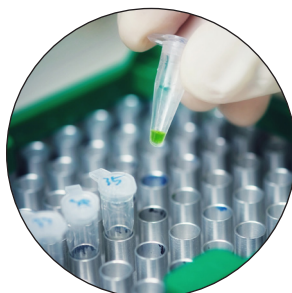


## FFPE

*Quick-DNA™ FFPE Kit*  
**Page 7**

## Environmental Samples

*Quick-DNA™ Fecal/Soil Microbe Miniprep Kit*  
*Quick-DNA™ Fungal/Bacterial Miniprep Kit*  
*Quick-DNA™ Tissue/Insect Miniprep Kit*  
*Quick-DNA™ Plant/Seed Miniprep Kit*  
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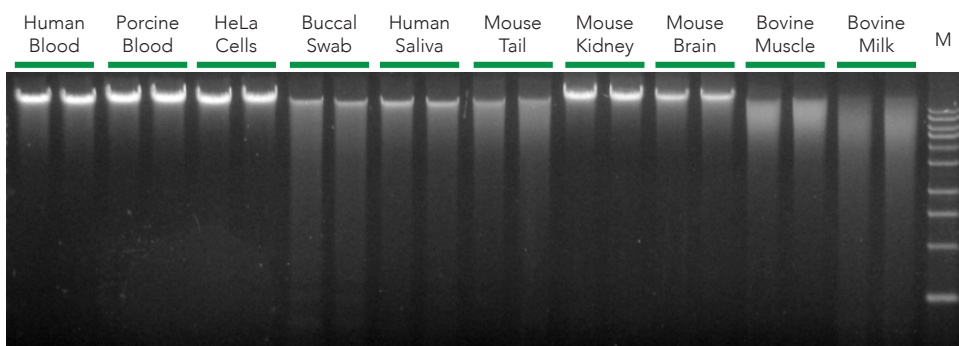
## Clean-up (enzymatic reactions, gels, etc.)

*DNA Clean & Concentrator® Kits*  
*Zymoclean™ Gel Recovery Kits*  
*Select-a-Size DNA Clean & Concentrator® Kits*  
*ZR DNA Sequencing Clean-up Kits™*  
*Oligo Clean & Concentrator® Kits*  
**Page 9-12**

# Quick-DNA™ and Quick-DNA™ Plus Kits

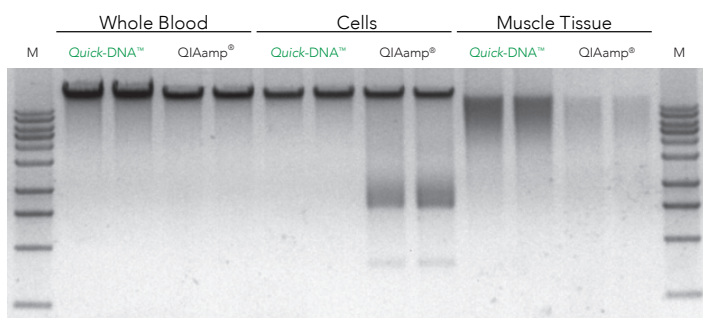
- **Quick & Easy:** Simple 20 minute procedure.
- **Highest Yield:** Recover 3x more DNA.
- **Ultra-Pure:** Ready for qPCR, Next-Gen Sequencing, arrays, etc.

## Universal Sample Compatibility



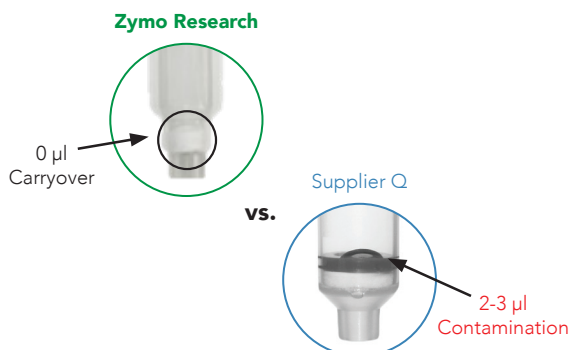
The Quick-DNA™ Miniprep Plus Kit is universal and accommodates any sample input including cultured cells, any type of tissue, whole blood, tough-to-lyse samples, milk, etc.

## Superior Yields



The Quick-DNA™ Miniprep Plus Kit isolates highly concentrated genomic DNA without any RNA contamination. Quick-DNA™ Miniprep Plus and QIAamp (Qiagen) were compared by processing porcine whole blood, HeLa cells, and bovine muscle tissue. The resultant DNA was analyzed on 1% (w/v) agarose gel.

## Purity by Design



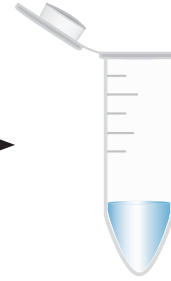
With Zymo-Spin™ Technology, there is absolutely no carryover of buffers, salts, or any PCR inhibitors. The eluted DNA is ready for all sensitive downstream applications including qPCR, Next-Gen Sequencing, and methylation analysis.

## Quick-DNA™ Plus Workflow

**Biological Fluid & Cells**  
Whole blood, semen, buffy coat, saliva, body fluids, milk, *E. coli*, insect, mammalian cells (e.g. HeLa, buccal, drosophila, etc.)



