





Our goal is to offer high-quality DNA and RNA purification products to help improve your workflows.

# Our technology, your advantages

Extracting high-quality DNA or RNA is the first crucial step in most workflows and is critical for determining any downstream application's success. Our goal is to equip customers with high-quality products to improve their workflows and obtain faster results.



#### **Diverse Portfolio**

We offer 500+ products encompassing different extraction technologies including magnetic beads, silica spin columns and filter plates, and salting out. These methods are available as different kits and configurations to cover wide range of sample types.



### Quality

We are ISO 9001:2015 certified and we ensure that our products are properly assembled, tested, recorded, stored, and shipped.



### **Customer Support**

We provide excellent pre- and post- sales support to enhance customer experience and satisfaction. We are available by phone, email or chat to ensure smooth adaptation of our product in customer workflows.



## **Cost Savings**

We offer cost-efficient, high-quality products. The end users will be benefited by the reduction in cost - either in reagent cost, time investment, or both.

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Request a free sample of any of the kits online at www.omegabiotek.com

## E.Z.N.A.® Plasmid DNA Mini Kit

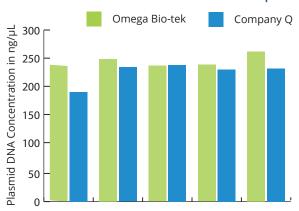
Isolation of 25 µg high quality plasmid DNA from 1-5 mL bacterial cultures



- Purification of plasmid DNA in less than 30 minutes
- No Phenol/chloroform extractions
- Spin and vacuum formats available
- Plasmid DNA is suitable for a variety of downstream applications

The E.Z.N.A. Plasmid DNA Mini Kit I is designed to isolate up to 25 µg of high quality plasmid DNA from 1-5 mL of bacterial cultures in 30 minutes or less. Plasmid DNA purification follows the alkaline-lysis method and is simplified with Silica Mini Column technology into three quick steps: Bind, Wash, and Elute. Purified plasmid DNA is ready for a wide variety of downstream applications, including routine screening, restriction enzyme digestions, DNA sequencing, cloning, transformation, and transfection.

#### Plasmid DNA Concentration Comparison



pGEM plasmid was purified from 4 mL DH5 $\alpha$  cultures harboring the plasmid and eluted in 50  $\mu$ L volume using kits from Omega Bio-tek and Company Q according to manufacturer's recommended protocols. Plasmid DNA concentration was determined by optical density measurements using Thermo Scientific's NanoDrop<sup>M</sup> 2000c system.

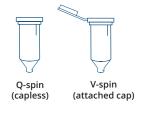
Product Description	Preps	Catalog No.
5.7.N.A.@ DI	5	D6942-00
E.Z.N.A.® Plasmid DNA Mini Kit l (Q-spin, capless)	50	D6942-01
	200	D6942-02

Product Description	Preps	Catalog No.
	5	D6943-00
E.Z.N.A.® Plasmid DNA Mini Kit I (V-spin, attached cap)	50	D6943-01
	200	D6943-02

Features	Specifications
Starting material	Bacterial cultures
Starting Amount	1-5 mL LB culture
Processing time	<30 minutes
Yield	15-25 µg for high copy-number; 0.1-5 µg for low copy-number
Throughput	1 - 24
DNA binding technology	Silica Mini Spin Column
Downstream Application	Cloning, sequencing, transformation, PCR, restriction digestion, ligation, in vitro transcription etc.
Processing Mode	Manual (Centrifugation or Vacuum)

#### **Available Formats**

The E.Z.N.A. Plasmid DNA Mini Kit I is available with 2 different types of columns: Q-spin columns are capless (D6942), while V-spin columns have an attached cap (D6943). Either column can be used with both the vacuum or centrifugation protocols.



