mdi

Membrane Technology

BIOTECH

PRODUCT GUIDE

Company Profile

Advanced Microdevices (**mdi**) is a leader in innovative membrane technologies. Starting from a single person R&D operation in 1976, **mdi** has developed into a dedicated team of 1000 plus with more than 800,000 products.

The company's core competence is its ability to develop new membrane technologies and innovate existing ones to deliver advantages to the customer for high end purification and separation applications in a wide range of industries such as pharmaceuticals, biopharmaceuticals, biotechnology, food and beverage, hospitals, and immunodiagnostics.

As membranes end up being incorporated into user friendly devices, plastic design, moulding and sealing technologies become an integral part of the chain to deliver value to the customer. Realizing this, **mdi** has grown into a vertically integrated company that helps deliver prototypes rapidly for quicker conversion to products for the market.

Over the years **mdi** has created a position for itself by developing latest technologies at low cost and commercializing internationally accepted products at competitive prices. **mdi** product range includes more than 80,000 products with many more in the pipeline at various stages of Research and Development. Products are exported to over 50 countries worldwide, including major exports to USA, Western Europe, China and South Korea.

Strong R&D capabilities have propelled **mdi** to the position of technology leader in immunodiagnostic membranes and materials worldwide. **mdi** produces the most consistent Nitrocellulose membranes for Rapid Immunodiagnostic Tests.

mdi's modern GMP facilities with large ISO 7 Clean Areas more than meets the required standards. The products are manufactured in ISO 9001 certified facility with the help of trained manpower meeting or exceeding industry standards. Many **mdi** products are recognized as the best available in the world.

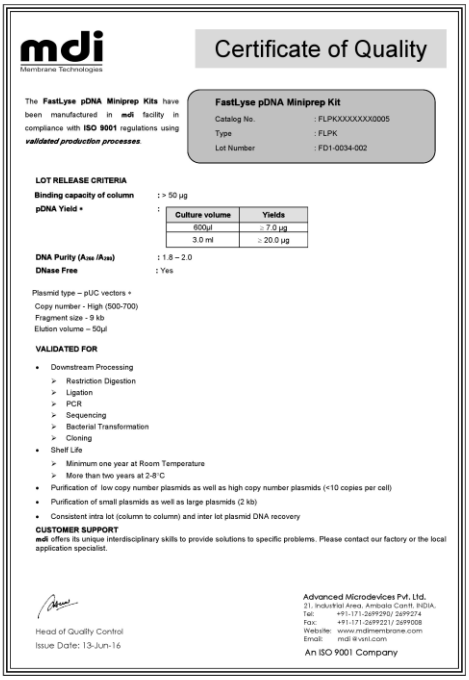
mdi has a strong pipeline of new products constantly being developed in its well equipped R&D labs.

Existing Facility (100,000 sq. ft.)

New GMP Facility (100,000 sq. ft.)

Contents

Quality at mdi



mdi
Membrane Technologies

Certificate of Quality

The **FastLyse pDNA Miniprep Kits** have been manufactured in **mdi** facility in compliance with **ISO 9001** regulations using ***validated production processes.***

FastLyse pDNA Miniprep Kit

Catalog No. : FLPKXXXXXXX0005
Type : FLPK
Lot Number : FD1-0034-002

LOT RELEASE CRITERIA

Binding capacity of column : > 50 µg
pDNA Yield * :

Culture volume	Yields
600µl	≥ 7.0 µg
3.0 ml	≥ 20.0 µg

DNA Purity (A_{260} /A_{280}) : 1.8 – 2.0
DNase Free : Yes

Plasmid type – pUC vectors *
Copy number - High (500-700)
Fragment size - 9 kb
Elution volume – 50µl

VALIDATED FOR

- Downstream Processing
  - Restriction Digestion
  - Ligation
  - PCR
  - Sequencing
  - Bacterial Transformation
  - Cloning
- Shelf Life
  - Minimum one year at Room Temperature
  - More than two years at 2-8°C
- Purification of low copy number plasmids as well as high copy number plasmids (<10 copies per cell)
- Purification of small plasmids as well as large plasmids (2 kb)
- Consistent intra lot (column to column) and inter lot plasmid DNA recovery

CUSTOMER SUPPORT
mdi offers its unique interdisciplinary skills to provide solutions to specific problems. Please contact our factory or the local application specialist.

Head of Quality Control
Issue Date: 13-Jun-16

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An ISO 9001 Company

"**mdi** strives to provide to its customer, products and services of highest standards possible, consistently superior and more satisfying than what is available anywhere else."

This starts right at the design stage. A careful comparison of user requirements and products available from other manufacturers help to distinguish between an acceptable product from an excellent one.

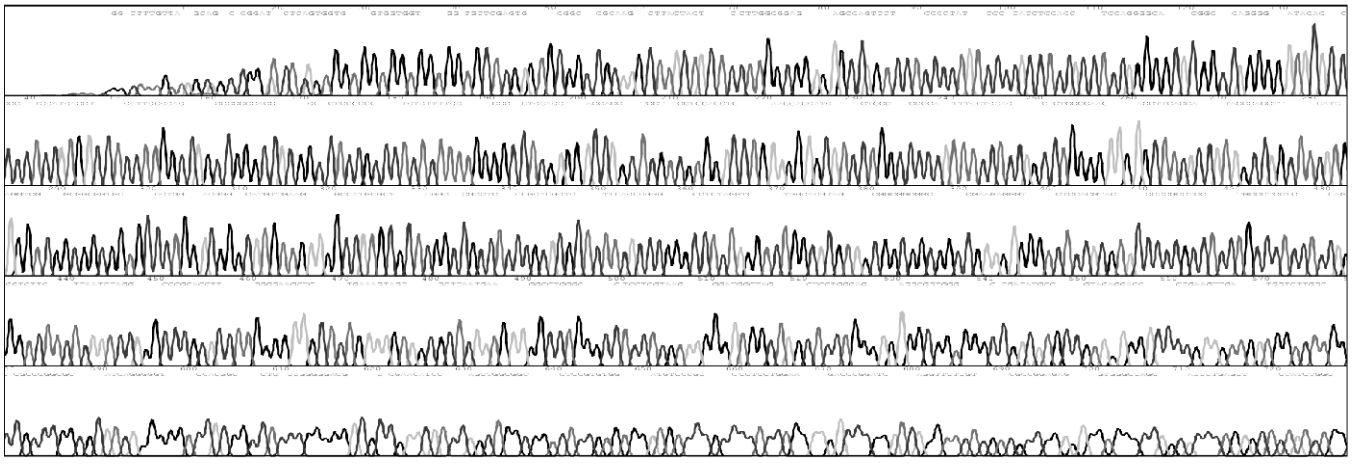
The ability to do so has resulted in a driving force that allows us to develop high technology products such as nucleic acid purification kits with unique performance advantages with respect to major user concerns such as yield, purity, consistency (intra lot as well as inter lot) , processing time, binding capacities and shelf life. The kits have been validated to perform as per pre-determined specifications for a variety of downstream applications.

A well equipped test lab with UV spectrophotometer, fluorometers, UV transilluminator, gel electrophoresis, PCR, RT-PCR etc. helps validate these unique innovations.

ISO – 9001: 2008 Certified Quality Management System , careful selection of starting material, validated production processes and testing procedures based on regulatory standards ensure consistently high quality products.

The kits undergo stringent quality control tests and are released for sale only after review and approval of data based on compliance to pre-determined test specifications.

All **mdi** products are accompanied with a certificate of quality.



High Purity DNA for Automated Sequencing

Sequencer: ABI Prism®

ABI Prism is the registered trade mark of Applied Biosystems

Innovative Technologies for Nucleic Acid Purification

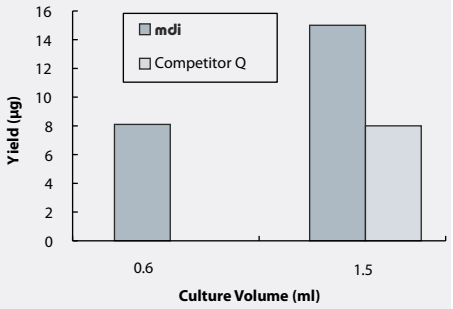
mdi introduces a major breakthrough in the field of nucleic acid purification through its latest research. These special kits offer extremely high yields in much reduced process time while effectively addressing other user concerns such as purity, yields, consistency and shelf life.

mdi Fastlyse pDNA Miniprep Kits

Unique Performance Advantages

- Fastest pDNA isolation in just 10 minutes
- No pellet formation and resuspension steps
- Works with very low culture volumes of upto **600µl**
- Very high binding capacity of upto 50µg
- Very high yields with low elution volumes
- Very high intra and inter lot consistency

Higher Yield with Less Culture Volume

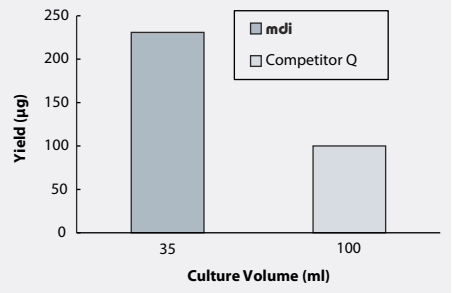


mdi Quanta Kits For Large Scale Plasmid Purification

Unique Performance Advantages

- Fastest large scale pDNA Isolation in just 30 minutes
- Lesser number of operating steps
- Very high binding capacity
- No precipitation required for desalting
- Higher yields with less culture volume
- Highly concentrated, ultrapure pDNA isolation in very low elution volumes
- High intra as well as inter lot consistency

Higher Yield with Less Culture Volume

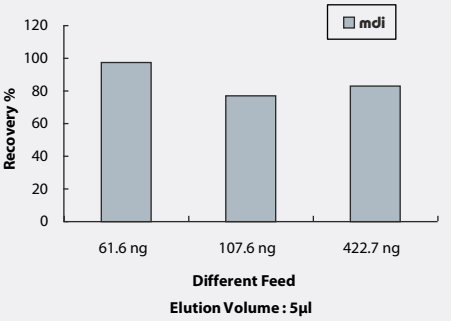


mdi Nano PCR & Gel Extraction Kits

Unique Performance Advantages

- Fastest DNA Purification in just 5 minutes
- High DNA Recovery from even low feed quantities
- Highly concentrated DNA in very low elution volumes
- Easy purification of large sized fragments without shearing
- Suitable for all type of downstream applications

High Concentration Recovery



Plasmid DNA Isolation Kits

Plasmids are extra chromosomal DNA molecules capable of replicating independently of the chromosomal DNA. This genetic material is ubiquitous in bacteria and because of its special ability to move genes from cell to cell, has become a versatile tool for both researchers and scientists involved in life sciences research. There are several concerns related to researchers such as yields, purity, processing time, binding capacity, consistency and shelf life.

mdi pDNA isolation kits offer many unique advantages with respect to all these issues. The following selection chart will help you choose the most suitable kit for your application.

Selection Chart

	pDNA Isolation kits	Purity A_{260}/A_{280}	Culture volume	Yields	Processing Time	Endotoxin Levels	Applications
Small Scale Plasmid DNA Kits	FastLyse pDNA Miniprep Kit	1.8-2.0	600µl – 5 ml	Upto 25µg	10 minutes	NA	• In-Vitro Transcription • In-Vitro Translation • High quality sequencing • Cloning • Probe Generation • PCR • Restriction Digestion • Bacterial Transformation • Ligation • Transfection •Gene Silencing • Microinjection • Library construction
	pDNA Miniprep Kit	1.8-2.0	1 ml -5ml	Upto 25µg	30 minutes	NA	
	Endotoxin Free pDNA Miniprep Kit	1.8-2.0	1ml - 5 ml	Upto 25µg	30 minutes	< 0.1 EU/g	
Large Scale Plasmid DNA Kits	Express 96 well pDNA Kit	1.8-2.0	1 ml -5ml	Upto 25µg/well	45 minutes	NA	
	Quanta Midi Kit	1.8-2.0	25 – 35 ml	Upto 250µg	30 minutes	NA	
	Quanta Maxi Kit	1.8-2.0	100-130ml	Upto 1000µg	30 minutes	NA	
	Quanta Mega Kit	1.8-2.0	500 ml	Upto 2500µg	50 minutes	NA	
	Quanta Giga Kit	1.8-2.0	2.5 litre	Upto 10000µg	1 hr	NA	
	Endotoxin Free Quanta Midi Kit	1.8-2.0	25-35 ml	Upto 250µg	30 minutes	< 0.1 EU/g	
	Endotoxin Free Quanta Maxi Kit	1.8-2.0	100-130ml	Upto 1000µg	30 minutes	< 0.1 EU/g	
	Endotoxin Free Quanta Mega Kit	1.8-2.0	500ml	Upto 2500µg	50 minutes	< 0.1 EU/g	
	Endotoxin Free Quanta Giga Kit	1.8-2.0	2.5 litre	Upto 10,000µg	1 hr	< 0.1 EU/g	

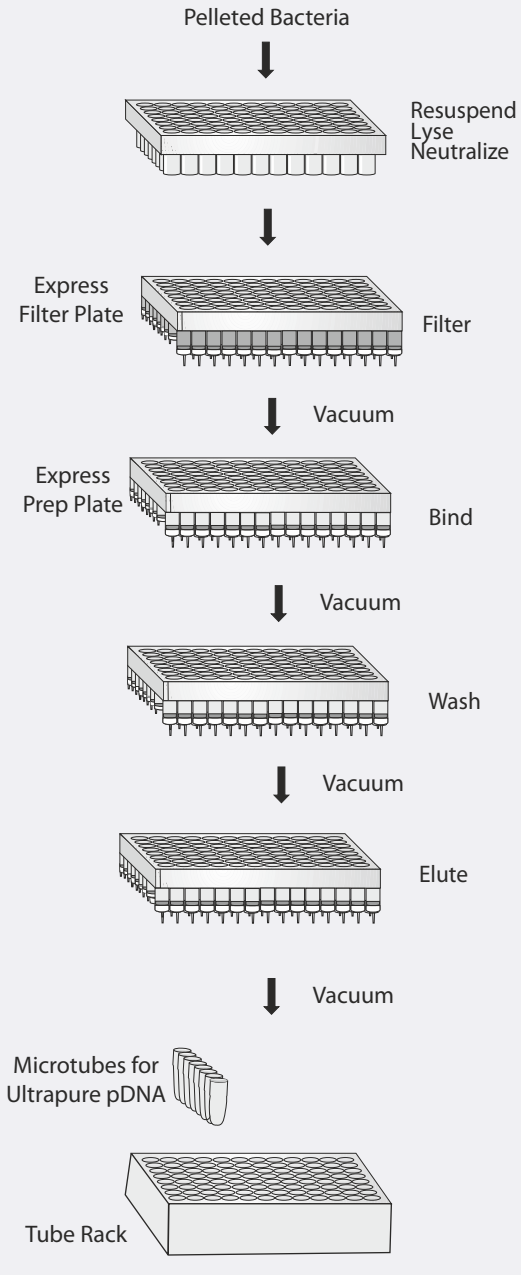
Plasmid DNA Isolation Kits: Process Flow