**Solid Tissues**  
Tail snips, ear punches, organ biopsies (brain, liver, heart, kidney, muscle, stomach, etc.)



Lyse & Digest Any Sample

Bind & Wash on Column

Elute NGS-ready DNA

### Quick-DNA™ Plus (Proteinase K Included)

Any Sample Type - Tissue, Cells, Whole Blood, etc.

Product	Cat. No.	Size	DNA Recovery	Minimum Elution	Input
Quick-DNA™ Microprep Plus Kit	D4074	50 preps	5 µg	10 µl	≤ 10 <sup>6</sup> cells ≤ 5 mg tissue
Quick-DNA™ Miniprep Plus Kit	D4068T D4068 D4069	10 preps 50 preps 200 preps	25 µg	35 µl	≤ 5 x 10 <sup>6</sup> cells ≤ 25 mg tissue
Quick-DNA™ Midiprep Plus Kit	D4075	25 preps	125 µg	200 µl	≤ 3 x 10 <sup>7</sup> cells ≤ 125 mg tissue
Quick-DNA™ 96 Plus Kit	D4070 D4071	2 x 96 preps 4 x 96 preps	5 µg	15 µl	≤ 10 <sup>6</sup> cells ≤ 5 mg tissue
Quick-DNA™ Magbead Plus Kit	D4081 D4082	1 x 96 preps 4 x 96 preps	10 µg	75 µl	≤ 3 x 10 <sup>6</sup> cells ≤ 25 mg tissue

### Quick-DNA™ (No Proteinase K)

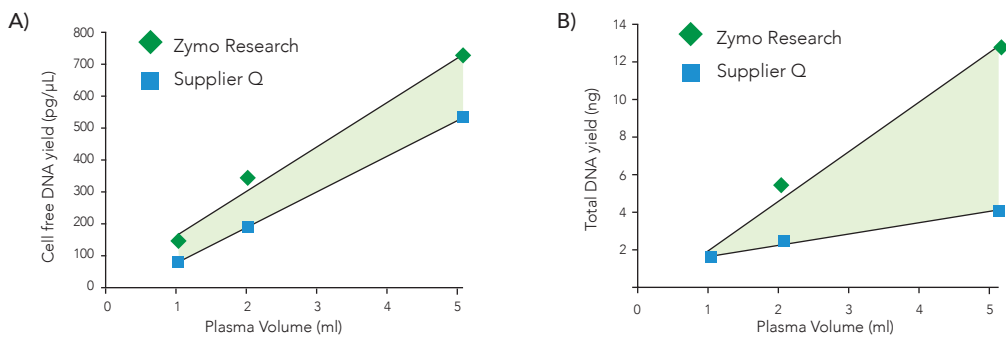
Whole Blood, Swabs, Cells

Product	Cat. No.	Size	DNA Recovery	Minimum Elution	Input
Quick-DNA™ Microprep Kit	D3020 D3021	50 preps 200 preps	5 µg	10 µl	≤ 10 <sup>6</sup> cells
Quick-DNA™ Miniprep Kit	D3024 D3025	50 preps 200 preps	25 µg	25 µl	≤ 5 x 10 <sup>6</sup> cells
Quick-DNA™ 96 Kit	D3010 D3011 D3012	2 x 96 preps 4 x 96 preps 10 x 96 preps	5 µg	30 µl	≤ 10 <sup>6</sup> cells

# Quick-cfDNA™ Serum & Plasma Kit

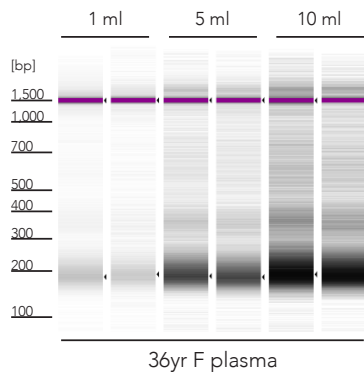
- **High Processing Volume:** Purify  $\leq 10$  ml of serum or plasma and elute with 35  $\mu$ l.
- **Highest Yields:** Consistently purify > 30% more cfDNA.
- **Ultra-Pure:** Ready for qPCR, Next-Gen Sequencing, etc.

## Highest Yields



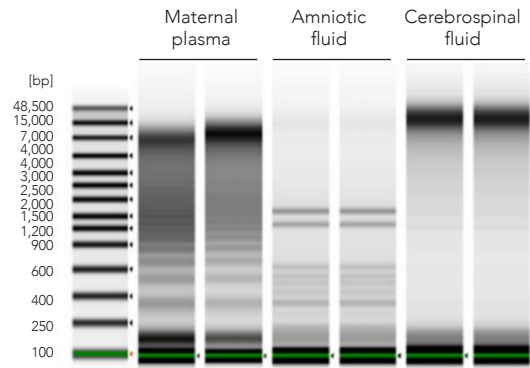
The Quick-cfDNA™ Serum & Plasma Kit recovers more cell-free DNA than a comparable Supplier Q kit. The DNA recovered is linearly proportional to the sample input volume when compared with Supplier Q. (A) Concentration of the smallest nucleosomal fragment DNA (N1, ~180 bp) was determined using the Agilent 2100 Bioanalyzer® system. (B) Total DNA recovery was quantified using the Zymo Research Femto™ Human DNA Quantification Kit on an Applied Biosystems® 7500 Real-Time PCR System.