#### Plasmid Quality Assessment

		- /	
Sample ID	A <sub>260</sub> /A <sub>280</sub>	Contigous Read Length (CRL) on Sanger sequencing	QV20+
1	1.87	911	920
2	1.89	899	908
3	1.91	888	884
4	1.88	897	908
5	1.85	899	900
6	1.85	906	911
7	1.86	900	911
8	1.87	904	914
9	1.87	895	907
10	1.87	895	910
11	1.89	891	899
12	1.87	909	917

pGEM plasmid DNA was purified using E.Z.N.A. Plasmid Mini Kit I and absorbance ratios were determined using Thermo Scientific's NanoDrop™ 2000c system. 5  $\mu$ L of the purified plasmid DNA was used in Sanger sequencing reaction and it was analyzed on an Applied Biosystems 3730XL. Purified plasmid samples had an average CRL of 899.5 bp and an average of 907 bases with a Phred score greater than 20 (≤ 1% probability of error in base calling).

### E.Z.N.A.® Plasmid Midi & Maxi Kits

Purification of high quality plasmid DNA using spin column technology



- Faster when using vacuum protocol
- Purification of plasmid DNA in < 60 min
- No phenol/chloroform extractions
- Spin and vacuum formats available

The E.Z.N.A. Plasmid Midi and Maxi Kits can isolate up to 250 µg and 1.2 mg of plasmid DNA from 50 mL and 200 mL bacterial cultures, respectively. These kits use a modified alkaline lysis method to lyse the cells and separate genomic DNA from plasmid DNA. Cellular debris is removed by centrifugation, and the protocol follows a simple "bind-wash-elute" procedure to deliver high quality plasmid DNA. The system not only eliminates the time-consuming isopropanol precipitation step required by gravity flow columns but also the need for expensive accessories. Purified plasmid DNA is suitable for automated fluorescent DNA sequencing (typical reads exceed 800 bp), restriction enzyme digestion, ligation, PCR, *in vitro* transcription, transformation, and other applications.

#### Plasmid DNA Yields from E.Z.N.A. Kits

E.Z.N.A. Plasmid DNA Midi Kit				
Sample	Culture Size (mL)	A <sub>260</sub> /A <sub>280</sub>	A <sub>260</sub> /A <sub>230</sub>	Yield (µg)
1	50	1.89	2.31	192.9
2	50	1.90	2.40	189.0
3	50	1.90	2.39	190.0
4	50	1.90	2.39	187.4
E.Z.N.A.® Plasmid DNA Maxi Kit				
1	250	1.90	2.29	715.2
2	250	1.90	2.34	697.0
3	250	1.90	2.35	706.5
4	250	1.90	2.32	701.3

DH5 $\alpha$  cells were transformed with pGEM vector, and replicate bacterial cultures were grown in either 50 mL or 250 mL of LB broth for 24 hours. The E.Z.N.A. Plasmid Midi Kit was used to isolate plasmid DNA from the 50 mL cultures and the E.Z.N.A. Plasmid Maxi Kit was used to isolate plasmid DNA from the 250 mL cultures. Yield was determined by optical density measurements with the NanoDrop 2000c.

#### Midi Kit

Features	Specifications
Starting material	20-50 mL LB culture with OD600 between 2 and 3; or equivalent
Plasmid type	High-copy, low-copy, cosmid DNA
Processing time	<60 minutes
Processing mode	Manual (centrifugation or vacuum)
Yield	100-250 µg for high copy-number; 10-50 µg for low copy-number
Throughput	1 - 24
DNA binding technology	Silica Midi Spin Column
Lysate clearance method	Centrifugation
Downstream Application	Cloning, sequencing, transformation, PCR, restriction digestion, ligation, in vitro transcription etc.

#### Maxi Kit

Features	Specifications
Starting material	50-200 mL LB culture with OD600 between 2 and 3; or equivalent
Plasmid type	High-copy, low-copy, cosmid DNA
Processing time	<60 minutes
Processing mode	Manual (centrifugation or vacuum)
Yield	600-1200 μg for high copy-number; 50-300 μg for low copy-number
Throughput	1 - 24
DNA binding technology	Silica Maxi Spin Column
Lysate clearance method	Centrifugation
Downstream Application	Cloning, sequencing, transformation, PCR, restriction digestion, ligation, in vitro transcription etc.