Small Scale Plasmid DNA Isolation Kits

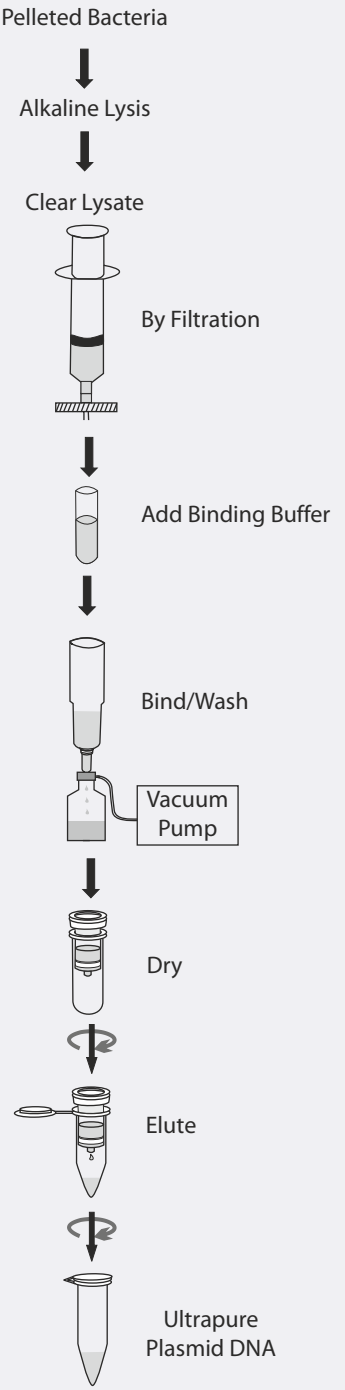
mdi Fastlyse pDNA Miniprep Kit (upto 25µg)	**mdi pDNA Miniprep Kit (upto 25µg)**	**mdi Endotoxin Free pDNA Miniprep Kit (upto 25µg)**
Overnight Bacterial Culture	Overnight Bacterial Culture	Overnight Bacterial Culture
Lyse & Neutralize	Pellet Formation	Pellet Formation
Bind & Wash	Resuspend Lyse Neutralize	Resuspend Lyse Neutralize
Elute	Bind	Remove Supernatent in separate tube and add buffer MB
Ultrapure pDNA	Wash	Bind
	Dry	Wash with Buffer MPW, MW and EF Separately
	Elute	**Dry**
	Ultrapure pDNA	Elute → Ultrapure Endotoxin Free pDNA

Large Scale Plasmid DNA Isolation Kits

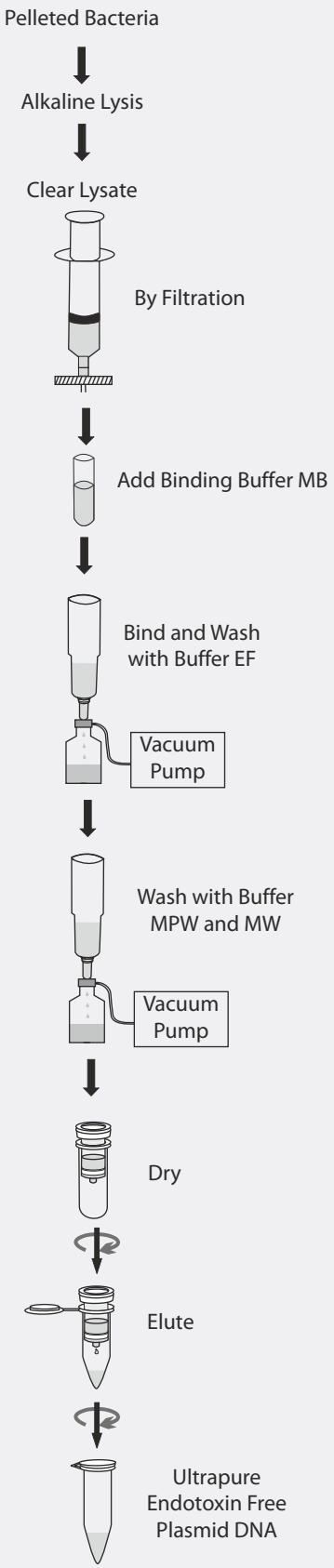
mdi Express 96 well pDNA Kit (upto 25 µg/well)



mdi Quanta Midi Kit (upto 250µg)

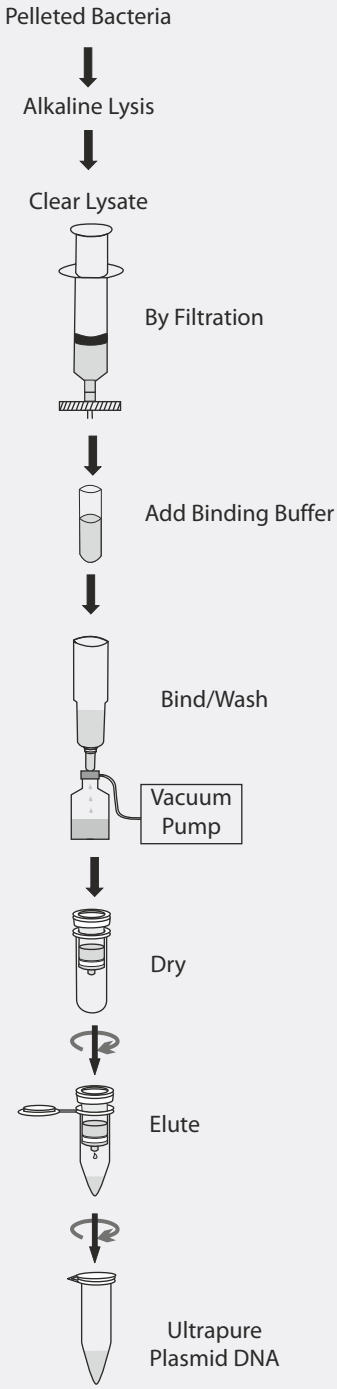


mdi Endotoxin Free Quanta Midi Kit (upto 250µg)

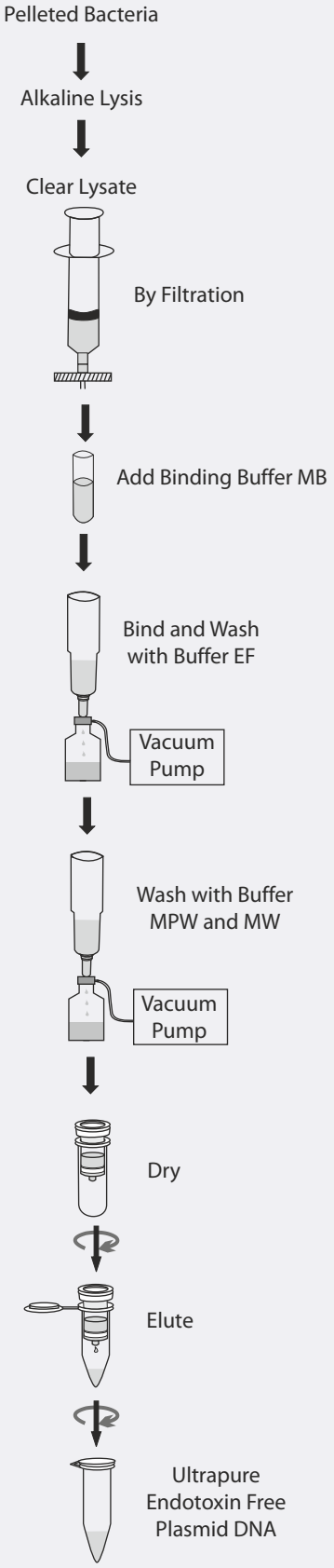


Large Scale Plasmid DNA Isolation Kits

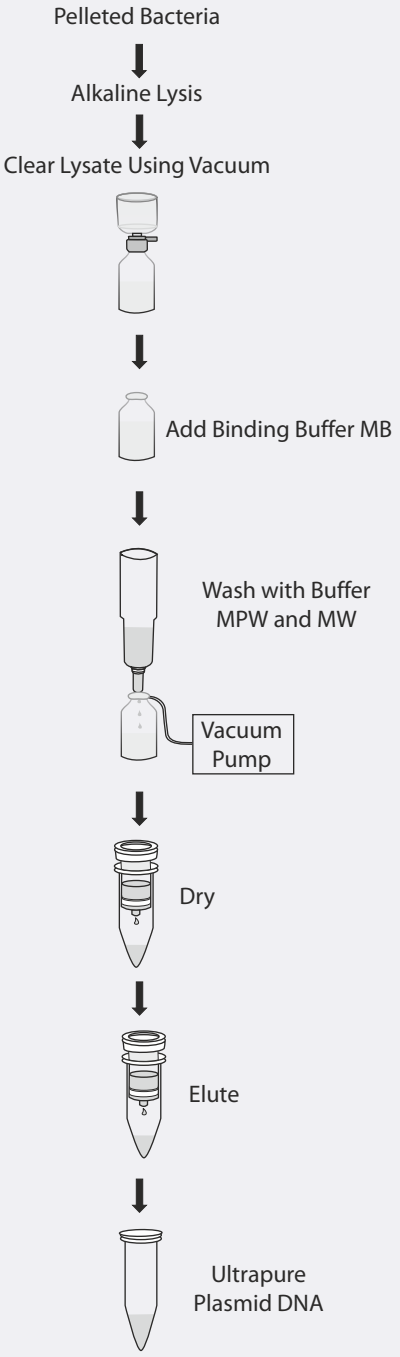
mdi Quanta Maxi Kit (upto 1mg)



mdi Endotoxin Free Quanta Maxi Kit (upto 1mg)

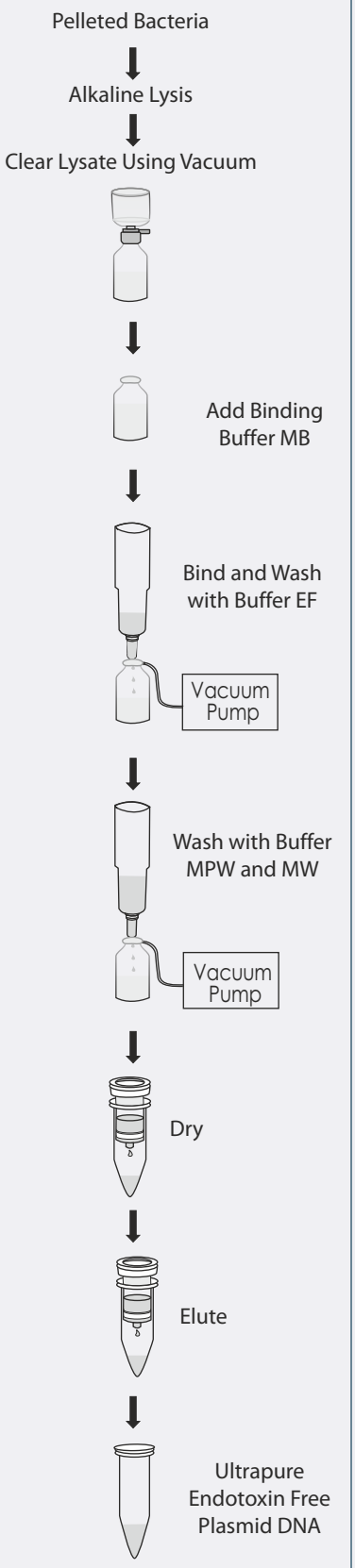


mdi Quanta Mega Kit (upto 2.5mg)

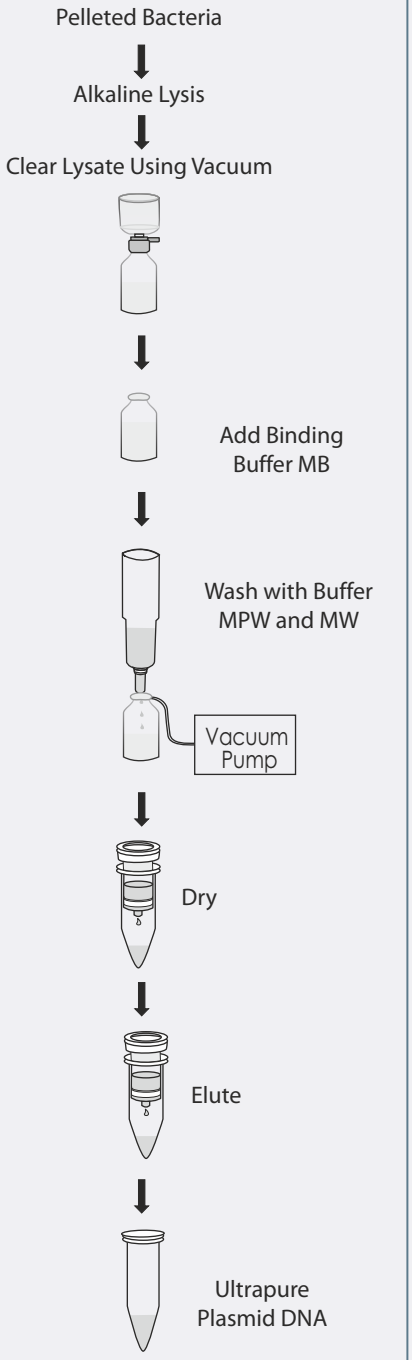


Large Scale Plasmid DNA Isolation Kits

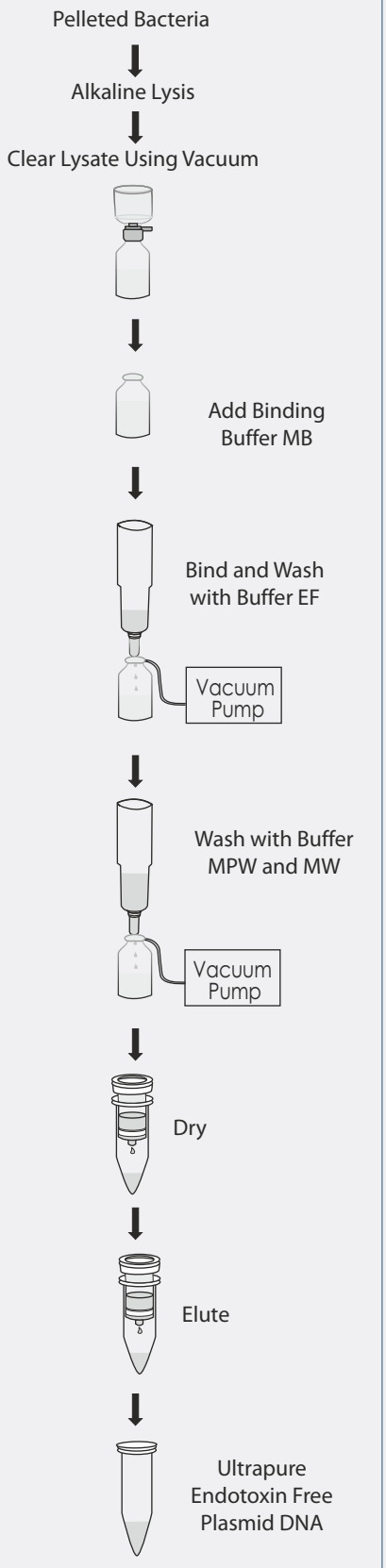
mdi Endotoxin Free Quanta Mega Kit (upto 2.5mg)



mdi Quanta Giga Kit (upto 10mg)



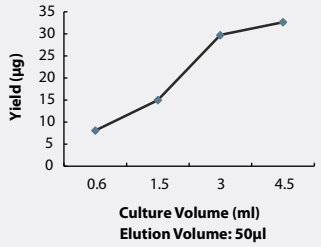
mdi Endotoxin Free Quanta Giga Kit (upto 10mg)



FastLyse pDNA Miniprep Kit

The Next Level in pDNA Isolation (In just 10 minutes)

Yield vs Culture Volume



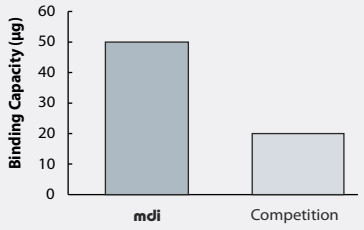
Unique Performance Advantages

- Fastest pDNA isolation in just 10 minutes
- Works with very low culture volumes (**600µl**)
- No pellet formation and resuspension steps
- Very high binding capacity of upto 50µg
- Very high yields with low elution volumes
- Very high intra lot and inter lot consistency

Unique Technology

Direct pDNA isolation from 600µl culture without any pelleting and resuspension. A unique soft pellet formation step allows ideal lysis conditions resulting in very high yield even with larger culture volumes of upto 5ml, helps reduce process time and makes it ideal for plasmid screening.