## Linear and Efficient Recovery of Cell-Free DNA



Cell-free DNA recovery scales proportionally with sample input using the Quick-cfDNA™ Serum & Plasma Kit. Cell-free DNA was isolated in duplicate from three healthy female donors, and visualized using the Agilent 2200 TapeStation® system.

## Versatile Sample Compatibility



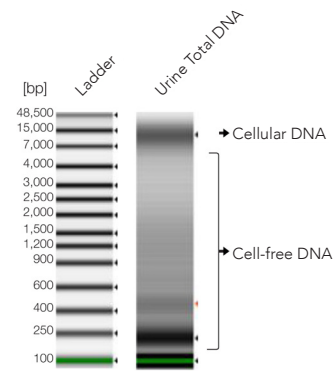
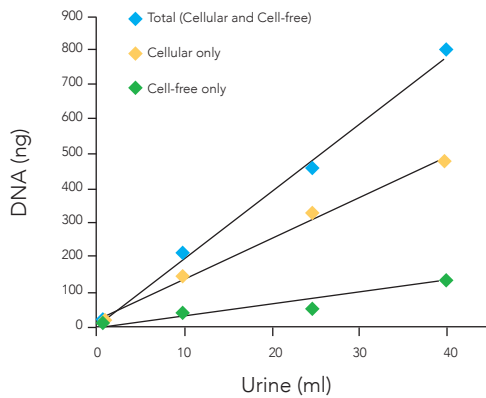
Total DNA, including both high and low molecular weight species, was purified in duplicate from human maternal plasma, amniotic fluid, and cerebrospinal fluid. DNA was visualized using the Agilent 2200 TapeStation® system.

Product	Cat. No.	Size
Quick-cfDNA™ Serum & Plasma Kit	D4076	50 preps

# Quick-DNA™ Urine Kit

- **Total DNA Recovery:** Recover cellular and/or cell-free DNA easily from ≤ 40 ml of urine.
- **Preservation Reagent Included:** Nucleic acid stabilized at room temperature for 30 days.
- **Ultra-Pure:** Ready for qPCR, Next-Gen Sequencing, arrays, etc.

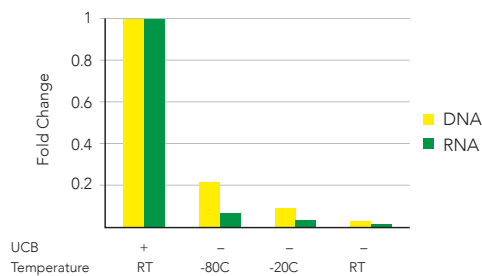
## Cellular DNA. Cell-free DNA. Or Both!



DNA yields increase linearly with increasing urine from healthy subjects extracted with the Quick-DNA™ Urine Kit. DNA was isolated from 1 ml, 10 ml, 25 ml, and 40 ml urine. DNA concentration was quantified by qPCR using the Femto™ Human DNA Quantification Kit (Zymo Research).

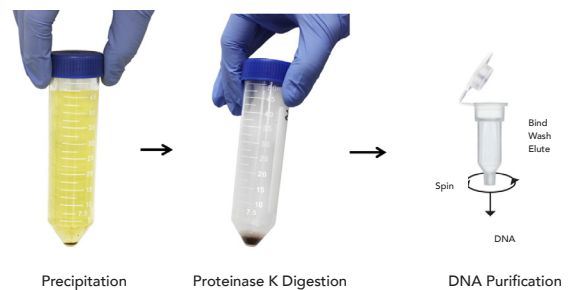
Both cellular and cell-free DNA was effectively purified from urine. 5 ml of urine from a healthy female donor was processed and DNA was eluted in 20 µl final volume. Purified DNA was analyzed using the Agilent 2200 TapeStation® system.

## Superior Preservation



Urine Conditioning Buffer (UCB) preserves nucleic acid better than conventional methods. Urine (with or without UCB) was preserved using different storage conditions: Room temperature (RT), -20 °C, and -80 °C. After 2 weeks of storage, total DNA (yellow) and total RNA (green) were purified using the Quick-DNA™ Urine Kit and a custom RNA extraction protocol by Zymo Research, respectively. Corresponding fold change of preserved nucleic acids obtained from qPCR analysis.