Product Description	Preps	Catalog No.
	2	D6904-00
E.Z.N.A.® Plasmid Midi Kit	25	D6904-03
	100	D6904-04

Product Description	Preps	Catalog No.
	5	D6922-01
E.Z.N.A.® Plasmid Maxi Kit	20	D6922-02
	100	D6922-04
	100	D6922-04

## E.Z.N.A.® FastFilter Plasmid Midi & Maxi Kits

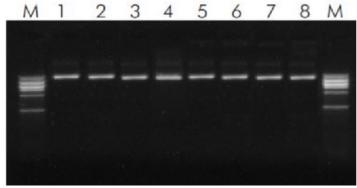
Isolation of high quality plasmid DNA in less than 40 minutes



- Cost and time savings compared to anion exchange technology
- Spin and vacuum formats available
- Lysate Clearance Syringes to rapidly clear bacterial lysates post-lysis

The E.Z.N.A. FastFilter Plasmid Midi Kit combines the convenience of spin columns with the speed of syringe filters to ease large-scale plasmid preparations. The system utilizes Lysate Clearance Filter Syringes instead of centrifugation to rapidly clear bacterial lysates postalkaline lysis and follows a simple "bind-wash-elute" procedure to deliver high quality plasmid DNA. The system uses centrifugation or vacuum technology for plasmid purification and eliminates the time-consuming alcohol precipitation required by gravity flow columns. Purified plasmid DNA is suitable for automated fluorescent DNA sequencing (typical reads exceed 800 bp), restriction enzyme digestion, ligation, PCR, in vitro transcription, transformation, and other applications.

#### Agarose Gel Electrophoretic analysis of purified plasmid



Plasmid DNA was isolated from eight 30 mL bacterial cultures grown 16 hours in LB medium using the E.Z.N.A. FastFilter Plasmid Midi Kit and eluted in 300 µL elution buffer. Plasmid DNA (1% of total purified DNA) was analyzed on a 0.8% agarose gel. Lanes 1-8 represent plasmid DNA from 8 different bacterial cultures and Lane M represents the 1 kb DNA ladder.

#### **Protocol Workflow**



Pellet bacterial cells by centrifugation



Resuspend Lyse Neutralize



Add Binding Buffer, Transfer lysate into Lysate Clearance Syringe



Clear lysate with Lysate Clearance Syringe



Pass lysate through DNA column with vacuum maniufold



Wash 3 times



Centrifuge to dry



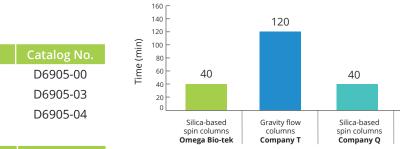
Elute by centrifugation

150

Gravity flow

Company Q

#### Processing time of plasmid DNA isolation kits



Total time in minutes required for plasmid DNA isolation from pelleting the bacterial cultures to eluting the plasmid using Omega Bio-tek E.Z.N.A. FastFilter Plasmid Maxi Kit and comparable products from other competitors.

Product Description	Preps	Catalog No.
E.Z.N.A. <sup>®</sup> FastFilter Plasmid Midi Kit	2	D6905-00
	25	D6905-03
	100	D6905-04

Product Description	Preps	Catalog No.
E.Z.N.A.® FastFilter Plasmid	2	D6924-00
Maxi Kit	25	D6924-03

### E.Z.N.A.® Tissue DNA Kit

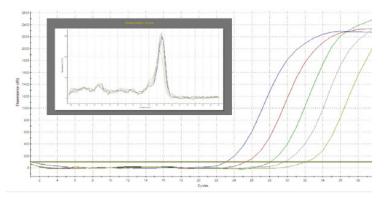
Fast & reliable isolation of DNA from a wide variety of sample sources



- DNA isolation in less than 20 minutes post-lysis
- Single kit for multiple sample types
- Optimized buffers for higher yields
- No phenol/chloroform extractions

The E.Z.N.A. Tissue DNA Kit offers a versatile and cost-effective method for the isolation of DNA from a wide variety of samples including fresh or frozen animal cultured cells and tissues, buccal swabs, whole blood, mouse tail snips, etc. The DNA purification process is simplified with Silica Mini Spin Column technology into four quick "lyse-bind-wash-elute" steps and can be accomplished in less than 20 minutes post-lysis. This convenient spin-column format avoids time-consuming steps like alcohol precipitation, use of toxic compounds such as phenol and chloroform and allows for multiple samples to be processed in parallel. DNA purified using this kit is ready for most downstream applications such as PCR, sequencing, genotyping, southern blot analysis and restriction enzyme digestion.