Very High Binding Capacity



Downstream Applications

- Library construction
- Restriction Digestion
- Cloning
- Ligation
- Bacterial Transformation
- PCR
- Automated Sequencing
- Probe Generation
- Microinjection

Specifications

- **pDNA Binding Capacity :** 50 µg
- **pDNA Yield :** Upto 25 µg
- **Minimum Culture Volume :** 600 µl
- **Elution Volume :** ≥ 30 µl
- **Total Time Taken :** 10 minutes

Purity

Ultrapure Plasmid DNA: A_{260} / A_{280} = 1.8-2.0

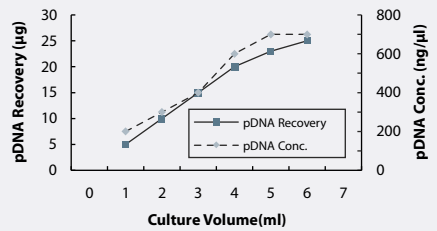
Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
FastLyse pDNA Miniprep kit	FLPK					50	0050
						250	0250

Example:

FLPK	XX	XX	XX	X	0250

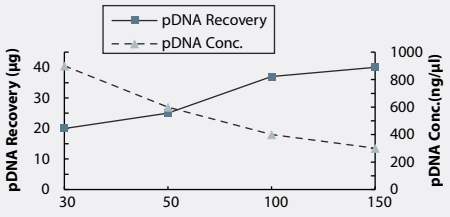
ORDERING INFORMATION

Culture Volume vs pDNA Recovery and Concentration

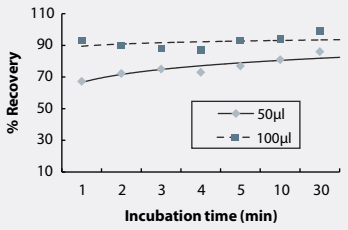


Elution Volume: 50µl

Elution volume vs pDNA Recovery and Concentration



Incubation time vs % Recovery



pDNA Miniprep Kit

(In Less Than 30 Minutes)

Types Available

- pDNA Miniprep Kit
- Endotoxin Free pDNA Miniprep Kit: Certified for very low endotoxin levels (<0.1 EU/µg)

Unique Performance Advantages

- High Binding Capacity ≥ 25µg
- High pDNA yield and purity
- Highly concentrated yields in low elution volumes
- No precipitation required for desalting
- High intra & inter lot consistency

Downstream Applications

- Automated Fluorescent Sequencing
- Radioactive Sequencing
- Restriction Digestion
- Transformation / Transfection
- Cloning
- PCR
- Ligation
- Probe Generation
- Microinjection

Specifications

pDNA Binding Capacity : ≥ 25 µg
pDNA Yield : Upto 25 µg
Culture Volume : 1-5 ml
Minimum Elution Volume : ≥ 30 µl
Total Time Taken : 25 minutes

Purity

Ultrapure Plasmid DNA: $A_{260} / A_{280} = 1.8\text{-}2.0$

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
pDNA Miniprep Kit	MIPK
Endotoxin free pDNA Miniprep kit	EFPK

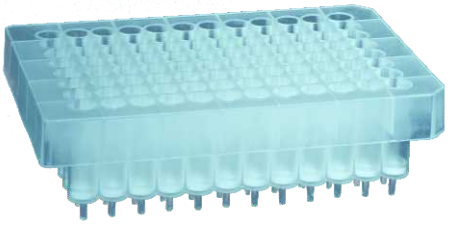
Pack Size	Code
50	0050
250	0250

Example:

MIPK	XX	XX	XX	X	0250

Express 96 well Miniprep pDNA Kit

(In Less Than 45 Minutes)



Unique Performance Advantages

- Multiple (96) samples processing
- Very high binding capacity
- No precipitation required for desalting
- Highly concentrated, ultrapure pDNA isolation in very low elution volumes
- High intra & inter lot consistency

Downstream Applications

- Restriction Enzyme Digestion
- Library Screening
- In vitro Translation
- Sequencing
- Ligation
- Transformation / Transfection
- PCR

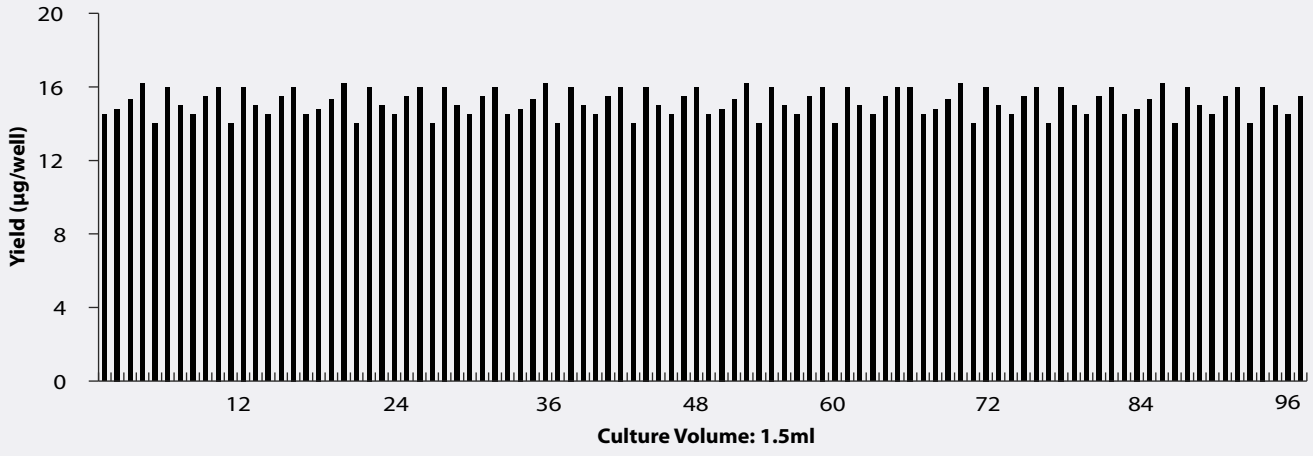
Specifications

pDNA Binding Capacity/Well : ≥ 25 µg
pDNA Yield/Well : upto 25 µg
Culture Volume/Well : 1-5 ml
Minimum Elution Volume/Well : 75 µl
Total Time Taken : 45 minutes

Purity

Ultrapure Plasmid DNA: A_{260} / A_{280} = 1.8-2.0

High Consistency: Well to Well



ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Express 96 Well Miniprep pDNA kit	EMPK

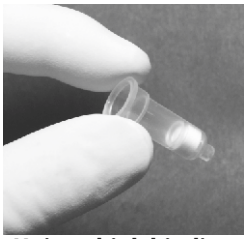
Pack Size	Code
4	0004

Example:

EMPK	XX	XX	XX	X	0004

Quanta Midi Kits

(In Just 30 Minutes)



Unique high binding capacity midi spin column

Vacuum based, no gravitational waiting

Concentrated pDNA, no Isopropanol precipitation

Types Available

- Quanta Midi Kit
- Endotoxin Free Quanta Midi Kit : Certified for very low endotoxin levels (<0.1 EU/µg)

Unique Performance Advantages

- Fastest Midiprep for pDNA Isolation
- Very high binding capacity - Upto 350µg
- No gravitational waiting
- Simple filtration to remove cell debris; No centrifugation
- No precipitation required for concentration
- Higher yields with low culture volume
- Highly concentrated, ultrapure pDNA isolation in very low elution volumes
- High intra & inter lot consistency

Unique Technology

Combines the use of a specially designed filtration devices and tube extender to obtain high purity pDNA in just 30 minutes. No desalting is required to obtain ultrapure pDNA yields.

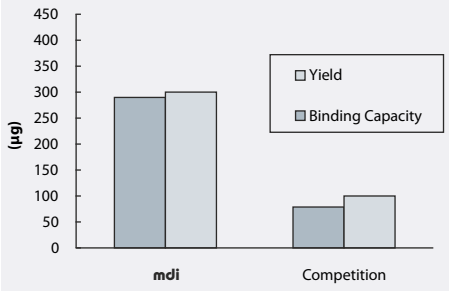
Downstream Applications

- Automated Sequencing
- Restriction Digestion
- Cloning
- Transfection / Transformation
- PCR
- Ligation
- Microinjection
- Probe Generation

Purity

Ultrapure Plasmid DNA: A_{260} / A_{280} = 1.8-2.0

Yield & Binding Capacity



Specifications

	High Copy Plasmid	Low Copy Plasmid
Binding capacity of membrane (ds DNA)	350 µg	350 µg
Recovery	90%	90%
Maximum culture volumes	25-35 ml	50 ml
Expected yield of plasmid	150-250 µg	30-100 µg

ORDERING INFORMATION

Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
Quanta midi kit	QDPK					25	0025
Endotoxin free Quanta midi kit	QDEK					100	0100

Example:

QDPK	XX	XX	XX	X	0100

Quanta Maxi Kits

(In Just 30 Minutes)

Types Available

- Quanta Maxi Kit
- Endotoxin Free Quanta Maxi Kit : Certified for very low endotoxin levels (<0.1 EU/µg)

Unique Performance Advantages

- Fastest Maxiprep for pDNA Isolation
- Very high binding capacity - Upto 1200 µg
- No gravitational waiting
- Simple filtration to remove cell debris; No centrifugation
- No precipitation required for concentration
- Higher yields with low culture volume
- Highly concentrated, ultrapure pDNA isolation in very low elution volumes
- High intra & inter lot consistency

Unique high binding capacity Maxi spin column

Unique Technology

Combines the use of a specially designed filtration devices and tube extender to obtain high purity pDNA in just 30 minutes. No desalting is required to obtain ultrapure pDNA yields.

Downstream Applications

- Automated Sequencing
- Restriction Digestion
- Cloning
- Transfection / Transformation
- PCR
- Ligation
- Microinjection
- Probe Generation

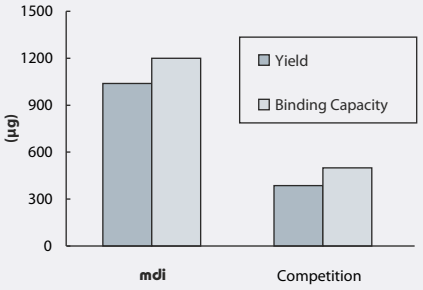
Purity

Ultrapure Plasmid DNA: A_{260} / A_{280} = 1.8-2.0

Specifications

	High Copy Plasmid	Low Copy Plasmid
Binding capacity of membrane (ds DNA)	1200 µg	1200 µg
Recovery	90%	90%
Maximum culture volumes	130 ml	200 ml
Expected yield of plasmid	upto 1000 µg	upto 250 µg

Yield & Binding Capacity



ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Quanta Maxi kit	QXPK
Endotoxin free Quanta Maxi kit	QXEK

Pack Size	Code
10	0010
25	0025

Example:	QXPK	XX	XX	XX	X	0025

Quanta Mega Kits

(In Less than 50 Minutes)

Types Available

- Quanta Mega Kit
- Endotoxin Free Quanta Mega Kit : Certified for very low endotoxin levels (<0.1 EU/µg)

Unique Performance Advantages

- Fastest Megaprep for pDNA Isolation
- Very high binding capacity - Upto 3000µg
- No gravitational waiting
- Simple filtration to remove cell debris; No centrifugation
- No precipitation required for concentration
- Higher yields with low culture volume
- Highly concentrated, ultrapure pDNA isolation; in very low elution volumes
- High intra & inter lot consistency

Unique Technology

Combines the use of a specially designed filtration device and tube extender to obtain high purity pDNA in just 50 minutes. No desalting is required to obtain ultrapure pDNA yields.

Downstream Applications

- Automated Fluorescent Sequencing
- Radioactive Sequencing
- Restriction Digestion
- Transfection (with highly sensitive mammalian cell lines)
- Cloning
- PCR

Specifications

	High Copy Plasmid	Low Copy Plasmid
Capacity of Tube Extender	300 ml	300 ml
Binding Capacity of Spin Column	3000 µg	3000 µg
Recovery	90%	90%
Maximum culture volumes	500 ml	500 ml
Expected yield of plasmid	upto 2500 µg	upto 2500 µg

Purity

Ultrapure Plasmid DNA: A_{260} / A_{280} = 1.8-2.0

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Quanta Mega kit	QMPK
Endotoxin free Quanta Mega kit	QMEK

Pack Size	Code
2	0002
4	0004
10	0010

Example:

QMEK	XX	XX	XX	X	0010

Quanta Giga Kits

(In <1 hour)

Type Available

- Quanta Giga Kit
- Endotoxin Free Quanta Giga Kit : Certified for very low endotoxin levels (<0.1 EU/µg)

Unique Performance Advantages

- Fastest Gigaprep for pDNA Isolation
- Very high binding capacity - Upto 12000 µg
- No gravitational waiting
- Simple filtration to remove cell debris; No centrifugation
- No precipitation required for concentration
- Higher yields with low culture volume
- Highly concentrated, ultrapure pDNA isolation; in very low elution volumes
- High intra & inter lot consistency

Unique Technology

Combines the use of a specially designed filtration devices and tube extender to obtain high purity pDNA within 1 hour. No desalting is required to obtain ultrapure pDNA yields.

