





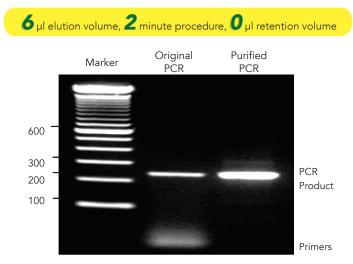
Most Popular Products from **Zymo Research**

Innovation. Pure & Simple.

DNA Clean-Up & Gel DNA Recovery

DNA Clean & Concentrator® - 5 Kit

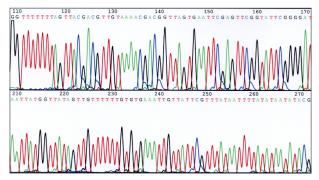
- Clean and concentrate up to 5 µg DNA and elute with ≥ 6 µl in as little as two minutes with 0 µl wash residue carryover.
- Eluted DNA is optimal for any down stream molecular biology application.



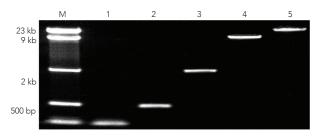
Clean & Concentrated DNA. DNA samples, such as the PCR products shown here, can be efficiently purified and concentrated using the DNA Clean & Concentrator®-5.

Zymoclean™ Gel DNA Recovery Kit

- Quick (15 minute) recovery of ultra-pure DNA from agarose gels into minimal volumes (≥ 6 μl).
- Eluted DNA is well suited for use in DNA ligation, sequencing, labeling, PCR, etc.



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.



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

GAMPLES AVAILAB

Product	VWR Part Number	Size	ZYMO REMEMBER
DNA Clean & Concentrator® -5	77001-152	50 preps.	Inquire
Zymoclean™ Gel DNA Recovery Kit	77001-144	50 preps.	Inquire



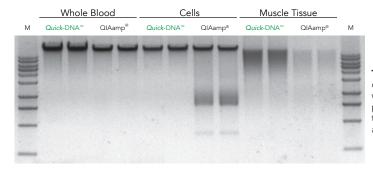




Genomic DNA Isolation

Quick-DNA™ Miniprep Plus Kit

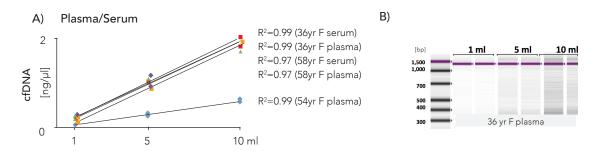
- Purify high-quality DNA easily and reliably from any sample source (biological fluids, cultured/monolayer cells, solid tissues, etc.).
- Zymo-Spin™ technology ensures DNA is ultra-pure and ready for all sensitive downstream applications such as qPCR, DNA-sequencing, arrays, and methylation analysis.



The Quick-DNA™ Miniprep Plus Kit yields highly concentrated DNA without RNA contamination when compared to the QlAamp® (Qiagen) utilizing porcine whole blood, HeLa cells, and bovine muscle tissue. The resulting DNA from each sample was analyzed in a 1% (w/v) TAE/agarose/EtBr gel.

Quick-cfDNA™ Serum & Plasma Kit

- High-quality DNA, including cell-free, is easily and robustly purified from up to 10 ml of serum/plasma and other biofluids.
- Zymo-Spin[™] Column technology enables elution of DNA in as little as 35 µl that is ready for all sensitive downstream applications such as qPCR and Next-Generation sequencing.



Cell-free DNA recovery scales linearly up to 10 ml using the *Quick*-cfDNA™ Serum & Plasma Kit.

(A) Graphs and (B) gel image show the linear recovery of cfDNA from human plasma and serum (healthy female donors), as measured by Agilent 2200 TapeStation® (in duplicates).

			SAMPLES AVALVA
Product	VWR Part Number	Size	ZJ MO RESERVE
Quick-DNA™ Miniprep Plus Kit	76175-652	50 preps.	Inquire
Quick-cfDNA™ Serum & Plasma Kit	77001-374	50 preps.	_







Plasmid DNA Purification

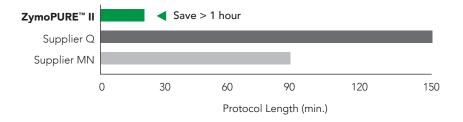
ZymoPURE™ Technology Overview

Our EZ-Load™ technology replaces slow gravity flow columns with rapid binding and washing using a vacuum or centrifuge. The EZ-Elute™ system makes time-consuming alcohol precipitation steps obsolete by enabling elution of highly concentrated plasmid DNA from a spin-column using a microcentrifuge. The EndoZero™ Spin-Column removes endotoxins with a simple 1 minute spin.