## Streamlined Workflow

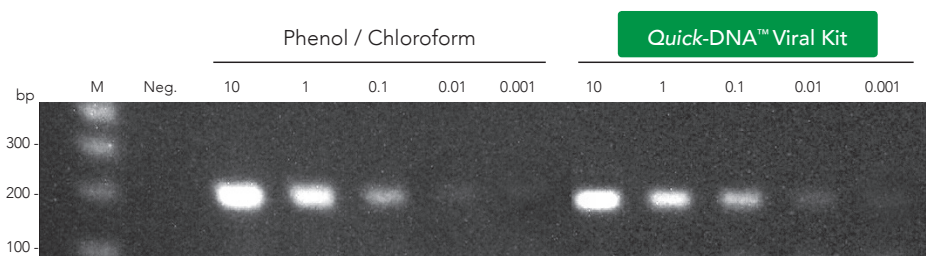


Product	Cat. No.	Size
Quick-DNA™ Urine Kit	D3061	50 preps

# Quick-DNA™ Viral Kit

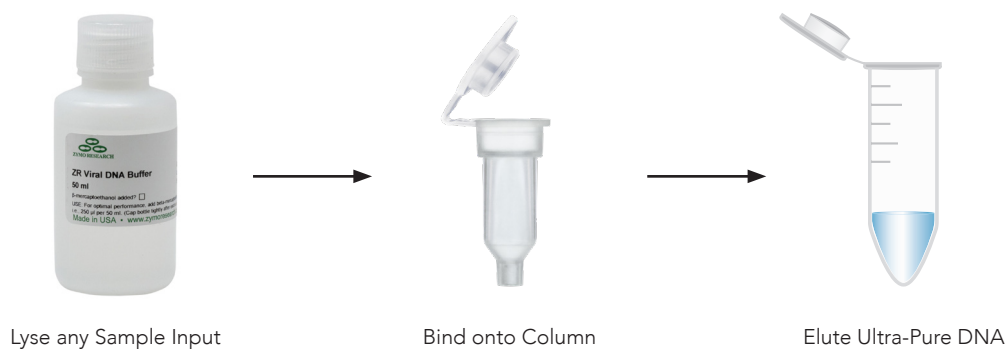
- **Rapid Protocol:** Elute DNA in 6 µl within 10 minutes.
- **Ultra-Pure:** Ready for qPCR, Next-Gen Sequencing, arrays, etc.
- **High Sensitivity:** Yields increase linearly with sample input.

## Viral DNA in 10 minutes



Viral DNA is quickly and easily purified with the Quick-DNA™ Viral Kit. Human HBV DNA was isolated from 10 to 0.001 µl of human serum using phenol/chloroform or Quick-DNA™ Viral Kit. The presence of HBV DNA is evidenced by a ~200 bp PCR amplicon. The size market M is a 100 bp DNA Ladder (Zymo Research) and "Neg." is the negative PCR control.

## The Simplest Workflow



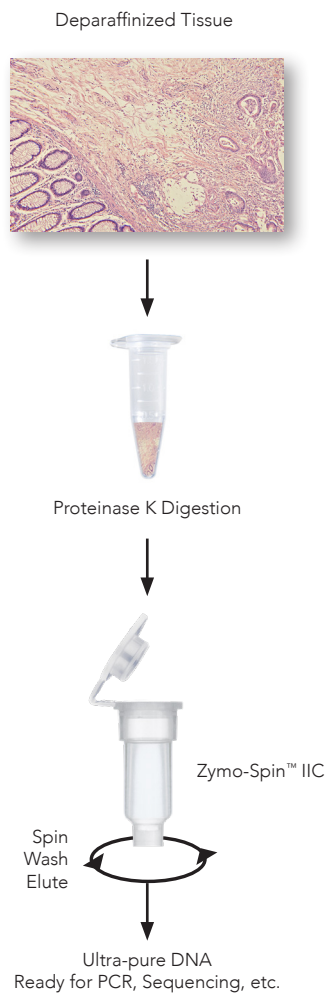
Product	Cat. No.	Size
Quick-DNA™ Viral Kit	D3015	50 preps
	D3016	200 preps
Quick-DNA™ Viral 96 Kit	D3017	2 x 96 preps
	D3018	4 x 96 preps



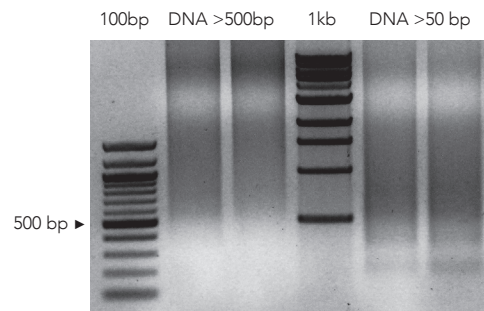
# Quick-DNA™ FFPE Kit

- **Quick & Easy:** Rapid dewaxing procedure (no xylene necessary).
- **Ultra-Pure:** Ready for qPCR, Next-Gen Sequencing, arrays, etc.
- **Highest Yield:** Recover 6x more DNA.

## Simplest Workflow

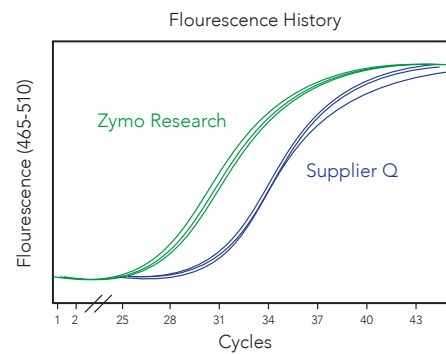


## Size Selection Built In



The Quick-DNA™ FFPE Kit selectively isolates DNA >50 bp or >500 bp. Equivalent amounts of DNA were resolved on a 1% agarose gel stained with EtBr.

## The Highest Recovery



DNA isolated using the Quick-DNA™ FFPE Kit consistently yielded more usable DNA, indicated by lower Ct values, than the Supplier Q kit. Equivalent amounts of DNA isolated using Zymo Research and Supplier Q procedures were used for real time PCR analysis.