Unique High Binding Capacity Giga Column

Downstream Applications

- Automated Fluorescent Sequencing
- Radioactive Sequencing
- Restriction Digestion
- Transfection (with highly sensitive mammalian cell lines)
- Cloning
- PCR

Specifications

	High Copy Plasmid	Low Copy Plasmid
Capacity of Tube Extender	300 ml	300 ml
Binding Capacity of Spin Column	12,000 µg	12,000 µg
Recovery	90%	90%
Maximum culture volumes	2.5 litre	2.5 litre
Expected yield of plasmid	up to 10,000 µg	up to 10,000 µg

Purity

Ultrapure Plasmid DNA: A_{260} / A_{280} = 1.8-2.0

ORDERING INFORMATION

Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
Quanta Giga kit	QGPK					2	0002
Endotoxin free Quanta kit	QGEK					4	0004
						10	0010

Example:

QGEK	XX	XX	XX	X	0010

Genomic DNA Isolation Kits

gDNA isolation is required for a variety of applications such as genomic sequencing, transfection and microinjection. Scientists are naturally concerned not only about the quality and yields, but also the shelf life, consistency and processing time.

mdi offers well characterized and validated Genomic DNA Miniprep and Microprep Kits which reproducibly provide ultrapure gDNA from a wide variety of samples such as plant tissues, mammalian tissue, blood, bacteria and cultured cells.

Selection Chart

Sample Types		Purity A_{260}/A_{280}	Amount of Starting Material	Yields	Processing Time	Applications
Plant gDNA Kit	**Plant gDNA Miniprep Kit**	1.7-1.9	100 mg wet weight 20 mg dry weight	Upto 30µg	30 minutes	• In-Vitro Transcription • In-Vitro Translation • Automated Sequencing • Cloning • Southern Blotting • AFLP • RFLP • RAPD • PCR • Restriction Digestion • Transformation • Ligation • Transfection • SNP Genotyping • Microsatellite analysis • RT-PCR
	Express 96 well Plant pDNA Kit	1.7-1.9	50 mg wet weight/well 10 mg dry weight/well	Upto 30µg	30 minutes	
gDNA Miniprep Kit	**Mammalian Tissue** - Liver - Kidney - Lung - Spleen - Mouse Tail	1.8-2.0	25mg	10 -30µg	< 1hr	
	Animal Blood	1.8-2.0	200µl	Upto 12µg	<1hr	
	Bacteria - Gram Positive - Gram Negative	1.8-2.0	2 x 10^9 cells	Upto 22µg	45 minutes	
	Cultured Cells	1.8-2.0	5 x 10^6 cells	Upto 25µg	<1hr	
	Stool gDNA Miniprep Kit	1.8-2.0	180 - 200mg	Upto 100µg	<1hr	
	Medi G- Blood gDNA Miniprep Kit	1.8-2.0	200µl	Upto 25µg	<1hr	
	Medi G-M Blood gDNA Microprep Kit	1.8-2.0	200µl	Upto 25µg	<1hr	

Genomic DNA Isolation Kits: Process Flow

gDNA Miniprep Kits

mdi Genomic DNA Miniprep Kit

Sample

Lyse

Bind

Wash 2X

Dry with open lid

Elute

Ultrapure gDNA

mdi Plant gDNA Miniprep Kit

Plant Tissue

Grind
Lyse
Precipitate

Centrifuge through **mdi** Shredder

Add Binding Buffer and transfer to **mdi** plant mini spin column

Bind DNA

Wash 2X
and dry

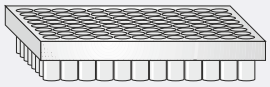
Elute

Ultrapure gDNA

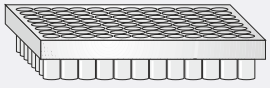
mdi Express 96 well Plant gDNA Kit

Plant Tissue

Grind Plant Tissue

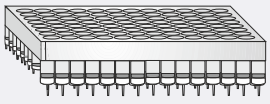


Lyse and Precipitate
Polysaccharides



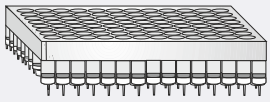
Prepare Clear Lysate
and Add Binding Buffer

Express Prep Plate



Bind, Wash and Dry

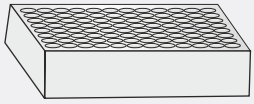
Vacuum



Elute

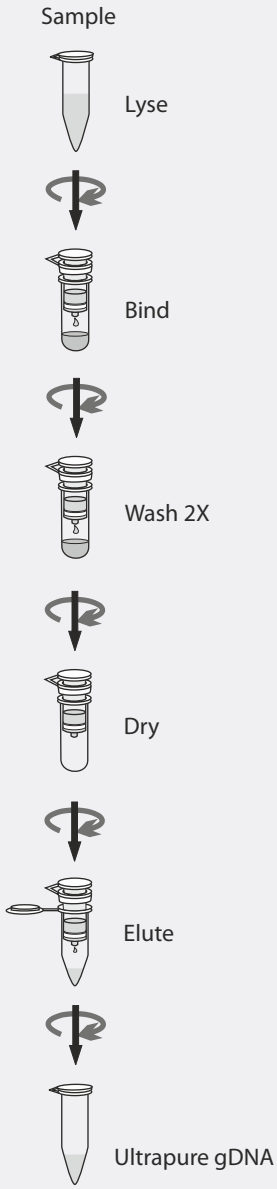
Vacuum

Microtubes
for Ultrapure gDNA



Microtube
Rack

Genomic DNA Isolation Kits: Process Flow

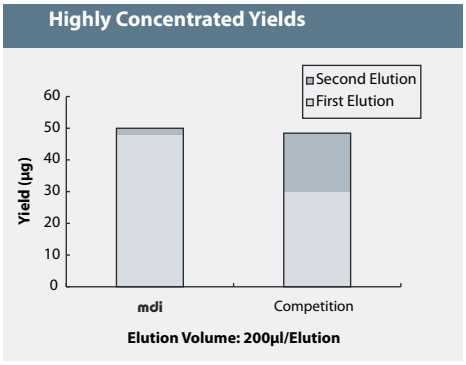
gDNA Miniprep Kits		
mdi Stool gDNA Miniprep Kit	**mdi Medi G Blood gDNA Miniprep Kit**	**mdi Medi G-M Blood gDNA Microprep Kit**
		

gDNA Miniprep Kit

(for Mammalian Tissue, Blood, Bacterial Cells and Cultured Cells)

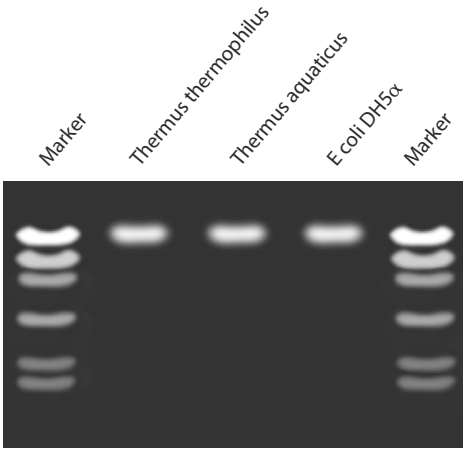
Unique Performance Advantages

- Very high binding capacity - Upto 50µg
- Higher yields
- No precipitation step for high purity gDNA
- Suitable for all type of downstream applications



Downstream Applications

- PCR
- Southern Blotting
- RAPD Analysis
- AFLP Analysis
- RFLP Analysis
- In-Vitro Transcription
- Restriction Digestion
- Transformation
- Transfection
- SNP Genotyping
- Microsatellite Analysis
- RT - PCR
- Gene Silencing
- Microinjection
- Probe Generation



Agarose gel analysis of gDNA from different bacteria purified with **mdi** gDNA Miniprep Kit . M: lambda-HindIII

Specifications

Maximum Amount of Tissue : 25 mg
Maximum bacterial cells : 2×10^9
Maximum volume of blood sample : 200µl
Maximum amount of cultured cells : 5×10^6
Capacity of column reservoir : 700µl
DNA Binding capacity : 50 µg
Recovery : 80%
Minimum elution volume : 200µl

Purity

Ultrapure Genomic DNA: $A_{260} / A_{280} = 1.8\text{-}2.0$

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
gDNA Miniprep Kit	CTGK

Pack Size	Code
50	0050
250	0250

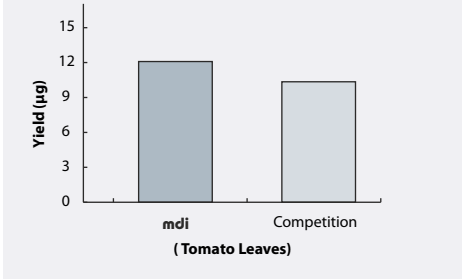
Example:

CTGK	XX	XX	XX	X	0250

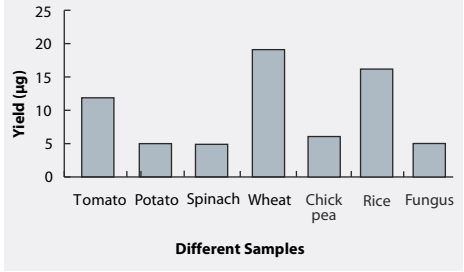
Plant gDNA Miniprep Kit

(In <1 hour)

High Yields



gDNA Yield with different Plant samples



Unique Performance Advantages

- Very high binding capacity - Upto 50µg
- High yields with different plant tissue
- No precipitation step for high purity gDNA
- Suitable for all types of downstream applications

Downstream Applications

- PCR
- Southern Blotting
- RAPD Analysis
- AFLP Analysis
- RFLP Analysis
- In-Vitro Transcription
- Restriction Digestion
- Transformation
- Transfection
- SNP Genotyping
- Microsatellite Analysis
- RT - PCR
- Gene Silencing
- Microinjection
- Probe Generation

Specifications

Maximum Amount of Starting Material : 100 mg wet weight, 20 mg dry weight

Capacity of column Reservoir : 700µl

DNA Binding capacity : 50 µg

Recovery : 80%

Elution volume : 100µl

Purity

Ultrapure genomic DNA: $A_{260} / A_{280} = 1.7\text{-}1.9$

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Plant gDNA Miniprep Kit	PTGK

Pack Size	Code
50	0050
250	0250

Example:

PTGK	XX	XX	XX	X	0250

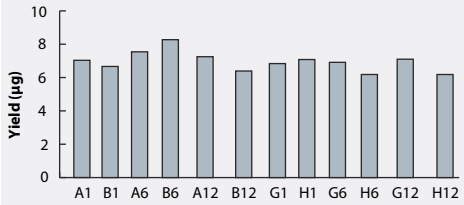
Express 96 Well Plant gDNA Kit

(In <2 hours)

Unique Performance Advantages

- Easy to use vacuum based protocol
- Very high binding capacity - Upto 50µg/well
- High yields with different plant tissue
- No precipitation step for high purity gDNA
- Suitable for all type of downstream applications

High Yield Consistency: Well to Well



Downstream Applications

- Automated Fluorescent Sequencing
- Radioactive Sequencing
- Southern Blotting
- Cloning
- Quantitative, Real-Time PCR
- RAPD, AFLP, RFLP Analysis
- Microsatellite Analysis
- SNP Genotyping
- PCR
- Restriction digestion

Specifications

Maximum Amount of Tissue/well : 50mg wet weight
10mg dry weight

Capacity of well reservoir : 1ml

DNA Binding capacity/well : 50 µg

Recovery : 80%

Minimum elution volume/well : 100µl

Purity

Ultrapure genomic DNA: A_{260} / A_{280} = 1.7-1.9

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

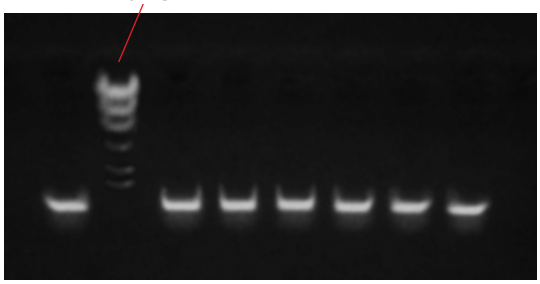
Type	Code
Express 96 Well Plant gDNA Miniprep Kit	EPGK

Pack Size	Code
4	0004

Example:

EPGK	XX	XX	XX	X	0004

Stool gDNA Miniprep Kit



Agrose gel analysis of gDNA from different stool samples purified with **mdi** stool gDNA Miniprep Kit
Marker : lambda Hind III

Unique Performance Advantages

- Very high binding capacity - Upto 100µg
- High yields with different stool samples
- No precipitation step for high purity gDNA

Downstream Applications

- Automated Fluorescent Sequencing
- Radioactive Sequencing
- Restriction Digestion
- Cloning
- PCR

Specifications

Weight of Stool Sample: 180 - 220 mg wet weight
Capacity of column reservoir : 700µl
Binding capacity of membrane (ds DNA) : 100 µg
Recovery : 80%
Elution volume : 200µl
Typical yield : 15-60 µg
Typical DNA concentration : 75-300ηg/µl

Purity

Ultrapure Genomic DNA: $A_{260} / A_{280} = 1.8\text{-}2.0$

ORDERING INFORMATION

Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
Stool gDNA Miniprep Kit	STGK					50	0050
						250	0250

Example:

STGK	XX	XX	XX	X	0250

Medi G Blood gDNA Miniprep Kit

Unique Performance Advantages

- Very high binding capacity - Upto 50µg
- No precipitation step for high purity gDNA
- Suitable for all type of downstream applications

Unique High Binding Capacity Column

Downstream Applications

- Automated Fluorescent Sequencing
- Radioactive Sequencing
- PCR

Specifications

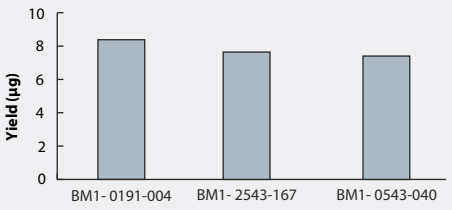
Maximum Volume of Blood Sample: 200µl
Capacity of column reservoir : 700µl
Binding capacity of membrane (ds DNA) : 50 µg
Recovery : 80%
Elution volume : 200µl

Purity

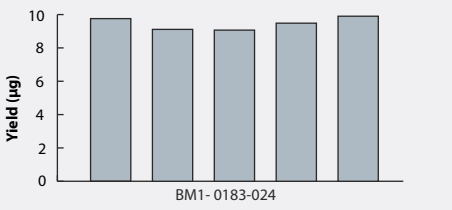
Ultrapure Genomic DNA: A_{260} / A_{280} = 1.8-2.0

Performance

High Inter Lot Consistency



High Intra Lot Consistency



ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Medi G Blood gDNA Miniprep Kit	BMGK

Pack Size	Code
50	0050
250	0250

Example:

BMGK	XX	XX	XX	X	0250

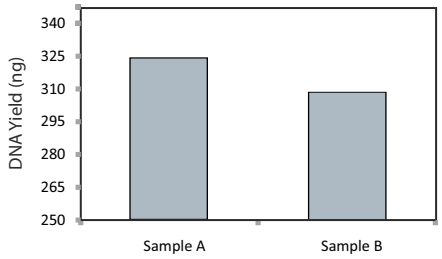
Medi G-M Blood gDNA Miniprep Kit

(For Whole Blood and Dry Blood spots)

Performance (Dried Blood Spots)

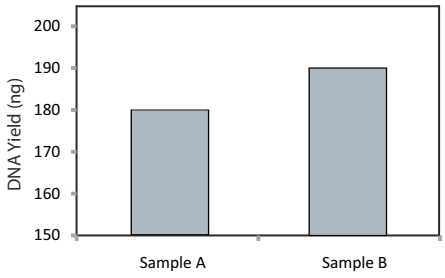
A. Yield for blood treated with anti-coagulant

No. of Circles : 6 Elution Volume: 150µl



B. Yield for untreated blood

No. of Circles : 6 Elution Volume: 150µl



Unique Performance Advantages

- Very high binding capacity - Upto 10µg
- No precipitation step for high purity gDNA.
- Suitable for all type of downstream applications

Downstream Applications

- Automated Fluorescent Sequencing
- Radioactive Sequencing
- PCR

Specifications

Maximum Volume of Blood Sample: 200µl

Maximum Number of Dry blood spot punches/Circles (3mm diameter): 6

Capacity of column reservoir : 700µl

DNA Binding capacity of membrane: 10 µg

Recovery : 80%

Elution volume : 60 - 200µl.