Simple 20 minute EndoZero™ Midi/Maxi preps





ZymoPURE™ Kit Comparison

Kit	Processing Time	Culture Volume	Elution Volume	Plasmid Yield	Endotoxins
Miniprep	≤ 15 minutes	≤ 5 ml	≥ 25 µl	100 µg	≤ 1 EU/µg
Midiprep	≤ 20 minutes	50 ml	≥ 100 µl	300 µg	≤ 0.025 EU/µg
Maxiprep	≤ 20 minutes	150 ml	≥ 200 µl	1.2 mg	≤ 0.025 EU/µg
Gigaprep	≤ 50 minutes	2.5 L	≥ 2 ml	10 mg	≤ 0.025 EU/µg







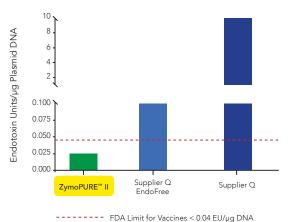
ZymoPURE™ Plasmid Kits (Mini, Midi, Maxi, Giga)

- Fastest: Simple 20 minute Midi/Maxi preps.
- Highest Yield: 6x more plasmid.
- Ultra-Pure: EndoZero $^{\text{\tiny{TM}}}$, vaccine grade $^{\text{\tiny{T}}}$, and transfection ready.

Highest Yield & Lowest Elution Volume



Ultra-pure Vaccine Grade Plasmid DNA



Maxiprep kit compared to two separate kits from Supplier Q.

Stated manufacturers' endotoxin levels for the ZymoPURE $^{\text{\tiny{TM}}}$ II



Endotoxins below FDA Limit for Vaccines

SAMPLES AVAILABLE

* Endotoxins <0.04 EU/ μg of plasmid DNA meets the FDA limit for vaccines

Product	VWR Part Number	Size	ZYMO RESE
ZymoPURE™ Plasmid Miniprep Kit	77001-478	50 preps.	Inquire
ZymoPURE™ II Plasmid Midiprep Kit	77001-396	25 preps.	Inquire
ZymoPURE™ II Plasmid Maxiprep Kit	77001-468	10 preps.	Inquire
ZymoPURE™ II Plasmid Gigaprep Kit	77001-472	5 preps.	-



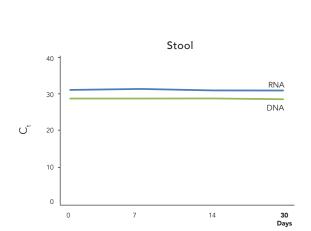




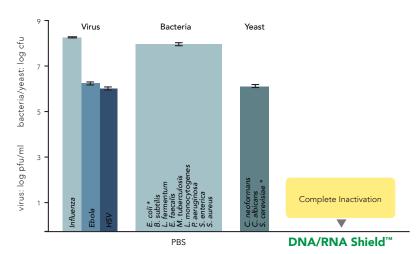
DNA/RNA Stabilization, Storage, and Transportation

DNA/RNA Shield™

- Nucleic acid preservation (at ambient temperature; cold-free) .
- Pathogen inactivation (bacteria, fungus, parasites & viruses).
- Streamlined purification (no reagent removal, universally compatible, automatable).



DNA and RNA in stool is effectively stabilized in DNA/RNA Shield™ at ambient temperature. Graphs show: spike-in DNA and RNA controls from stool purified at the indicated time points and analyzed by (RT)qPCR.



Viruses, bacteria and yeast are effectively inactivated by DNA/RNA Shield™. Samples containing the infectious agent (virus, bacteria, yeast) were treated for 5 minutes with DNA/RNA Shield™ or mock (PBS). Titer (PFU) was subsequently determined by plaque assay. Validated by: Influenza A - D. Poole and Prof. A. Mehle, Department of Medical Microbiology and Immunology, University of Wisconsin, Madison; Ebola (Kikwit) - L. Avena and Dr. A. Griffiths, Department of Virology and Immunology, Texas Biomedical Research Institute; HSV-1/2 - H. Oh, F. Diaz and Prof. D. Knipe, Virology Program, Harvard Medical School; E. coli, L. fermentum, B. subtilis, S. cerevisiae – Zymo Research).