Product	Cat. No.	Size
Quick-DNA™ FFPE Kit	D3067	50 preps

# Quick-DNA™ Environmental Kits

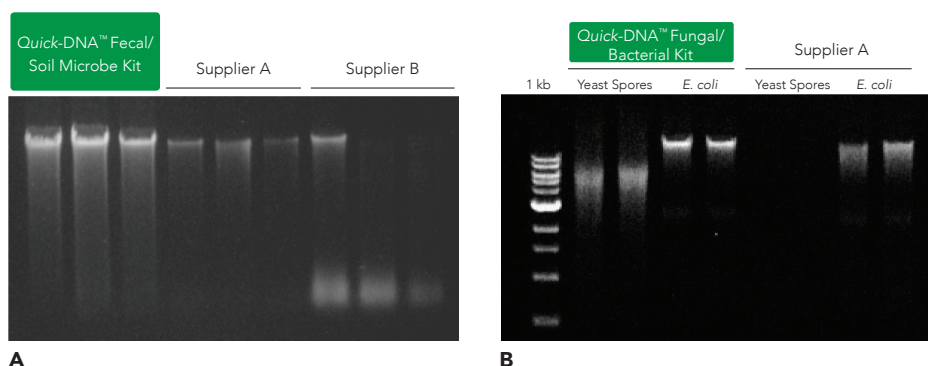
- **Boost Detection:** included BashingBeads ensure complete lysis of tough-to-lyse samples.
- **Inhibitor-Free:** Ready for qPCR, Next-Gen Sequencing, arrays, etc.
- **Simple Workflow:** Lyse, purify on column, and filter to remove PCR inhibitors.

## Higher Yields

High-quality total DNA was isolated from different environmental sample sources using the Quick-DNA™ Kits and compared against other suppliers. Equivalent amounts of sample input were processed using each kit, then equal amounts of the eluted DNA were analyzed on a 0.8% (w/v) agarose gel stained with EtBr.

**A.** Quick-DNA™ Fecal/Soil Microbe Kit recovers high quality total DNA with greater yields compared to Supplier A and Supplier B.

**B.** Quick-DNA™ Fungal/Bacterial Kit provides much greater yield of high quality and structurally intact DNA compared to Supplier A.

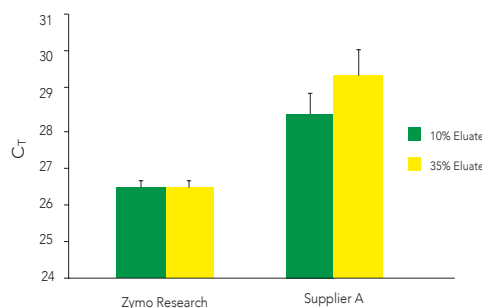


## Complete Homogenization



State-of-the-art BashingBeads™ are ideal for disrupting tough-to-lyse organisms when paired with bead mills or high speed cell disrupters.

## Ultra-Pure & Inhibitor-Free DNA



Real-time PCR was used to evaluate 10% or 35% of eluates recovered using the Quick-DNA™ Fecal/Soil Microbe Kit or Supplier A Kit to detect PCR inhibitors. Delayed amplification indicates PCR inhibition from inefficient inhibitor removal (n=8).

Product	Cat. No.	Size	Binding Capacity	Minimum Elution	Input Amount
Quick-DNA™ Fecal/Soil Microbe Miniprep Kit	D6010	50 preps	≤ 25 µg	50 µl	≤ 50-200 mg
Quick-DNA™ Fungal/Bacterial Miniprep Kit	D6005	50 preps	≤ 25 µg	25 µl	≤ 50-100 mg
Quick-DNA™ Tissue/Insect Miniprep Kit	D6016	50 preps	≤ 25 µg	25 µl	≤ 50 mg
Quick-DNA™ Plant/Seed Miniprep Kit	D6020	50 preps	≤ 25 µg	50 µl	≤ 150 mg