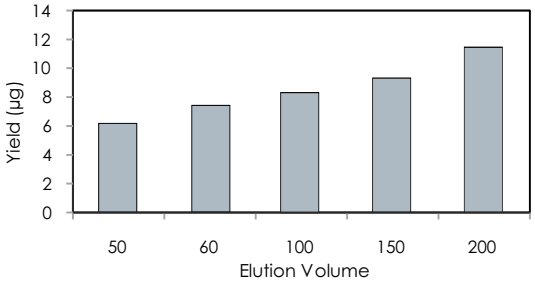
(60µl for higher concentration of genomic DNA)

Purity

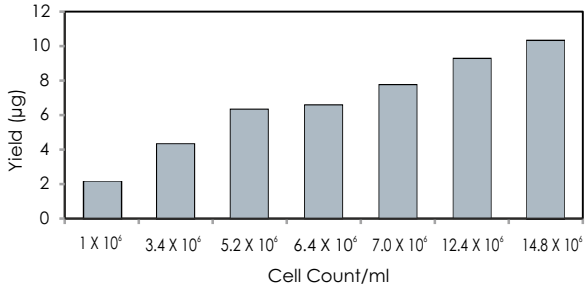
Ultrapure Genomic DNA: A_{260} / A_{280} = 1.8-2.0

Performance(Whole Blood)

C. Elution Volume vs Yield (Leucocyte Count = 7.1 X 10^6/ml)



D. Leucocyte Count vs Yield (Elution Volume = 60µl)



ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Medi G-M Blood gDNA Miniprep kit	BRGK

Pack Size	Code
50	0050
250	0250

Example:

BRGK	XX	XX	XX	X	0250

RNA Isolation Kits

mdi offers a range of RNA Miniprep Kits designed to have a fast, easy and economical isolation of high purity total RNA from bacterial cultures (both from Gram Positive and Gram Negative bacteria), plant tissue, mammalian tissue and cultured cells, and leukocytes.

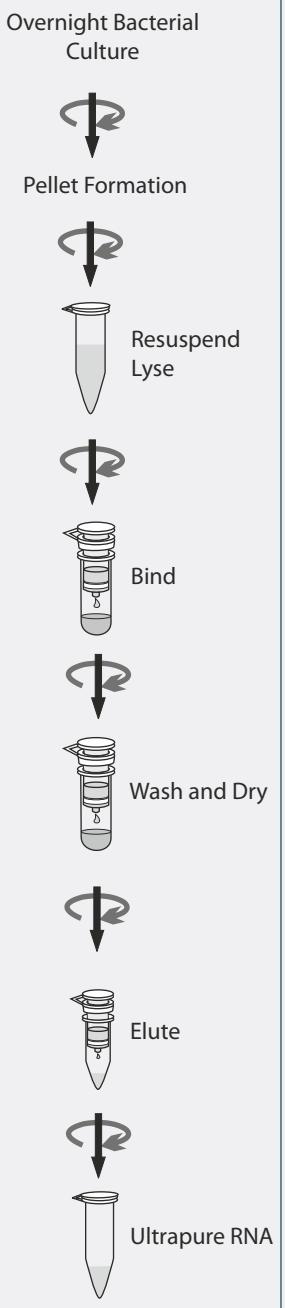
The **mdi** RNA Miniprep Kits are targeted to purify RNA from small amounts of starting material. This technology does away with phenol extraction (associated with desalting) and ethanol precipitation (associated with anion exchange based purification).

Selection Chart

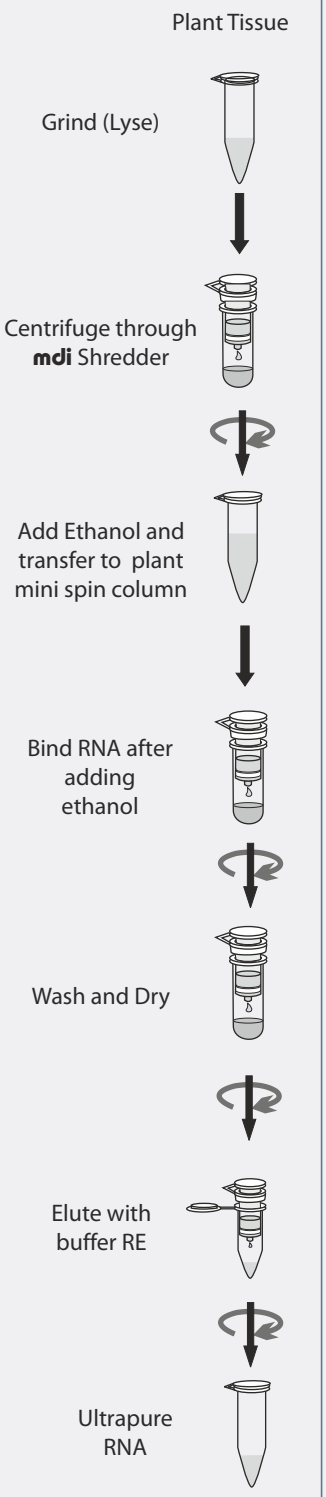
RNA Isolation Kits		Purity A_{260}/A_{280}	Amount of Starting Material	Processing Time	Elution Volume	Applications
Total RNA Miniprep Kits	Bacterial Total RNA Miniprep Kit	1.9-2.1	5.8×10^8 - 7.5×10^8 cells	< 30 Minutes	50µl	• RT-PCR and Real Time RT-PCR • Differential Display • cDNA Synthesis • Northern, Dot, and Slot Blot Analysis • Primer Extension • RNase/S1 Nuclease Protection • Micro Array
	Plant Total RNA Miniprep Kit	1.9-2.1	100mg	< 30 Minutes	50µl	
	Medi R Total RNA Plus Miniprep Kit	1.9-2.1	$1x10^7$ leukocytes	< 30 Minutes	50µl	
	Mammalian Tissue Total RNA Miniprep Kit	1.9-2.1	25-30mg	< 30 Minutes	50µl	

Total RNA Miniprep Kits

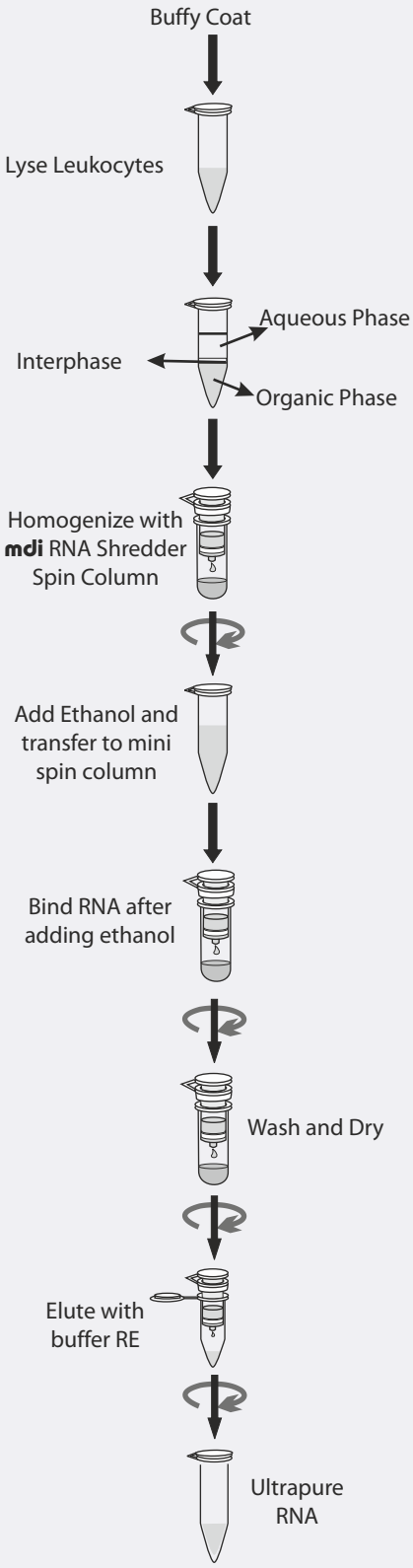
mdi Bacterial Total RNA Miniprep Kit(upto 100µg)



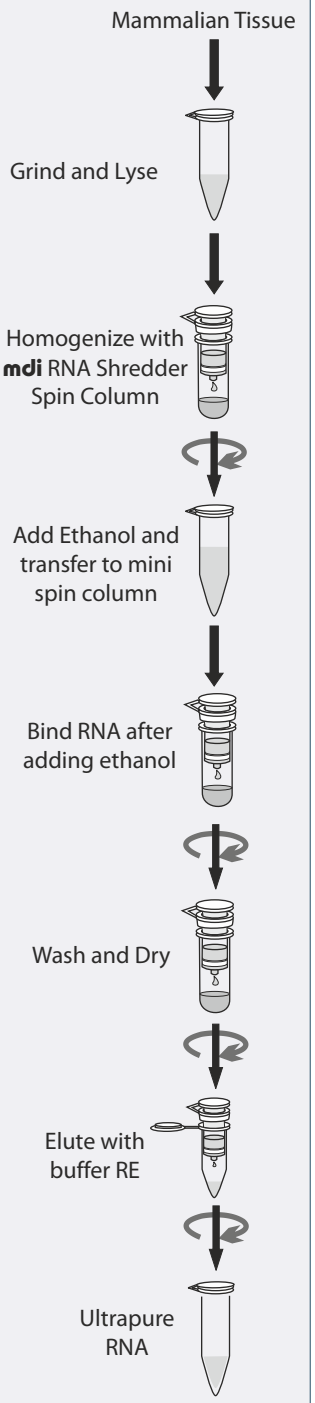
mdi Plant Total RNA Miniprep Kit (upto 100µg)



mdi Medi R Total RNA Plus Miniprep Kit(upto 10µg)



mdi Mammalian Tissue Total RNA Miniprep Kit (upto 100µg)

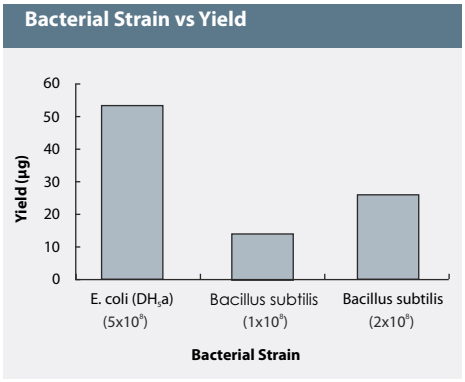


Bacterial Total RNA Miniprep Kits

(upto 100µg)

Unique Performance Advantages

- Easy purification of large sized fragments without shearing
- No precipitation step for high purity RNA
- Highly concentrated RNA yields in low elution volume



Downstream Applications

- RT-PCR and Real Time RT-PCR
- Differential Display
- cDNA Synthesis
- Northern, Dot, and Slot Blot Analysis
- Primer Extension
- Micro Array

Specifications

Number of bacterial cells : $5.8x10^8$ - $7.5x10^8$

RNA Binding Capacity : ≥100µg

Capacity of column reservoir : 700µl

Recovery : 80%

Minimum elution volume : 50 µl

Total time taken : <30 Minutes

Purity

Ultrapure RNA: A_{260} / A_{280}=1.9-2.1

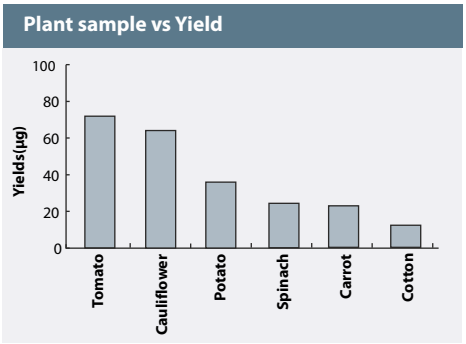
ORDERING INFORMATION

Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
Bacterial Total RNA Miniprep Kits	BMRK					50	0050
						250	0250

Example:	BMRK	XX	XX	XX	X	0250

Plant Total RNA Miniprep Kits

(up to 100µg)



Unique Performance Advantages

- Easy purification of large sized fragments without shearing
- No precipitation step for high purity RNA
- Highly concentrated RNA yields in low elution volume

Downstream Applications

- RT-PCR and Real Time RT-PCR
- Differential Display
- cDNA Synthesis
- Northern, Dot, and Slot Blot Analysis
- Primer Extension
- Micro Array

Specifications

Maximum weight of sample: 100mg

Capacity of column reservoir : 700µl

RNA Binding capacity : ≥100 µg

Recovery : 80%

Minimum elution volume : 50 µl

Total time taken : < 30 Minutes

Purity

Ultrapure RNA: A_{260} / A_{280}=1.9-2.1

ORDERING INFORMATION

Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
Plant Total RNA Miniprep Kit	PMRK					50	0050
						250	0250

Example:

PMRK	XX	XX	XX	X	0250

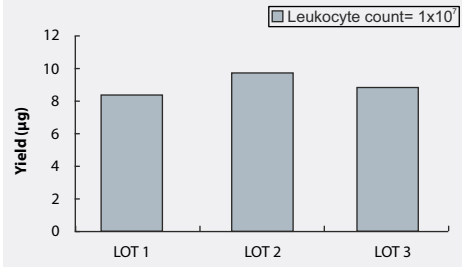
Medi R Total RNA Plus Miniprep Kits

(Upto 10µg)