# Real-time PCR of Genomic DNA Isolation with E.Z.N.A. Tissue DNA Kit



Genomic DNA was isolated from 10 mg of rat kidney with Omega Biotek's E.Z.N.A. Tissue DNA Kit. Serial dilutions of recovered genomic DNA were used as templates for real-time PCR amplification of a 100 bp fragment of the GAPDH gene with SYBR® Green labeling. Each reaction was performed in triplicate. The fluorescence versus cycle number is plotted above and the 5 curves correspond to the input DNA template amounts of 10, 2, 0.4, 0.08, and 0.0016 ng.

Features	Specifications
Starting material	Tissues, cultured cells, mouse tail snips, par- affin-embedded tissues, whole blood, body fluids, buccal swabs
Starting Amount	30 mg, or 5 x 10 <sup>6</sup> cultured cells
Processing time	<20 min (post-lysis)
Elution Volume	100 - 200 μL
Throughput	1 - 24
DNA binding technology	Silica Mini Spin Column
Downstream Application	PCR, sequencing, genotyping, southern blot analysis and restriction enzyme digestion

#### Yield Comparison of E.Z.N.A. Tissue DNA Kit



Purified genomic DNA from 10 mg rat kidney tissue was isolated using kits from Company T, Company A, Company P, Company Q and the E.Z.N.A. Tissue DNA Kit following manufacturer's recommended protocols. 3% of eluted DNA was analyzed on a 0.8% agarose gel. M: Lambda-Hind III.

Product Description	Preps	Catalog No.
	5	D3396-00
E.Z.N.A.® Tissue DNA Kit	50	D3396-01
	200	D3396-02

### E.Z.N.A.® Plant DNA DS Kits

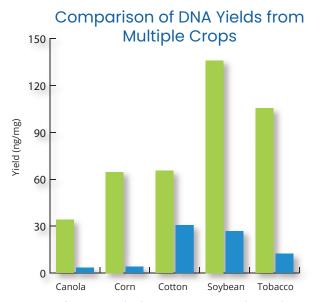
Isolation of genomic DNA from plant samples with high amounts of polysaccharides & polyphenols



- Homogenizer Columns allow for faster processing
- Reliable results from variety of sample types
- No organic extractions
- High quality DNA suitable for most applications

The E-Z 96® and E.Z.N.A. Plant DNA DS Kits are designed for the efficient recovery of genomic DNA up to 30 kb in size from fresh, frozen or dried plant tissue samples rich in polysaccharides, polyphenols, or those with a lower DNA content. Up to 50 mg wet tissue (or 15 mg dry tissue) can be processed in less than 1 hour. These systems combine the reversible nucleic acid-binding properties of the matrix with the speed and versatility of spin column technology to eliminate polysaccharides, phenolic compounds, and enzyme inhibitors from plant tissue lysates. Purified DNA is suitable for PCR, restriction enzyme digestion and hybridization applications.

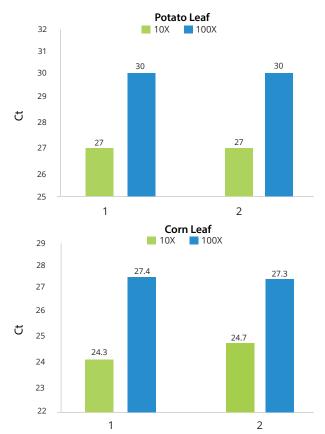
These procedures rely on the well-established properties of the cationic detergent, cetyltrimethyl ammonium bromide (CTAB), in conjunction with the unique binding system to increase yields and provide high quality DNA. The system eliminates the need for chloroform extractions traditionally associated with CTAB-based lysis methods. Samples are homogenized and lysed in a high salt buffer containing CTAB and with binding conditions optimized, DNA is purified using a DNA mini column. Salts, proteins, and other contaminants are removed to yield high quality genomic DNA.