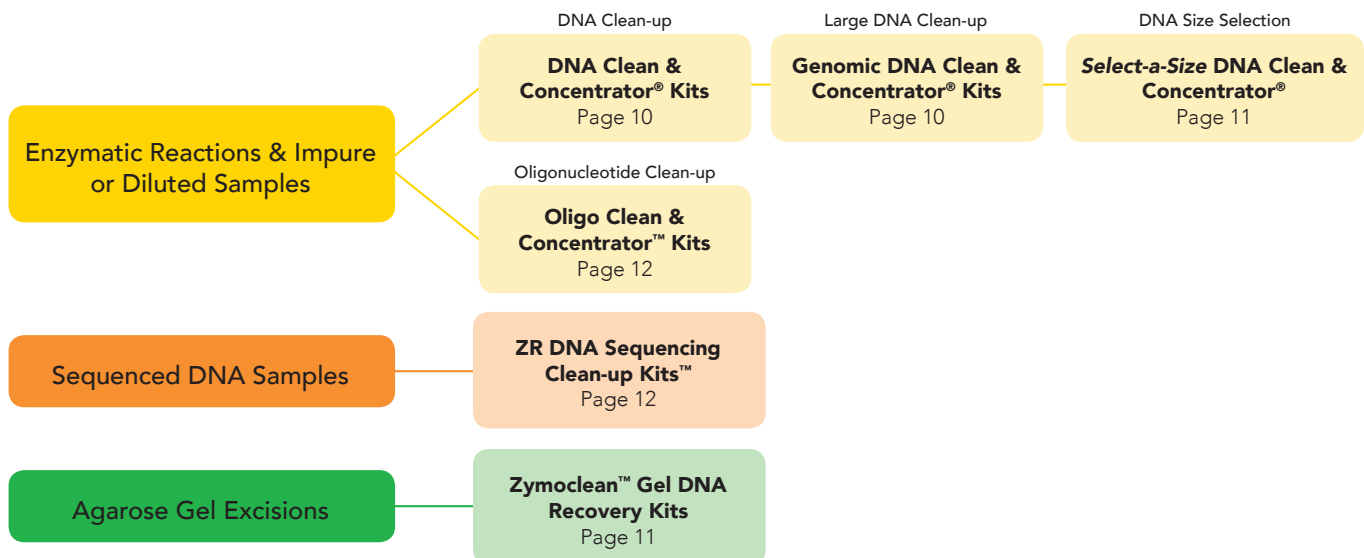
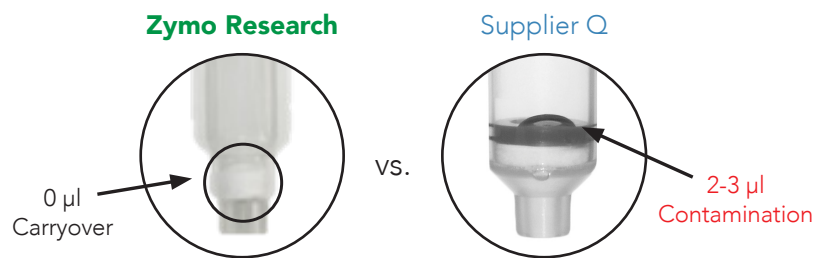
Additional formats and sizes available (see Page 13)

# DNA Clean-Up Overview

## A Comprehensive Solution for DNA Clean-Up

High-quality, inhibitor-free DNA is crucial for successful qPCR, 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 by using 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 ready for use in any downstream application.

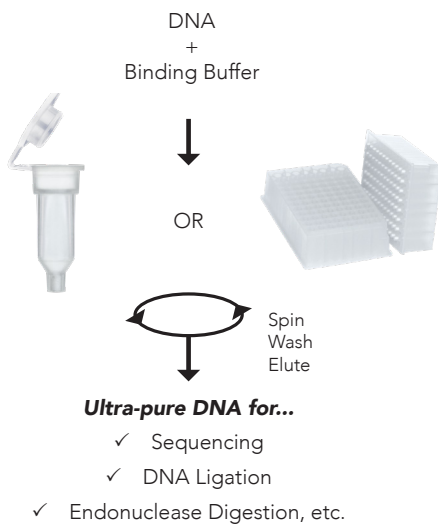
### Zymo-Spin™ Technology Ensures High-quality DNA



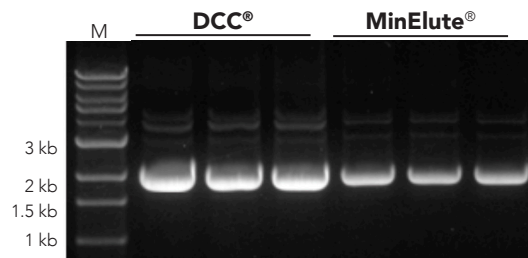
# DNA Clean & Concentrator® Kits

- **Fast & Simple:** Clean and concentrate DNA in 2 minutes.
- **Highly Concentrated:** Elute in as little as 6 µl.
- **Ultra-Pure:** Ready for Next-Gen Sequencing, PCR, ligations, etc.

## Simple, Innovative Workflow

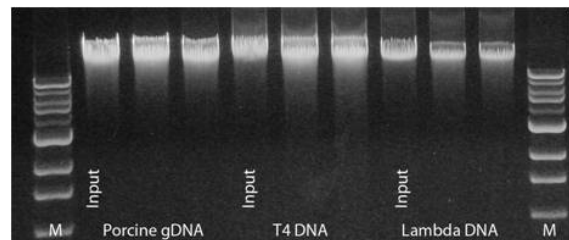


## Recover Ultra-Pure, High-Quality DNA



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

## Improved Recovery of Large DNA



High molecular weight DNA is efficiently purified using the Genomic DNA Clean & Concentrator®-10. Porcine gDNA (~35-50 kb), T4 phage DNA (170 kb), and lambda (λ) phage DNA (48.5 kb) were purified (in duplicate) from input material using the Genomic DCC®. 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® -5 (uncapped columns)	D4003	50 preps
	D4003T	10 preps
	D4004	200 preps
DNA Clean & Concentrator® -25 (uncapped columns)	D4005	50 preps
	D4006	200 preps
ZR-96 DNA Clean & Concentrator®-5	D4023	2 x 96 preps
	D4024	4 x 96 preps
Genomic DNA Clean & Concentrator®-10	D4010	25 preps
	D4011	100 preps
Genomic DNA Clean & Concentrator®-25	D4064	25 preps
	D4065	100 preps
ZR-96 Genomic DNA Clean & Concentrator®-5	D4066	2 x 96 preps
	D4067	4 x 96 preps