Unique Performance Advantages

- Easy purification of large sized fragments without shearing
- No precipitation step for high purity RNA

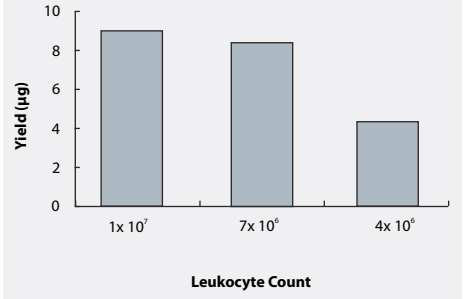
Yield: Lot to lot Consistency



Downstream Applications

- RT-PCR and Real Time RT-PCR
- Differential Display
- cDNA Synthesis
- Northern, Dot, and Slot Blot Analysis
- Primer Extension
- Micro Array

Leukocyte count vs. Yield



Specifications

Maximum Leukocyte Count: $1x10^7$

RNA Binding Capacity: Upto 10µg

Capacity of column reservoir: 750µl

Recovery : 80%

Minimum elution volume : 50 µl

Total time taken: <30 minutes

Purity

Ultrapure RNA: A_{260} / A_{280}=1.9-2.1

ORDERING INFORMATION

Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
Medi R Total RNA Plus Miniprep Kit	TPRK					50	0050
						250	0250

Example:	TPRK	XX	XX	XX	X	0250

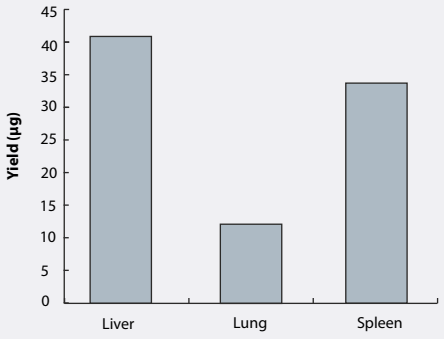
Mammalian Tissue Total RNA Miniprep Kits

(Upto 100µg)

Unique Performance Advantages

- Easy purification of upto 100µg of high purity total RNA from mammalian tissue and cultured cells
- No precipitation step for high purity RNA

Mammalian Tissue Sample vs Yield



Downstream Applications

- RT-PCR and Real Time RT-PCR
- Differential Display
- cDNA Synthesis
- Northern, Dot, and Slot Blot Analysis
- Primer Extension
- Micro Array

Specifications

Maximum Tissue Sample : 25-30mg
RNA Binding Capacity: Up to 100µg
Capacity of column reservoir: 750µl
Recovery : 80%
Minimum elution volume : 50 µl
Total time taken: <30 minutes

Purity

Ultrapure RNA: A_{260} / A_{280}=1.9-2.1

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Mammalian Tissue Total RNA Miniprep Kit	MTRK

Pack Size	Code
50	0050
250	0250

Example:

MTRK	XX	XX	XX	X	0250

PCR Purification and Gel Extraction Kits

mdi offers PCR Purification Kits for efficient removal of contaminants such as primers, enzymes and salts and Gel Extraction Kits to purify very small quantities of even large DNA fragments from upto 400mg of gel slices.

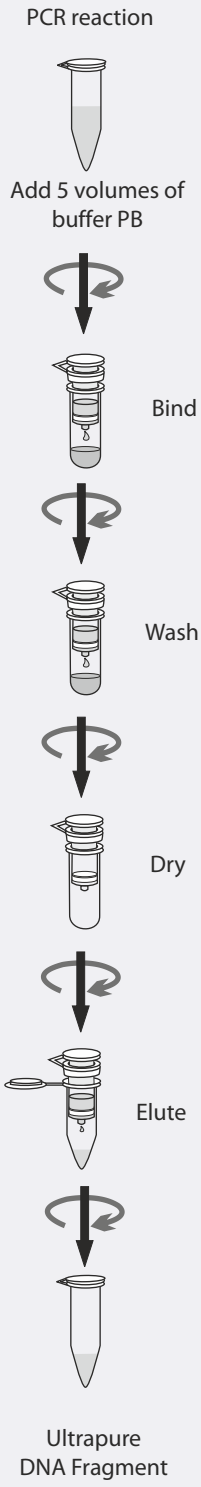
The following selection chart will help you choose the most suitable kit for your experiment.

Selection Chart

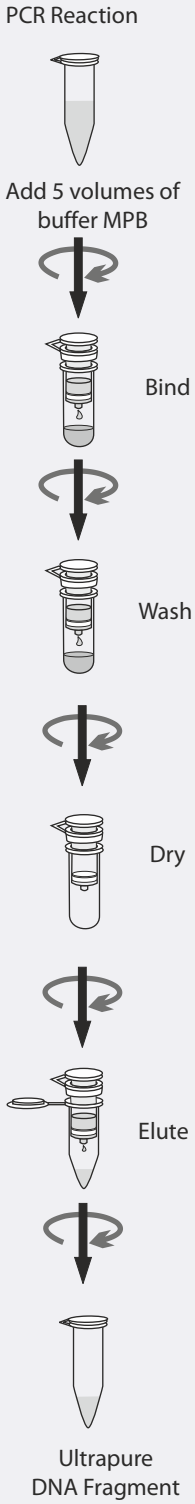
DNA Clean up Kits		Purity A_{260}/A_{280}	Starting DNA Quantity	Recovered DNA Fragment	Elution Volume	Applications
PCR Purification Kits	PCR Purification Kit	1.8-2.0	5-10µg	100bp -10kb	30µl	• Transfection • In-Vitro Transcription • In-Vitro Translation • High quality sequencing • Microarray Analysis • Cloning • PCR • Gene Silencing • Probe Generation • Microinjection • Restriction Digestion • Demanding enzymatic modifications • Library Construction • Bacterial Transformation • Ligation
	Micro PCR Purification Kit	1.8-2.0	1-2µg	70bp -4kb	10µl	
	Nano PCR Purification Kit	1.8-2.0	upto 400ng	70bp -4kb	5µl	
	Express 96 PCR Purification Kit	1.8-2.0	upto 5 - 10µg/well	100bp -10kb	100µl	
Gel Extraction Kits	Gel Extraction Kit	1.8-2.0	5-10µg	70bp -10kb	30µl	
	Micro Gel Extraction Kit	1.8-2.0	1-2µg	70bp -4kb	10µl	
	Nano Gel Extraction Kit	1.8-2.0	upto 400ng	70bp -4kb	5µl	

PCR Purification Kits

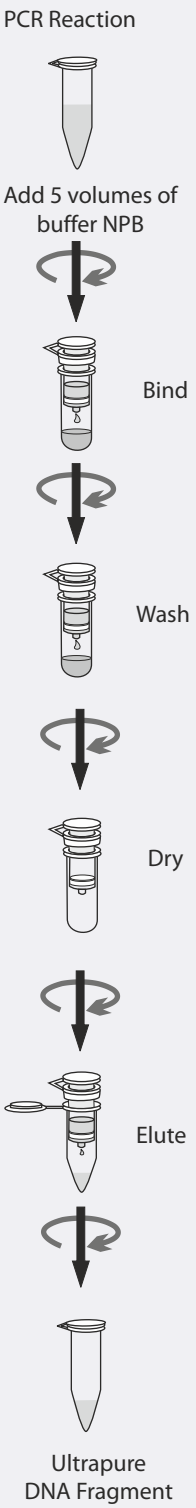
mdi PCR Purification Kit (5-10µg)



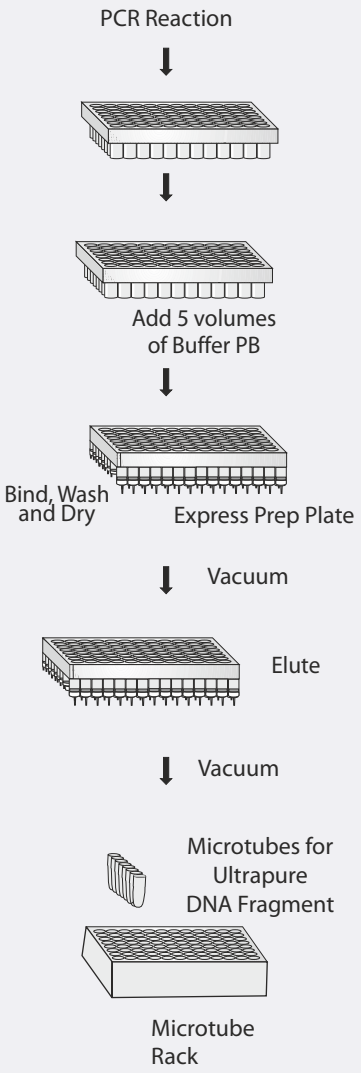
mdi Micro PCR Purification Kit (1-2µg)



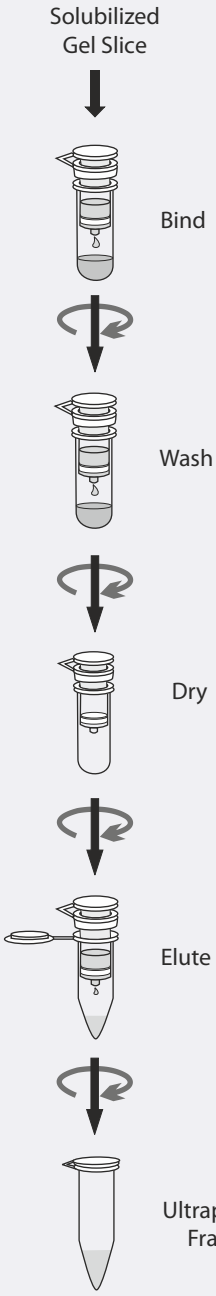
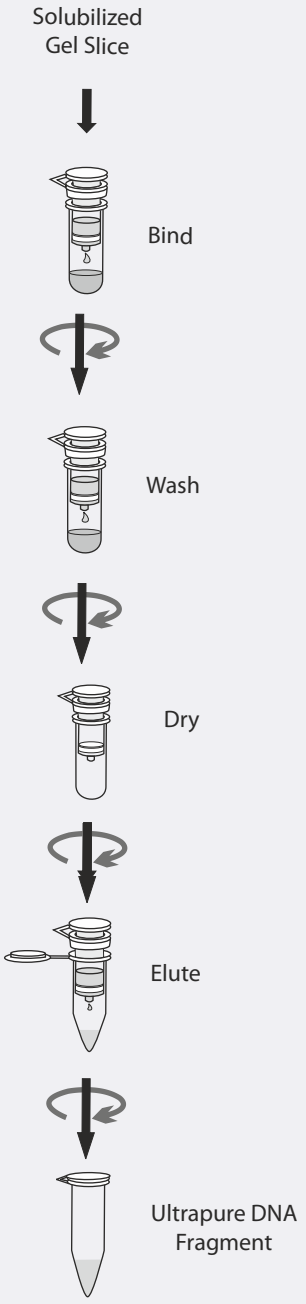
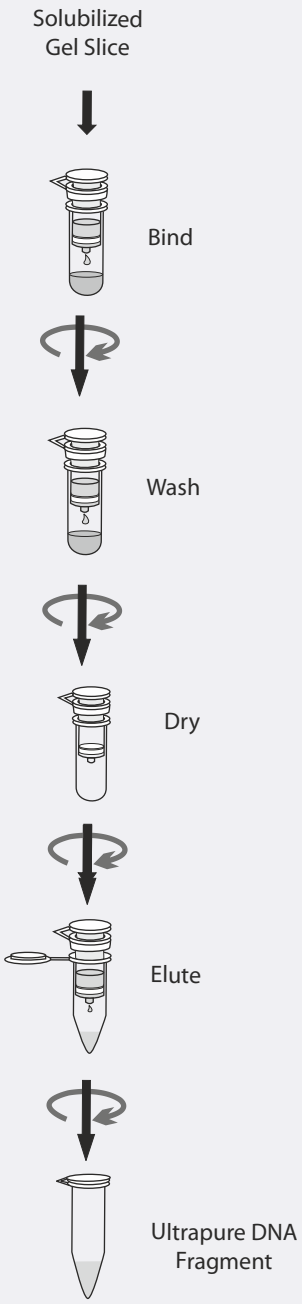
mdi Nano PCR Purification Kit (upto 400ng)



mdi Express 96 PCR Purification Kit (upto 5-10µg/well)



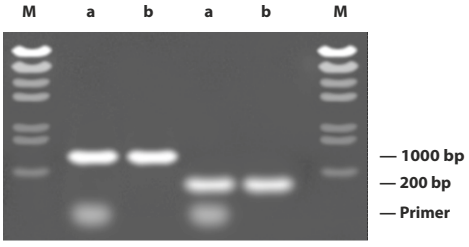
Gel Extraction Kits

mdi Gel Extraction Kit (5-10µg)	**mdi Micro Gel Extraction Kit (1-2µg)**	**mdi Nano Gel Extraction Kit (upto 400ng)**
		

PCR Purification Kit

(5-10µg)

PCR Purification



Complete primer removal using
mdi PCR Purification Kit
a: Before purification **b:** After purification
M: Marker

Unique Performance Advantages

- Easy purification of large sized fragments without shearing
- No precipitation step for high purity DNA
- Highly concentrated DNA yields in low elution volume

Downstream Applications

- Transfection
- In-Vitro Transcription
- In-Vitro Translation
- High quality sequencing
- Microarray Analysis
- Cloning
- PCR
- Gene Silencing
- Probe Generation
- Microinjection
- Restriction Digestion
- Demanding enzymatic modifications
- Library Construction
- Bacterial Transformation
- Ligation

Specifications

Capacity of column reservoir : 800µl
Binding capacity of membrane (ds DNA) : 10 µg
Recovery : 90-95%
Recovered DNA fragment : (100 bp -10 kb)
Minimum elution volume : 30 µl
Total eluate volume : 28 µl

Purity

Ultrapure DNA: A_{260} / A_{280}=1.8-2.0

ORDERING INFORMATION

Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
PCR Purification Kit	SPCK					50	0050
						250	0250

Example:	SPCK	XX	XX	XX	X	0250

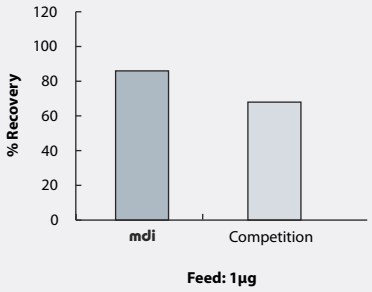
Micro PCR Purification Kit

(1-2µg)

Unique Performance Advantages

- Easy purification of large sized fragments without shearing
- No precipitation step for high purity DNA
- Highly concentrated DNA yields in very low elution volume