40-50 mg of respective leaf tissue was extracted in triplicate according to the manufacturer's recommended protocols and eluted in 100  $\mu$ L. DNA was analyzed using fluorescent DNA-based quantification method. Total yield was divided by total tissue amount to show ng of DNA per mg of leaf tissue.

Features	Specifications
Starting material	Fresh, frozen, or dried plant tissue samples rich in polysaccharides, polyphenols, or those having a lower DNA content
Starting Amount	Up to 50 mg wet tissue or 15 mg dry tissue
Elution Volume	50-100 μL
Throughput	1 - 24
DNA binding technology	Silica Mini Spin Column

# qPCR analysis of purified DNA at 10-fold and 100-fold dilutions



Genomic DNA was extracted from 50 mg potato leaf and 30 mg corn leaf powder using the E.Z.N.A. Plant DNA DS Kit. 2  $\mu$ L of eluted DNA was diluted 10- and 100-fold and used as a template in a 20  $\mu$ L SYBR qPCR reaction. The  $\Delta$ Ct between 100-fold and 10-fold dilution is ~3 demonstrating good PCR efficiency without inhibition.

Product Description	Preps	Catalog No.
F 7 N A ® Dlant DNA DC Vit	5	D2411-00
E.Z.N.A.® Plant DNA DS Kit	50	D2411-01

# E.Z.N.A.® Universal Pathogen Kit

Isolation of pathogenic DNA and viral nucleic acids from a variety of sample sources



- Elute in as low as 15 μL
- Prefilled Disruptor tubes for faster sample homogenization
- No Phenol/chloroform extractions
- High quality DNA suitable for a variety of downstream application

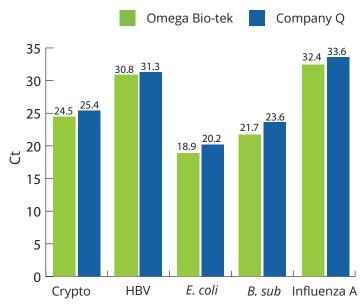
The E.Z.N.A. Universal Pathogen DNA Kit allows for rapid and reliable isolation of high quality host genomic DNA, gram-positive and gram-negative bacterial DNA, fungal spore DNA, yeast DNA, viral DNA and viral RNA from tissues, blood, urine, serum, whole blood, and fecal samples.

This kit incorporates Omega Bio-tek's Disruptor Tubes pre-filled with glass beads for faster and easier processing. The Disruptor Tubes allow for simultaneous homogenizaton and lysis of the samples and aid in effective disruption of difficult samples. No detergents are present in the initial lysis buffer, which eliminates foaming issues and provides optimal conditions for homogenization.

This unique buffer system does not require alcohol to bind nucleic acids, allowing for recovery of high quality DNA/RNA free of PCR inhibitors. Omega Bio-tek's MicroElute LE Spin Columns are used, which support elution volumes as low as 15 µL to obtain high concentration of the eluate.

Features	Specifications
Starting material	Tissue, urine, serum, and fecal sample
Starting Amount	25-30 mg tissue 250 μL fecal sample/serum/urine/blood
Processing Mode	Manual (Centrifugation or Vacuum)
Elution Volume	15-100 μL
DNA Binding Technology	Silica MicroElute Spin Column
Note	Host genomic DNA, gram positive and negative bacterial DNA, fungal spore DNA, and viral DNA and RNA

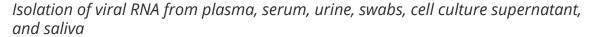
# qPCR Comparison from Different Extraction Methods



Human fecal samples suspended in PBS solution were spiked with corresponding organisms. Fecal samples were then processed according to each manufacturer's recommended protocols. qPCR was performed in triplicate for each sample using primers specific for the target organisms. Data shown are averages of triplicate reactions.