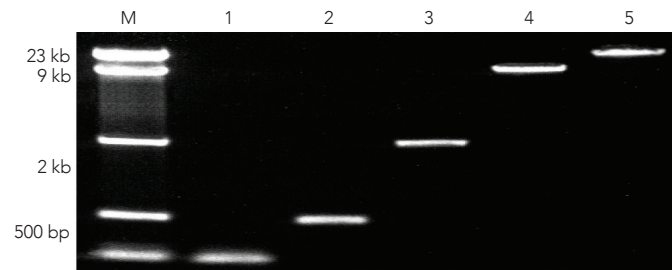
See website for additional formats

# Zymoclean™ Gel Recovery Kits

- **Superior Yields:** Recover 80% of DNA from agarose gels.
- **Highly Concentrated:** Elute in as little as 6 µl.
- **Ultra-Pure:** Ready for Next-Gen Sequencing, PCR, ligations, etc.

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™ Large Fragment DNA Recovery Kit	D4045 D4046	25 preps 100 preps

## Boost Recoveries from Agarose Gels to > 80%



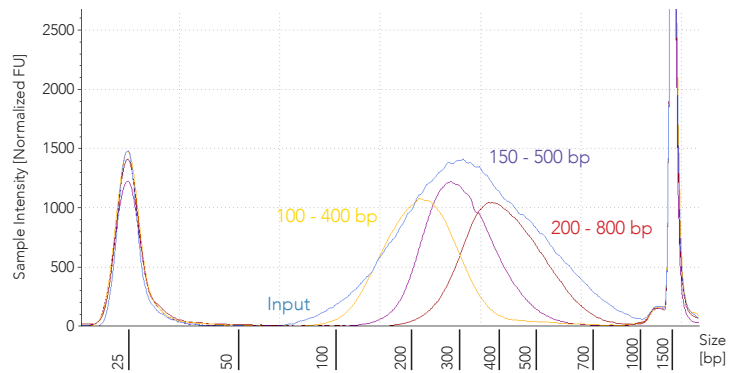
DNA fragments recovered from an agarose gel using the Zymoclean™ Gel DNA Recovery Kit. Lanes: M: DNA Ladder; 1-5: individual ladder DNA fragments.

# Select-a-Size DNA Clean & Concentrator® Kit

- **Tunable:** Size selection can be tuned from 100 bp to 1000 bp with left, right, or double size selection.
- **Ultra-Pure:** 10 µl elutions are ready for Next-Gen Sequencing, etc.
- **Automation Ready:** Scripts and automation support readily available.

## Easy Size Selection

Select-a-Size DNA Clean & Concentrator® MagBead Kit allows for adjustable size selection. Exemplary size selections (using 2 µg of sonicated DNA) were analyzed using the Agilent 2200 TapeStation® system.

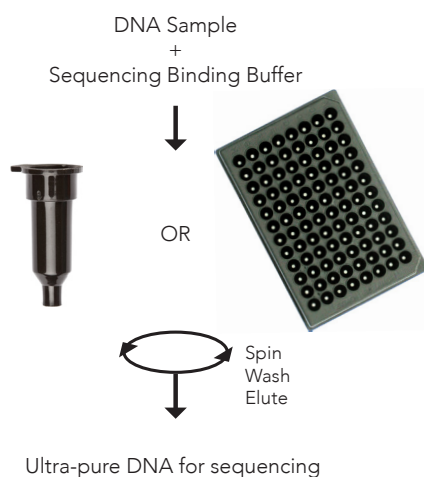


Product	Cat. No.	Size
Select-a-Size DNA Clean & Concentrator®	D4080	25 preps
Select-a-Size DNA Clean & Concentrator® MagBead	D4084 D4085	10 ml 50 ml

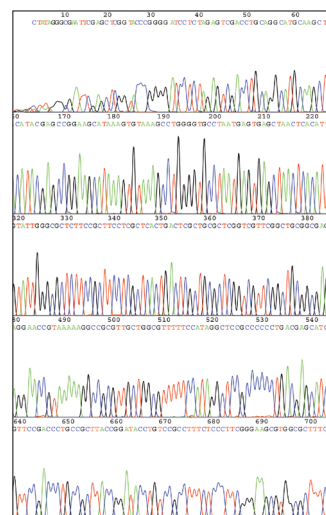
# ZR DNA Sequencing Clean-up Kits™

- **Long Read Lengths:** Complete elimination of “dye blobs” for high-quality Phred scores.
- **Reusable:** Columns can be reused.
- **Flexible Elutions:** 6-20 µl elution volumes allow for direct loading of samples without precipitation or drying.

## Simple, Innovative Workflow



## 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™.

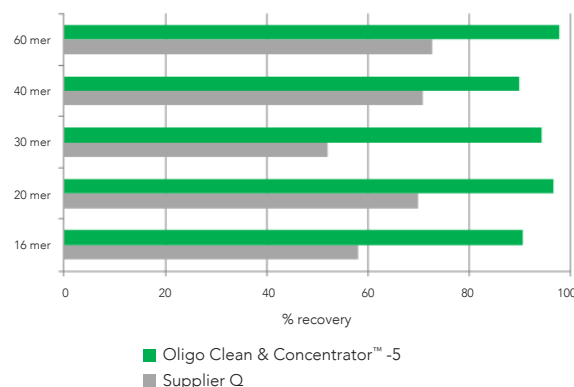
Product	Cat. No.	Size
ZR DNA Sequencing Clean-Up Kits™	D4050 D4051	50 preps 200 preps
ZR-96 DNA Sequencing Clean-Up Kits™	D4052 D4053	2 x 96 preps 4 x 96 preps

# Oligo Clean & Concentrator® Kits

- **Fast & Simple:** Clean and concentrate DNA in 2 minutes.
- **Ultra-Pure:** Ready for Next-Gen Sequencing, PCR, ligations, etc.
- **Complete removal:** Eliminate dyes, salts, enzymes, and short oligos.