High Concentration Recovery



Downstream Applications

- Transfection
- In-Vitro Transcription
- In-Vitro Translation
- High quality sequencing
- Microarray Analysis
- Cloning
- PCR
- Gene Silencing
- Probe Generation
- Microinjection
- Restriction Digestion
- Demanding enzymatic modifications
- Library Construction
- Bacterial Transformation
- Ligation

Specifications

Capacity of column reservoir : 800µl

Binding capacity of membrane (ds DNA) : 5 µg

Recovery : 80%

Recovered DNA fragment : (70 bp - 4 kb)

Minimum elution volume : 10 µl

Total eluate volume : 9 µl

Purity

Ultrapure DNA: A_{260} / A_{280}=1.8-2.0

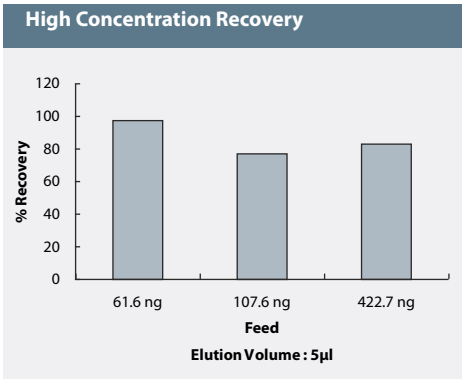
ORDERING INFORMATION

Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
Micro PCR Purification Kit	MPCK					50	0050
						250	0250

Example:	MPCK	XX	XX	XX	X	0250

Nano PCR Purification Kit

(upto 400ng)



Unique Performance Advantages

- Works with very small DNA quantities
- Fastest DNA Purification in just 5 minutes
- High DNA Recovery and yield from even low feed quantities
- Highly concentrated DNA in very low elution volume
- Easy purification of large sized fragments without shearing

Downstream Applications

- Transfection
- In-Vitro Transcription
- In-Vitro Translation
- High quality sequencing
- Microarray Analysis
- Cloning
- PCR
- Gene Silencing
- Probe Generation
- Microinjection
- Restriction Digestion
- Demanding enzymatic modifications
- Library Construction
- Bacterial Transformation
- Ligation

Specifications

Capacity of column reservoir : 800µl

Binding capacity of membrane (ds DNA) : 5 µg

Recovery : 80-85%

Recovered DNA fragment : 70 bp-4 kb

Minimum elution volume : 5µl

Total eluate volume : 4µl

Purity

Ultrapure DNA: A_{260} / A_{280}=1.8-2.0

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Nano PCR Purification Kit	NPCK

Pack Size	Code
50	0050
250	0250

Example:

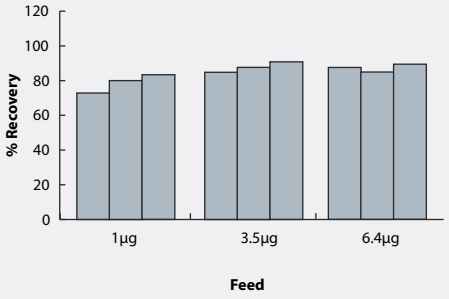
NPCK	XX	XX	XX	X	0250

Express 96 PCR Purification Kit

Unique Performance Advantages

- High DNA Recovery and yields
- High well to well consistency
- Easy purification of large sized fragments without shearing

High Concentration Recovery per well



Downstream Applications

- Transfection
- Transformation
- Transduction
- Automated Fluorescent sequencing
- Radioactive sequencing
- Cloning
- Restriction Digestion
- Ligation

Specifications

Capacity of column reservoir : 800µl
Binding capacity of membrane (ds DNA) : 10µg/well
Recovery : 80-95%
Recovered DNA fragment : 100 bp-10 kb
Minimum elution volume : 100µl

Purity

Ultrapure DNA: A_{260} / A_{280}=1.8-2.0

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Express 96 PCR Purification Kit	EPCK

Pack Size	Code
4	0004

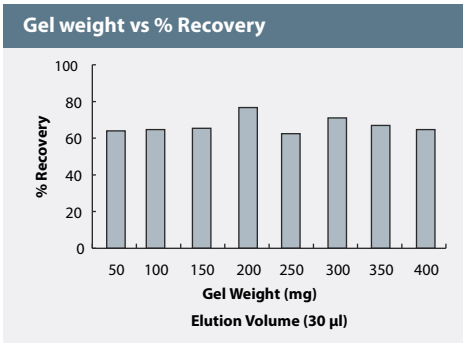
Example:	EPCK	XX	XX	XX	X	0004

Gel Extraction Kit

(5-10µg)

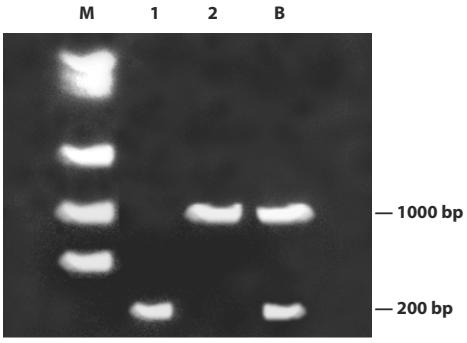
Unique Performance Advantages

- Easy purification of large sized fragments without shearing
- No precipitation step for high purity DNA
- Highly concentrated DNA yields in low elution volume



Downstream Applications

- Transfection
- In-Vitro Transcription
- In-Vitro Translation
- High quality sequencing
- Microarray Analysis
- Cloning
- PCR
- Gene Silencing
- Probe Generation
- Microinjection
- Restriction Digestion
- Demanding enzymatic modifications
- Library Construction
- Bacterial Transformation
- Ligation



High recovery using **mdi** Gel Extraction Kit
B: Before extraction **1-2:** After extraction
M: Marker

Specifications

Capacity of column reservoir : 800µl
Maximum weight of gel slice : 400mg
Binding capacity of membrane (ds DNA) : 10 µg
Recovery : 70-80 %
Recovered DNA fragment : 70 bp-10 kb
Minimum elution volume : 30 µl

Purity

Ultrapure DNA: A_{260} / A_{280}=1.8-2.0

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Gel Extraction Kit	SGEK

Pack Size	Code
50	0050
250	0250

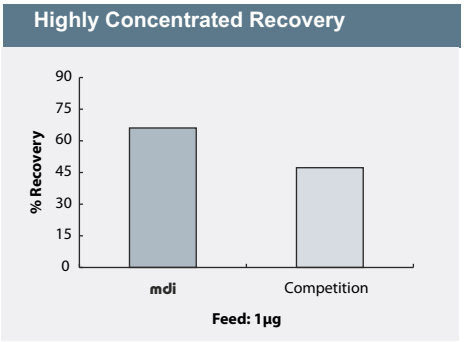
Example: SGEK | XX | XX | XX | X | 0250

Micro Gel Extraction Kit

(1-2µg)

Unique Performance Advantages

- Easy purification of large sized fragments without shearing
- No precipitation step for high purity DNA
- Highly concentrated DNA yields in very low elution volume



Downstream Applications

- Transfection
- In-Vitro Transcription
- In-Vitro Translation
- High quality sequencing
- Microarray Analysis
- Cloning
- PCR
- Gene Silencing
- Probe Generation
- Microinjection
- Restriction Digestion
- Demanding enzymatic modifications
- Library Construction
- Bacterial Transformation
- Ligation

Specifications

Capacity of column reservoir : 800µl

Maximum weight of gel slice : 400mg

Binding capacity of membrane (ds DNA) : 5 µg

Recovery : 80 %

Recovered DNA fragment : 70bp-4 kb

Minimum elution volume : 10 µl

Purity

Ultrapure DNA: A_{260} / A_{280}=1.8-2.0

ORDERING INFORMATION

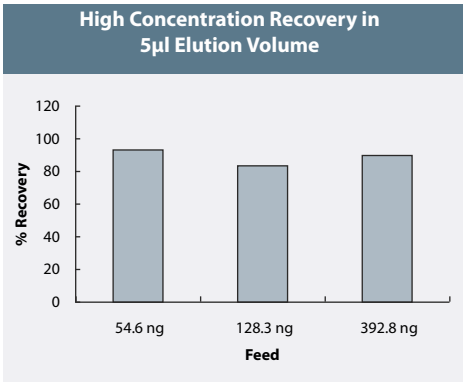
Type		XX	XX	XX	X	Pack Size	
Type	**Code**					**Pack Size**	**Code**
Micro gel Extraction kit	MGEK					50	0050
						250	0250

Example:

MGEK	XX	XX	XX	X	0250

Nano Gel Extraction Kit

(upto 400ng)



Unique Performance Advantages

- Fastest DNA Purification
- Very high DNA binding capacity
- High DNA Recovery and yield from even low feed quantities
- Highly concentrated DNA; in very low elution volumes
- Easy purification of large sized fragments without shearing

Downstream Applications

- Transfection
- In-Vitro Transcription
- In-Vitro Translation
- High quality sequencing
- Microarray Analysis
- Cloning
- PCR
- Gene Silencing
- Probe Generation
- Microinjection
- Restriction Digestion
- Demanding enzymatic modifications
- Library Construction
- Bacterial Transformation
- Ligation

Specifications

Capacity of column reservoir : 800µl

Binding capacity of membrane (ds DNA) : 5µg

Recovery : 80-85 %

Recovered DNA fragment : 70bp-4 kb

Minimum elution volume : 5µl

Total eluate volume : 4µl

Purity

Ultrapure Plasmid DNA: A_{260} / A_{280}=1.8-2.0

ORDERING INFORMATION

Type	XX	XX	XX	X	Pack Size

Type	Code
Nano Gel Extraction Kit	NGEK

Pack Size	Code
50	0050
250	0250

Example:

NGEK	XX	XX	XX	X	0250

Binding Membranes for Molecular Biology

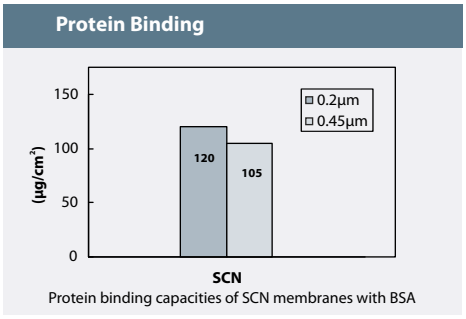
mdi binding membranes are uniform, paper thin, white plastic supports, having specially designed porous structures and binding sites suitable for transfer and hybridization of biological molecules.

mdi offers a wide range of binding membranes viz. Nitrocellulose, Nylon 66 and PVDF, exhibiting a range of properties to suit various applications.

Special features

- High binding capacities for the transferred molecules
- Good wettabilty for Nitrocellulose and Nylon 66 membranes
- PVDF membranes are hydrophobic
- Ability to retain the molecules without affecting its biological activity
- Chemical compatibility and mechanical durability
- Ability to be blocked by simple procedures
- High signal to noise ratio

For special applications, **mdi** offers internally supported binding membranes which exhibit very high mechanical strength.



Protein binding capacities of SCN membranes with BSA

Nitrocellulose Membrane Type - SCN and SCNJ

SCN

Pure nitrocellulose membrane produced specially for life sciences applications.

SCNJ

Internally supported to offer superior handleability.

Characteristics

- High binding capacities for proteins and nucleic acid molecules
- Minimum background: High signal to noise ratio
- Uniform and easy wettability
- Can be blocked by normal blocking methods
- Does not bind common protein stains
- Compatible with colorimetric, radiolabelled, chemiluminescent, fluorescent, and staining detection methods

Applications

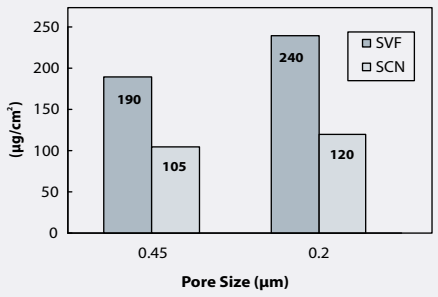
- Protein blotting
- Dot and slot blots
- Nucleic acid dot/slot blots
- Colony/plaque lifts
- Enzyme immunoassays

Packaging

Sealed in aluminum bags to maintain hydrophilicity and high protein binding on prolonged storage. The separators are of pure polyester film to avoid any contamination of the membrane from the separator.

PVDF Membrane- Type SVF

Protein Binding



Protein binding capacities of SVF and SCN membranes with BSA

mdi Polyvinylidene fluoride (PVDF) membrane is a naturally hydrophobic support matrix which offers much higher protein binding capacities than that of Nitrocellulose membrane and also binds difficult to bind proteins such as glycoproteins.

Characteristics

- Very high binding capacities
- Minimal background: High signal to noise ratio
- Remains flexible and non-brittle after processing
- Chemically resistant to harsh reagents making it a convenient matrix for protein sequencing
- Higher strength than pure nitrocellulose
- Compatible with all types of detection methods

Downstream Applications

- Ideal support matrix for protein sequencing
- For high performance, reproducible western blotting
- For protein staining, glycolipid detection and immunoblotting

Nylon-66 Membrane Type - SNNP and SNNPZ

SNNP: Internally supported Nylon-66 membranes
SNNPZ: Positively charged for enhanced binding of negatively charged molecules

Characteristics

- Very high binding capacities for nucleic acid molecules
- Easy wettability
- Ultraviolet cross linkable
- Chemically resistant; tolerant to alkali fixation

Applications

- Nucleic acid transfers
- Dot/slot blots
- Colony/plaque lifts
- Multiple reprobing

ORDERING INFORMATION

Type		Size		Pore Size		XX	XX	Sterility		Pack Size	
Type	Code	Dimensions	Code	Pore Size	Code				Code	Pack Size	Code
SCN	SCNX	82mm***	13	0.2µm	01			Non Sterile	1	25	11
SCNJ**	SCNJ	90mm***	14	0.45µm	02					50	03
SVF*	SVFX	137mm***	20							Roll	01
SNNP*	SNNP	142mm***	16								
SNNPZ*	SNPZ	80mm x 100mm	88								
		150 x 150mm	87								
		200 x 200mm	86								
		300 x 300mm	85								
		3M X 300mm	84								
		3M x 240mm	83								
		3M x 100mm	81								
		3M x 150mm	95								

* SVF, SNNP and SNNPZ are available in a maximum width of 240 mm
** SCNJ is available in a maximum width of 150mm
*** Diameter

Example:

SCNJ	13	02	XX	XX	1	03

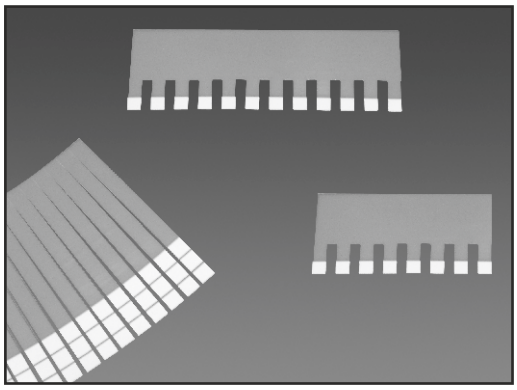
Selection Chart

This selection chart highlights the suitability of various mdi membranes for different applications based on their properties.