*Disclaimer: This graph only displays results from $E.\ coli$ inactivation. Each microbe was tested independently and were combined into one graph for brevity. Bacterial cultures were grown between 10° - 10° cells and yest cultures were grown between 10° - 10° cells.

No Reagent Removal. Simple, direct purification using Zymo Research Purification Products*.



*Also compatible with most other commercial products

GAMPLES AVALLA

Product	VWR Part Number	Size	ZYMOMSEMEN
DNA/RNA Shield™	76020-420	50 ml	Inquire
DNA/RNA Shield™ (2X Concentrate)	76020-444	25 ml	_







DNA/RNA Shield™ Collection Devices



Blood Collection Tube

Evacuated blood tube (16 x 100 mm) filled with 6 ml of DNA/RNA Shield $^{\text{m}}$ for the direct collection of 3 ml whole-blood (human or animal).



Microbe & Tissue Lysis Tubes

2 ml collection tube (prefilled with 1 ml DNA/RNA Shield $^{\text{m}}$) and BashingBeads $^{\text{m}}$ for the collection and homogenization of microbial or tissue samples.



Fecal Collection Tube

15 ml container (prefilled with 9 ml DNA/RNA Shield $^{\text{m}}$) for the direct collection of up to 1 gram and/ or 1 ml stool. Collection spoon is included in the container screwcap.



Swab and Collection Tube

5 ml screwcap container (12 x 80 mm) filled with 1 ml DNA/RNA Shield $^{\text{m}}$ and a sterile swab for specimen collection.

Product	VWR Part Number	Size	ZIMO RESEARCH
DNA/RNA Shield™ - Blood Collection Tube	76020-434	50 Pack	-
DNA/RNA Shield™ - Fecal Collection Tube	76020-422	10 Pack	_
DNA/RNA Shield™ Lysis Tube (Microbe)	76020-426	50 Pack	-
DNA/RNA Shield™ Lysis Tube w/ Swab (Microbe)	76020-096	50 Pack	_
DNA/RNA Shield™ Lysis Tube (Tissue)	76020-098	50 Pack	_
DAVA (DAVA CI : LITTI C. L. O. C. II	76020-100	10 Pack (1 ml fill)	Inquire
DNA/RNA Shield™ - Swab & Collection Tube	76020-428	50 Pack (1 ml fill)	_







Microbial Analysis

ZymoBIOMICS® Microbial Community Standard

- Mock microbial community of well-defined composition.
- Ideal for the validation, optimization, and quality control of microbiomics and metagenomic workflows.
- Perfect for assessing bias of DNA extraction methods since it contains both tough and easy-to-lyse microbes.

ZymoBIOMICS®	Microbial	Community
DNA Standard		

- A DNA standard of well-defined composition.
- Ideal for the validation, optimization, and quality control of microbiomics and metagenomics workflows.
- The DNA has a wide GC range of 15% 85%.

- Ultra-pure, inhibitor-free DNA from many microbiomic sample types (feces, soil, water, biofilms, swabs, body fluid, etc.) that is ideal for all downstream applications including PCR, arrays, 16S rRNA gene sequencing, and shotgun sequencing.
- Innovative lysis system enables efficient and unbiased lysis of microbes including Gram-positive/negative bacteria, fungus, protozoans, and algae for accurate microbial community profiling.

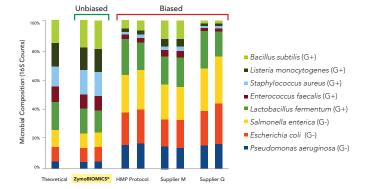
Quick-DNA™ Fecal/Soil Microbe Miniprep Kit

- Rapid methods for the isolation of inhibitor-free, PCRquality DNA from fecal, soil, and microbial samples in minutes including tough-to-lyse bacteria, fungi, algae, and protozoa.
- Zymo-Spin[™] Column and unique filtration technologies effectively removes PCR inhibitors from the DNA product.