Product Description	Preps	Catalog No.
E.Z.N.A.® Universal Pathogen	5	D4035-00
DNA Kit	50	D4035-01

## E.Z.N.A.® Viral RNA Kit





- Viral RNA/DNA purification from wide variety of sample types
- Can be used to clean-up samples in Trizol
- No organic extractions

The E.Z.N.A. Viral RNA Kit is designed for the isolation of viral RNA and DNA from plasma, serum, cell culture supernatant and urine, swabs, and saliva. The procedure completely removes contaminants and enzyme inhibitors making viral RNA isolation fast, convenient and reliable. The purified nucleic acids are ready for direct use in downstream applications such as qPCR, RT-qPCR and more.

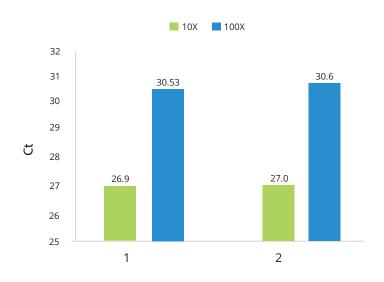
Features	Specifications
Starting material	plasma, serum, urine, swabs, cell culture supernatant, and saliva
Starting Amount	150 μL
Processing Mode	Manual (Centrifugation or Vacuum)
Elution Volume	20-50 μL
Throughput	1-24
Nucleic Acid Binding Technology	Silica Mini Spin Column

#### Some of the viruses\* detected using our viral kits.

Influenza A	Hepatitis E	Sheep pox virus	
Influenza B	Infectious Bronchitis virus	Murine norovirus 1	
West Nile virus	Porcine reproductive and respiratory syndrome Virus (PRRSV)	Canine distemper virus	
Middle East Respiratory Syndrome Corona- virus (MERS-CoV)	Insect- specific flaviviruses, mononegaviruses, and totiviruses	Rabies virus	
Zika virus (ZIKAV)	orf virus (ORFV)	Rotavirus	
SIV	Porcine circovirus type 2 (PCV2)	Coxsackievirus B3	
HIV	Arboviruses	Coxsackievirus A6	
Influenza A (H1N1)	Dengue virus	Avian leukosis virus subgroup J	
Hepatitis A virus types 1 and 3	GB virus C	Avian Encephalomyelitis Virus	
Hepatitis B virus	Bovine Viral Diar- rhea Virus (BVDV)	Crimean-Congo hemorrhagic fever virus	
SARS-CoV-2			

#### \*References available upon request

# Inhibitor-free viral RNA extraction using E.Z.N.A.\* Viral RNA Kit



 $25~\mu L$  of Zeptomatrix Influenza A/B Positive Control was spiked into  $125~\mu L$  serum samples and then viral RNA was extracted using the E.Z.N.A. Viral RNA Kit.  $2~\mu L$  of eluted RNA was used as a template in a  $20~\mu L$  SYBR qPCR reaction. The  $\Delta Ct$  between 100-fold and 10-fold dilution is ~3.3 demonstrating good PCR efficiency without inhibition.

Product Description	Preps	Catalog No.
	5	R6874-00
E.Z.N.A.® Viral RNA Kit	50	R6874-01
	200	R6874-02
E.Z.N.A.® Viral RNA Kit	50	R6874-01

### E.Z.N.A.® Total RNA Kit I

Isolation of total RNA from cultured eukaryotic cells & soft tissues



- RNA extraction in 20 minutes or less
- No phenol/ chloroform extractions
- Spin and vacuum formats available
- Purified RNA suitable for a variety of downstream applications

The E.Z.N.A. Total RNA Kit I provides a simple and rapid method for the isolation of up to 100  $\mu$ g total RNA from cultured eukaryotic cells and soft tissues. Multiple samples of up to 1 x 10<sup>7</sup> eukaryotic cells or 30 mg of tissue can be processed in parallel in fewer than 20 minutes. Purified RNA can be used in many downstream applications such as RT-PCR, qRT-PCR, Northern blotting, nuclease protection assay, microarrays, *in vitro* translation, and next-generation sequencing.