Product	Cat. No.	Size
Oligo Clean & Concentrator™	D4060 D4061	50 preps 200 preps
ZR-96 Oligo Clean & Concentrator™	D4062 D4063	2 x 96 preps 4 x 96 preps

## Improved Recovery of Oligonucleotides



# Genomic DNA and DNA Clean-Up Products

Product	Cat. No.	Size
Quick-DNA™ Microprep Plus Kit	D4074	50 preps
Quick-DNA™ Miniprep Plus Kit	D4068T D4068 D4069	10 preps 50 preps 200 preps
Quick-DNA™ Midiprep Plus Kit	D4075	25 preps
Quick-DNA™ 96 Plus Kit	D4070 D4071	2 x 96 preps 4 x 96 preps
Quick-DNA™ Magbead Plus Kit	D4081 D4082	1 x 96 preps 4 x 96 preps
Quick-DNA™ Microprep Kit	D3020 D3021	50 preps 200 preps
Quick-DNA™ Miniprep Kit	D3024 D3025	50 preps 200 preps
Quick-DNA™ 96 Kit	D3010 D3011 D3012	2 x 96 preps 4 x 96 preps 10 x 96 preps
Quick-cfDNA™ Serum & Plasma Kit	D4076	50 preps
Quick-DNA™ Urine Kit	D3061	50 preps
Quick-DNA™ FFPE Kit	D3067	50 preps
Quick-DNA™ Fecal/Soil Microbe Microprep Kit	D6012	50 preps
Quick-DNA™ Fecal/Soil Microbe Miniprep Kit	D6010	50 preps
Quick-DNA™ Fecal/Soil Microbe Midiprep Kit	D6110	25 preps
Quick-DNA™ Fecal/Soil Microbe 96 Kit	D6011	2 x 96 preps
Quick-DNA™ Fecal/Soil Microbe 96 Magbead Kit (includes ZR BashingBead™ Lysis Rack)	D6010-FM	2 x 96 preps
Quick-DNA™ Fecal/Soil Microbe 96 Magbead Kit (Lysis Matrix Not Included)	D6011-FM	2 x 96 preps
Quick-DNA™ Fecal/Soil Microbe 96 Magbead Kit (includes ZR BashingBead™ Lysis Tubes)	D6012-FM	2 x 96 preps
Quick-DNA™ Fungal/Bacterial Microprep Kit	D6007	50 preps
Quick-DNA™ Fungal/Bacterial Miniprep Kit	D6005	50 preps
Quick-DNA™ Fungal/Bacterial Midiprep Kit	D6105	25 preps
Quick-DNA™ Fungal/Bacterial 96 Kit	D6006	2 x 96 preps
Quick-DNA™ Tissue/Insect Microprep Kit	D6015	50 preps
Quick-DNA™ Tissue/Insect Miniprep Kit	D6016	50 preps
Quick-DNA™ Tissue/Insect 96 Kit	D6017	2 x 96 preps
Quick-DNA™ Plant/Seed Miniprep Kit	D6020	50 preps
Quick-DNA™ Plant/Seed 96 Kit	D6121	2 x 96 preps
Quick-DNA™ Viral Kit	D3015 D3016	50 preps 200 preps
Quick-DNA™ Viral 96 Kit	D3017 D3018	2 x 96 preps 4 x 96 preps

Product	Cat. No.	Size
DNA Clean & Concentrator® -5 (uncapped columns)	D4003T D4003 D4004	10 preps 50 preps 200 preps
DNA Clean & Concentrator® -25 (uncapped columns)	D4005 D4006	50 preps 200 preps
DNA Clean & Concentrator® -100 (uncapped columns)	D4029 D4030	25 preps 50 preps
DNA Clean & Concentrator® -500 (uncapped columns)	D4031 D4032	10 preps 20 preps
ZR-96 DNA Clean & Concentrator®-5	D4023 D4024	2 x 96 preps 4 x 96 preps
Genomic DNA Clean & Concentrator®-10	D4010 D4011	25 preps 100 preps
Genomic DNA Clean & Concentrator®-25	D4064 D4065	25 preps 100 preps
ZR-96 Genomic DNA Clean & Concentrator®-5	D4066 D4067	2 x 96 preps 4 x 96 preps
Zymoclean™ Gel DNA Recovery Kit (uncapped columns)	D4001 D4001T D4002	50 preps 10 preps 200 preps
Zymoclean™ Large Fragment DNA Recovery Kit	D4045 D4046	25 preps 100 preps
Select-a-Size DNA Clean & Concentrator®	D4080	25 preps
Select-a-Size DNA Clean & Concentrator® MagBead	D4084 D4085	10 ml 50 ml
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**

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