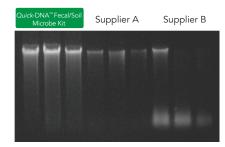
100%					
90%		Species	Avg. GC (%)	Gram Stain	gDN
80%		■ Pseudomonas aeruinosa	66.2	-	
70%		Escherichia coli	56.8	-	
60%		Salmonella enterica	52.2	-	
50%		Lactobacillus fermentum	52.8	+	
40%		■ Enterococcus faecalis	37.5	+	
30%		Syaphylococcus aureus	32.7	+	
20%		Listeria monocytogenes	38.0	+	
		Bacillus subtilis	43.8	+	
10%		Saccharomyces cerevisiae	38.4	Yeast	
0% Theoretical	DNA Standard	■ Cryptococcus neoformans	48.2	Yeast	

DNA from three Gram-negative bacteria, five Gram-positive bacteria, and two tough-to-lyse yeasts. The ZymoBIOMICS® Microbial Community Standards are perfect for assessing bias in popular extraction methods. The microbial standards are accurately characterized, with a wide GC range (15%-85%) and contain negligible impurities (<0.01%), enabling easy exposure of artifacts, errors, and bias in microbiomics or metagenomic workflows.

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The ZymoBIOMICS® DNA Miniprep Kit provides accurate representation of the organisms extracted from the ZymoBIOMICS® Microbial Community Standard.



Comparison of DNA yields from rat feces using the *Quick*-DNA™ Fecal/Soil Microbe Kit and kits from suppliers A and B. Equivalent amounts of feces were processed using each kit and then equal volumes of eluted DNA were analyzed in a 0.8% (w/v) agarose/ethidium bromide gel. Samples were processed in triplicate.

Product	VWR Part Number	Size	ZYWO RESERVA
ZymoBIOMICS® Microbial Community Standard	77001-842	10 Preps.	-
ZymoBIOMICS® Microbial Community DNA Standard	77001-846	2,000 ng	_
ZymoBIOMICS® DNA Miniprep Kit	77001-494	50 Preps.	Inquire
Quick-DNA™ Fecal/Soil Microbe Miniprep Kit	77001-814	50 Preps.	_





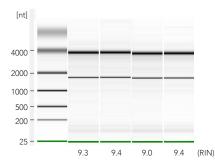


RNA Purification

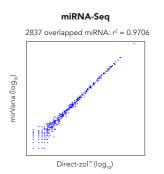
Direct-zol™ RNA Miniprep Kit

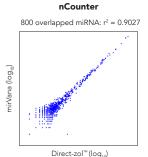
- High-quality (DNA-free) total RNA purified directly from samples stored in TRIzol®, TRI Reagent® and all other acidguanidinium-phenol based reagents.
- Eliminates phase separation and precipitation procedures.
- Efficient, non-biased purification of small and large RNAs from cells, tissues, biological liquids, in vitro transcripts, etc.





High RNA integrity number (RIN > 9; Bioanalyzer® (Aligent Technologies Inc.)) indicates high-quality RNA was purified from human epithelial cells using the Direct-zol™ RNA Kit.

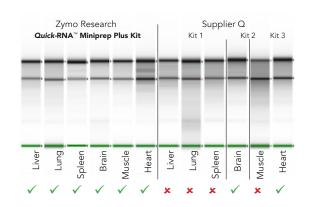




The non-biased RNA recovery from TRIzol® samples using the Direct-zol™ RNA Miniprep kit (compared to mirVana™, Ambion). Micro-RNA analysis was performed using miRNA-Seq (MiSeq®, Illumina) and a direct hybridization assay (nCounter®, Nanostring).

Quick-RNA $^{\text{\tiny{M}}}$ Miniprep Plus Kit

- High-quality total RNA (including small/micro RNAs) from all tissues, cells, whole blood, and biological fluids.
- Worry-free sample storage at ambient temperatures with provided DNA/RNA Shield™.
- DNA-free RNA is ready for use in any downstream application.



High-quality total RNA is isolated from various tissue types using the Quick-RNA™ Miniprep Plus kit. In comparison, RNA isolated from the same tissue types using three kits recommended by Supplier Q (Agilent 2200 TapeStation®; Red = low quality).