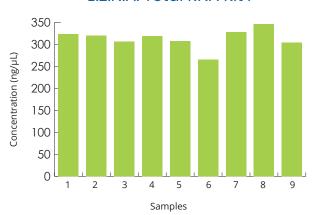
Features	Specifications
Starting material	Cultured eukaryotic cells and soft tissues
Starting Amount	<1 x 10 <sup>7</sup> cells or 30 mg tissue
Processing Mode	Manual (Centrifugation or Vacuum)
Elution Volume	40-70 μL
Throughput	1-24
RNA Binding Technology	Silica Mini Spin Column
Binding Capacity	100 μg
Downstream Application	PCR, qPCR, real-time RT-PCR, microarray, Northern blot, poly-A purification

#### **Expected RNA Yield from Various Samples**

Source	Sample Size	RNA Yield (µg)
Brain	10 mg	10
Kidney	10 mg	30
Liver	10 mg	45
Heart	10 mg	5
Spleen	10 mg	33
Lung	10 mg	12
Pancreas	10 mg	40
Thymus	10 mg	20
IC-21	1x10 <sup>6</sup> cells	12
HeLa	1x10 <sup>6</sup> cells	15
HEK-293	1x10 <sup>6</sup> cells	10
HIN3T3	1x10 <sup>6</sup> cells	15

Expected RNA yields from tissue samples and cultured cell types with the E.Z.N.A. Total RNA Kit I.

# Total RNA Concentration Extracted Using E.Z.N.A. Total RNA Kit I



Total RNA was isolated from 2.5 x  $10^6$  HEK-293 cultured cells with Omega Bio-tek's E.Z.N.A. Total RNA Kit I with an elution volume of 50  $\mu$ L. RNA concentrations were quantified with Thermo's NanoDrop 2000c.

Product Description	Preps	Catalog No.
	5	R6834-00
E.Z.N.A.® Total RNA Kit I	50	R6834-01
	200	R6834-02

# E.Z.N.A.® Cycle Pure Kit

Rapid purification of single- or double-stranded DNA from PCR or other enzymatic reactions



- Purification of PCR products in less than 10 minutes
- No Phenol/chloroform extractions
- Spin and vacuum formats available
- High quality DNA suitable for a variety of downstream application

The E.Z.N.A. Cycle-Pure Kit is designed for the rapid purification of single or double-stranded DNA from PCR and other enzymatic reactions. The system follows a "bind-wash-elute" procedure and completely removes primers, nucleotides enzymes, salts, and other impurities from a DNA sample. This convenient spin-column format eliminates the need for expensive resins or toxic organic compounds such as phenol and chloroform, thereby making it possible to process multiple samples in parallel. Purified DNA can be used in T-A ligations, sequencing, restriction enzyme digestion, and various other labeling reactions.

Features	Specifications	
Starting material	ssDNA, dsDNA, PCR products	
Processing Mode	Manual (Centrifugation or Vacuum)	
Processing time	<10 minutes	
Elution Volume	30-50 μL	
Throughput	1-24	
DNA binding technology	Silica Mini Spin Column	
DNA recovered	>90% recovery, 100 bp to 10 kb	
Downstream Application	T-A ligations, sequencing, restriction enzyme digestion, and various other labeling reactions	

#### Quality Assessment through Sanger Sequencing

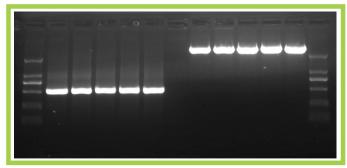
Sample	Contiguous Read Length	Average Signal Intensity
1	446	4583
2	446	4543.25
3	472	2768
4	445	3748.25
5	446	4397.25
6	446	4205
7	473	3329.50
8	454	2562.25

500 bp amplicon was purified with the E.Z.N.A. Cycle Pure Kit was used in a 5  $\mu L$  Sanger sequencing reaction. DNA was analyzed on an Applied Biosystem 3730XL.

Product Description	Preps	Catalog No.
	5	D6492-00
E.Z.N.A.® Cycle Pure Kit (V-spin, attached cap)	50	D6492-01
	200	D6492-02

# Omega Bio-tek's E.Z.N.A. Cycle Pure Kit vs. the Competition

Company T
Company A
Company Q
Company P
Omega Bio-tek
Company T
Company A
Company A
Company A



500 bp and 5 kb DNA fragments were purified with 4 different competitor's kits and Omega Bio-tek's E.Z.N.A. Cycle Pure Kit. 10% of eluted product was analyzed on a 0.8% agarose gel and run with a DL2000 DNA ladder.

### E.Z.N.A.® Gel Extraction Kit

Rapid recovery of DNA fragments > 100 bp from agarose gels in 15 minutes



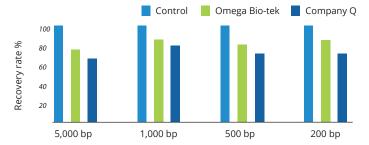
- DNA recovery from an agarose gel in 15 min
- Visual determination of optimum DNA binding for higher yields
- No phenol/chloroform extractions
- Spin and vacuum formats available
- High quality DNA suitable for a variety of downstream applications

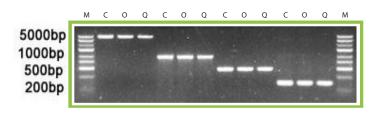
The E.Z.N.A. Gel Extraction Kit uses spin-column technology to purify DNA fragments ranging from 100 bp to 10 kb from all grades of agarose gels with high recovery (> 80%). The kit uses a specialized binding buffer system that not only dissolves the gel slice and binds to the spin column but also includes a pH indicator for a visual representation of optimal pH for DNA binding. The bind step is followed by three rapid wash steps and DNA is eluted with deionized water or elution buffer. Purified DNA is ready for a variety of downstream applications such as ligations, PCR amplification, restriction enzyme digestion, cloning, and various labeling reactions.

The E.Z.N.A. Gel Extraction Kit uses the proprietary HiBind® spin-column technology to purify DNA fragments ranging from 100 bp to 10 kb from all grades of agarose gels with high recovery (> 80%). The kit uses a specialized binding buffer system that not only dissolves the gel slice and binds to the spin column but also includes a pH indicator for a visual representation of optimal pH for DNA binding. The bind step is followed by three rapid wash steps and DNA is eluted with deionized water or elution buffer. Purified DNA is ready for a variety of downstream applications such as ligations, PCR amplification, restriction enzyme digestion, cloning, and various labeling reactions.

Features	Specifications	
Starting material	Agrose gel slice	
Starting Amount	Up to 25 µg DNA	
Processing Mode	Manual (Centrifugation or Vacuum)	
Processing time	<15 minutes	
Elution Volume	30-50 μL	
Throughput	1-12	
DNA binding technology	Silica Mini Spin Column	
DNA recovered	>80% recovery, 100 bp to 10 kb	
Downstream Application	Cloning, <i>in vitro</i> Transcription, Nucleic Acid Labeling, PCR, Real-Time Quantita- tive PCR (qPCR), Sequencing, Southern Blotting	

Product Description	Preps	Catalog No.
E.Z.N.A.® Gel Extraction Kit	5	D2500-00
	50	D2500-01
	200	D2500-02





DNA ladder and 4 different fragment sizes (200 bp, 500 bp, 1 kb, and 5 kb) were recovered using Omega Bio-tek's E.Z.N.A. Gel Extraction Kit and a comparable kit from Company Q following manufacturer's recommended protocols. DNA was analyzed on a 2% TBE agarose gel with the respective companies eluate being compared to the original amount used in the gel extraction procedure. M: size marker; C: control; O: Omega Bio-tek; Q: company Q. The concentration of the recovered DNA was determined by optical density measurements using Thermo Scientific's NanoDrop™ 2000c system. The purified DNA normalized to input amount is shown above.



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