GAMPLES AVAILY

Product	VWR Part Number	Size	ZIMO RELEAS
Direct-zol™ RNA Miniprep Kit	76020-642	50 preps.	_
Direct-zol™ RNA Miniprep Plus Kit	76020-110	50 preps.	Inquire
Quick-RNA™ Miniprep Plus Kit	76020-636	50 preps.	_

 $TRIzol^{\otimes} \text{ and } TRI \text{ Reagent}^{\otimes} \text{ are registered trademarks of Molecular Research Center, Inc.} \\ U.S. \text{ Patent No. 9,051,563 B2 and other pending patents. Direct-zol^{\bowtie}} \text{ is a trademark of Zymo Research Corp.} \\$







RNA Clean-Up

RNA Clean & Concentrator™-5

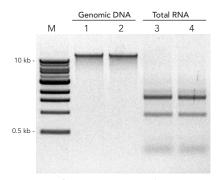
- Quick methods for cleaning and concentrating RNA.
- Zymo-Spin[™] Column/Plate technology allows minimal elution volumes.
- Ideal for purification of RNA from aqueous phase following acid phenol extraction.

		GEMPLES AVAIVA	
Product	VWR Part Number	Size	ZYMOR
RNA Clean & Concentrator™-5	76020-606	50 preps.	Inquire
RNA Clean & Concentrator™-5 w/ DNase I	76020-594	50 preps.	Inquire

DNA/RNA Co-purification

Quick-DNA/RNA™ Miniprep Plus

- Quick isolation and separation of genomic DNA and total RNA from a wide range of sources using Zymo-Spin™ column technology.
- DNA/RNA ready for (RT)PCR, Next-Generation sequencing, and hybridization.
- Omits the use of organic denaturants and proteases.



DNA and RNA purified using the Quick-DNA/RNA $^{\text{\tiny M}}$ Miniprep Kit. Genomic DNA (lane 1, 2) and total RNA (lane 3, 4) isolated from human epithelial cells (HCT 116) with the Quick-DNA/RNA $^{\text{\tiny M}}$ Miniprep Kit. M is a 1 kb DNA Marker (Zymo Research).

Product	VWR Part Number	Size
Quick-DNA/RNA™ Miniprep Plus Kit	77001-854	50 Preps.



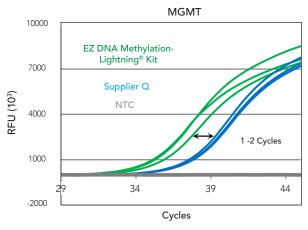




Epigenetics

EZ DNA Methylation-Lightning® Kit

- Fastest method for complete bisulfite conversion of DNA for methylation analysis.
- Ready-to-use conversion reagent is added directly to DNA.
- High-yield, converted DNA is ideal for PCR, MSP, array, bisulfite and Next-Generation sequencing.
- >99.5% conversion efficiency.



The EZ DNA Methylation-Lightning® Kit exhibits more efficient amplification resulting in earlier quantification cycles (Cg) than the comparable kit from Supplier Q.

ChIP DNA Clean & Concentrator® Kit

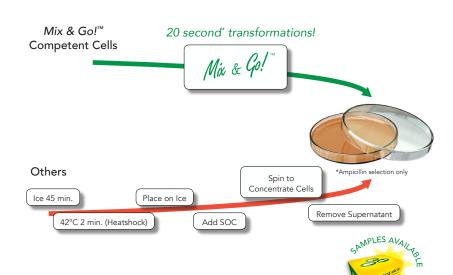
- Two minute DNA clean-up from any step in a standard ChIP protocol.
- DNA is ideal for PCR, arrays, DNA quantification, Southern blot analysis, sequencing, and other molecular applications.

Product	VWR Part Number	Size	ZI'MO ABBERROY
EZ DNA Methylation-Lightning® Kit	77001-648	50 rxns.	Inquire
ChIP DNA Clean & Concentrator® (capped columns)	77001-706	50 preps.	_

Competent Cells

Mix & Go!™ Competent Cells (Zymo 5α)

- Mix & Go!™ transformation procedure with transformation efficiencies of 10⁸ - 10⁹ transformants/µg of plasmid DNA.
- Simply add DNA and then spread. DNA transformation in as little as 20 seconds!
- Uses: bacterial transformations, DNA cloning, blue-white screening.



Product	VWR Part Number	Size	Zildi
Mix & Go! Competent Cells - Zymo 5α (10 x 100 μl)	76020-666	10 x 100 µl aliquots (10 tubes)	Inquire
Mix & Go! Competent Cells - Zymo 5α (96 x 50 μl)	76020-668	96 x 50 µl aliquots (12 x 8-tube strips)	_









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