Membrane Type	SCN	SCNJ	SNNP	SNNPZ	SVF
Biomolecules					
Nucleic Acids	R	R	HR	HR	NR
Proteins	HR	HR	R	R	R
Transfer Method					
Dot Blot	R	R	R	R	R
Colony or Plaque lift	HR	HR	R	R	NR
Electrotransfer	R*	R*	HR	HR	HR
Capillary Blot	R	R	R	R	R
Vacuum Blot	R	R	R	R	R
Alkaline Transfer	NR	NR	R	R	R
Molecule Fixation					
Baking	R	R	R	R	NR
Drying	R	R	R	R	R
UV Crosslinking	P	P	HR	HR	R
Alkali Fixation	NR	NR	R	R	R
Molecule Removal	NR	R	NR	NR	R
Detection Method					
Colorimetric	HR	HR	R	R	R
Radiolabelled	R	R	R	R	R
Luminesence	R	R	P	P	R
Fluorescence	R	R	P	P	R
Staining	R	R	P	P	R
Reprobing					
Once	NR	R	R	R	R
Multiple	NR	R	R	R	R

HR = Highly Recommended
R = Recommended
R* = Recommended for Proteins only
P = Possible
NR = Not Recommended

Dipsticks and Combs



Dipsticks for Immunodiffusion

mdi dipsticks for dot blot tests are convenient devices for conducting rapid enzyme immunoassays. These are particularly suited for semiquantitative analysis. These dipsticks have one or more membrane pads mounted on an inert plastic tab and are used for dot ELISA based on diffusion principle.

Types Available

Type DCN uses NC membrane and is most commonly used for protein spots. DCN can have one or more pads in the same dipstick.

Application

The dipsticks find application in analysis of multiple parameters in a given sample, to be analysed at the same time.

Sizes Available

Normally 6 mm x 75 mm dipsticks with 6 mm square membrane pads are used. However, other sizes can be produced as specified.

Combs for Immunodiffusion

Type CCN is a comb with 8 or 12 legs which fits into a normal ELISA plate. It allows 8 or 12 samples to be tested at the same time.

ORDERING INFORMATION

Type	Pad Size (mm)	Dipstick Length	No. of Pads
DCN-II	4	Normally 75 mm, Maximum 100 mm	Maximum 20
	5		
	6		

Type	Pad Size	Comb Size	Leg Spacing	No. of Pads
CCN-12 12 Leg	5 mm	104 x 35 mm	3.7 mm	1
CCN-8 8 Leg	5 mm	69 x 35 mm	3.7 mm	1
CCN-II, 10 Leg	4 mm	95 x 82 mm	5 mm	Max. 8

To order specify the length, width, and number of membrane pads required in the dipsticks and/or combs.

Filters for Biological Applications

mdi Filters for Biologicals are specially designed filtration devices for filtration of culture media, culture soups, serum solutions, nutrients, growth regulators and other sensitive solutions in the laboratory.

These filters are validated for absolute bacterial retention, hold-up volume, and protein recovery.

Filter Selection Chart

Product	Key Features	Type	Dia/ Size	Applications
Nylon Membrane Centrifugal Filters	Wide chemical compatibility	CFNN	7mm	Sterilization/clarification of very small volume, difficult to get samples (up to 500µl)
Polyethersulfone Membrane Centrifugal Filter	Low protein binding and high throughputs	CFPL	7mm	
PVDF Membrane 96 Well Filter Plates	Low protein binding	WPFX96VF	-	Processing of large number of small volume samples for sterilization, removal of cell debris and particulate matter
PES Membrane 96 Well Filter Plates	Low protein binding and high throughputs	WPFX96PL	-	
Polyethersulfone Membrane Syringe Filters	Low protein binding	SY4PL-S SY13PL-S SY25PL-S	4mm 13mm 25mm	Sterilization of high value additives such as growth hormones, vitamins, and antibiotics (<1ml) Sterilization/clarification of protein solutions, culture media etc (<10ml) Sterilization/clarification of protein solutions, Culture media etc (<20ml)
Polyethersulfone Membrane Syringe Filters with pre-filter	Low protein binding and high throughputs	SY25KG-S IKG-S	25mm 50mm	Sterilization/clarification of difficult to filter solutions up to 50ml Sterilization/clarification of protein solutions, culture media, and serum (≤1 liter)
PVDF Membrane Syringe Filters	Low protein binding	SY4VF-S SY13VF-S SY25VF-S	4mm 13mm 25mm	Sterilization of high value additives such as growth hormones, vitamins, and antibiotics (<1ml) Sterilization/clarification of protein solutions, culture media etc (<10ml) Sterilization/clarification of protein solutions, Culture media etc (<20ml)
Nylon Membrane syringe Filter	Low protein binding	SY4NN-S SY13NN-S SY25NN-S	4mm 13mm 25mm	Sterilization of Chemicals such as DMSO
Polyethersulfone Membrane Bottle Top Vacuum Filter	Low protein binding and high throughputs	Vacufil-S	75mm	Sterilization/clarification of protein solutions, culture media, and serum (≤1 liter)
Polyethersulfone Membrane Capsule Filters	Low protein binding and high throughputs	*AseptiCap KL/KS*	1"	Sterilization/clarification of protein solutions, culture media, and serum (<5 liters)

Membrane Centrifugal Filters

mdi Centrifugal Filters are meant for high value laboratory applications like sterilization, purification, particulate removal and clarification of upto 500µl of high value difficult to get biological/ chemical samples.

These are small sized filtration devices made of pigment-free polypropylene outer tube with snap-fit top cap. A smaller pigment free polypropylene tube with thermally sealed membrane filters is placed inside the outer tube. The fluid to be filtered is put inside the smaller tube.

The filter is designed for use with centrifuge machine where centrifugal force applied by the machine effects filtration.

Types Available

- Nylon Membrane Disposable Centrifugal Filter (CFNN)
- Polyethersulfone Membrane Disposable Centrifugal Filters (CFPL)

Special Features

- Absolute retention
- Ready to use: Very low hold up volume
- Fast sample preparation
- Maximum sample recovery
- Biologically inert material of construction
- Ease of handling
- Parallel filtration of multiple samples

Specifications

Membrane: Polyethersulfone, Nylon
Pore Size: 0.2µm, 0.45µm
Effective Filtration Area: 0.28 cm^2
Outer Tube Length: 42.8mm
Inner Tube Length: 21.5mm
Maximum sample volume: 750µl
Hold-up Volume: <5µl
Operating Temperature Range: 80°C
Maximum Centrifugal Force at 10,000rpm: 5600 x g
Retention Efficiency : 0.2µm: LRV>7 for *B. diminuta*
: 0.45µm: LRV> 7 for *S.marcescens*

ORDERING INFORMATION

Type	
Type	**Code**
PES Membrane Centrifugal Filters	CFPL
Nylon Membrane Centrifugal Filters	CFNN

Size	
Size	**Code**
7mm	21

Pore Size	
Pore Size	**Code**
0.2µm	01
0.45µm	02

XX	XX

Sterility	
	Code
Non Sterile	1
EO Sterile	2

Pack Size	
Pack Size	**Code**
100	04

Example:

CFPL	21	01	XX	XX	2	04

96 Well Membrane Filter Plates

mdi 96 Well filter plates are well designed high throughput devices which are useful for a wide variety of applications ranging from sample preparation, debris removal and filter based assays.

Inert, Polypropylene body, simple and robust design, with each filter well completely separated from the other ensures that there is no cross contamination.

Application

- Individual filter elements with zero cross talk
- Very low sample hold up
- Validated for removal of micro organisms from culture

Deep Well

Standard

Specifications

Types Available	Deep Well	Standard
Well Capacity	1.4 ml	350 µl
Dimensions		
Height	3.8 cm (1.5 inch)	1.4 cm (0.6 inch)
Length	12.8 cm (5.0 inch)	
Width	8.6 cm (3.4 inch)	
Filtration Area	0.25 cm^2	
Available Pore Sizes		
Hydrophilic PVDF	0.2 µm, 0.45µm	
PES	0.2 µm, 0.45µm	
Hydrophilic PP	0.45µm	
Hydrophobic PTFE	0.2 µm, 0.45µm, 1µm	
Glassfiber	1µm	
Polyethylene Frit	20µm	
Operating Conditions		
Recommended Operating Vacuum	25.4 cm Hg(10 inch Hg) or greater	
Filtration by Centrifugation	500 - 3,000 x g	

ORDERING INFORMATION

Type		No. of Wells		Well Capacity		Final Filter Pore Size		Final Filter		Pre-filter Pore Size		Pre-filter		Sterility		Pack Size	
	Code		Code		Code		Code		Code		Code		Code		Code		Code
Filter Plates	FPXX	96	A	350µl	1	0.2 µm	01	PVDF	W	0.2 µm	01	PVDF	W	Non Sterile	1	10	02
				1.4 mL	2	0.45 µm	02	PES	K	0.45 µm	02	PES	K	EO Sterile	2	50	03
						1 µm	05	Hydrophilic PP	P	1 µm	05	Hydrophilic PP	P				
						20 µm	11	Hydrophobic PTFE	T	20 µm	11	Hydrophobic PTFE	T				
								Glassfiber	G	None	XX	Glassfiber	G				
								Polyethylene Frit	F			Polyethylene Frit	F				
												None	X				

Example:

FPXX	A	1	01	W	02	W	1	02

Pre-Sterilized Membrane Syringe Filters

mdi Pre-sterilized membrane syringe filters and Inline filters for protein solutions and biological fluids like serums, serums solutions, cell culture supplements and laboratory chemicals.

Type Availables	
SYPL-S	Single layered PES membrane syringe filters for easy to filter solutions such as media, buffers and growth regulators
SY25KG-S	Special PES membrane syringe filters and Inline filters with Microglassfiber pre-filter layer for difficult to filter biological fluids such as pure sera or serum solutions etc.
SYVF-S	Hydrophilic PVDF, low protein binding filters for filtering protein solutions, buffers etc.
SYNN-S	Pre-sterilized Nylon membrane syringe filters offer wide chemical compatibility, and are used for sterile filtration of DMSO in stem cell storage facilities.

Specifications

Pore Size	0.2µm, 0.45µm		
Diameter	4mm	13mm	25mm
EFA*	0.07cm^2	0.8cm^2	4.15cm^2
Hold-Up Volume	<5µl	<20µl	<50µl
Retention Efficiency	0.2µm: LRV >7 for *B. diminuta* 0.45µm: LRV >7 for *S. marcescens*		

*Effective Filtration Area

ORDERING INFORMATION

Type	
	Code
SYPL	SYPL
SYKG*	SYKG
SYNN	SYNN
SYVF	SYVF

Size	
	Code
4mm	01
13mm	03
25mm	06

Pore Size	
	Code
0.2µm	01
0.45µm	02

Inlet/Outlet	
	Code
Female Luer Lock	M
Male Luer Slip	N

X	X

Sterility	
	Code
EO Sterile	2

Pack Size	
	Code
100	04

***SYKG is available in 25mm only**

Example:

SYKG	06	01	MN	X	X	2	04

Vacufil

mdi Pre-Sterilized Vacufil: Vacuum Filtration units comes with an extra large 75mm diameter, low protein binding Polyethersulfone membrane for filtration of buffers, biologicals like sera and culture media, and other proteinaceous solutions. These have a hydrophobic filter in the vacuum arm to prevent passage of filtrate to the pump.

Types available

Vacufil: Complete Vacuum Filtration Unit with receiver bottle

Available sizes

- 150 ml
- 250 ml
- 500 ml
- 1000 ml

Vacufil: Bottle top vacuum filtration units

These filters screw perfectly on to vacuum safe bottles with 45mm neck size.

Specifications

Pore Size
0.2 µm, 0.45µm

Membrane Diameter
75 mm

Connection
45mm (screw cap neck)

Hold-up Volume
<3ml

Retention Efficiency
0.2µm: LRV>7 for *Br. diminuta* (ATCC 19146) per cm^2
0.45µm: LRV > 7 for *Sr. marcescens* (ATCC 14756) per cm^2

Sterilization
Gamma sterilized

Maximum Operating Temperature
45 °C

Key features

- Low protein binding
- Extra large filter area
- High flow rates
- 100% Integrity tested
- No elastomers or adhesive used in sealing
- Non-toxic materials of construction

ORDERING INFORMATION

Type		Size		Pore Size		Reciever Bottle		X	X	Sterility		Pack Size	
	Code		Code		Code		Code				Code		Code
Vacufil: Bottle top vacuum filtration units	VFPX	75 mm	11	0.2µm	01	No Bottle*	XX			Gamma Sterile	3	12	08
				0.45 µm	02	150 ml	01						
Vacufil: Complete vacuum filtration unit with reciever bottles	VFPC					250 ml	02						
						500 ml	05						
						1000 ml	10						

Example

VFPC	11	02	02	X	X	3	08

* For Bottle Top Filters

AseptiCap KL/KS- Polyethersulfone Membrane Capsule Filters

Microbially Validated as per ASTM F 838-05

Complies with USFDA 21 CFR 210.3 (b) (6)

Meets and Exceeds USFDA 21 CFR 177.1520

Polyethersulfone membrane capsule filters are self contained, ready to use, disposable filtration devices that contain a mini cartridge filter element sealed inside a polypropylene housing. These offer highest packing density of the membrane resulting in a very compact capsule offering long service life.

Radiation Sterilizable: *AseptiCap KL/KS -γ*

Autoclavable: *AseptiCap KL/KS*

Specifications

Construction			
Final Filter Pore Size	0.1 µm	0.2 µm	0.45 µm
Prefilter Pore Size (in case of *AseptiCap KS)*	0.2 µm, 0.45 µm	0.8 µm, 0.65 µm, 0.45 µm	0.8 µm, 0.65 µm
Membrane	Hydrophilic PES		
Support Layer	Polyester		
Body and Core	Polypropylene		

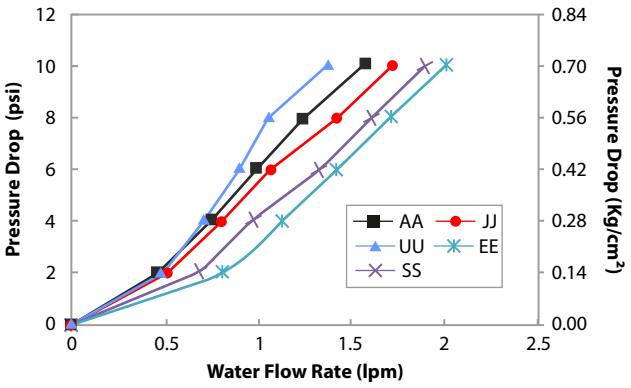
Integrity Testing/Retention			
Bubble Point	≥ 31 psi (2.18 Kg/cm^2) with 50% IPA/Water Solution	≥ 50 psi (3.52 Kg/cm^2) with Water	≥ 30 psi (2.11 Kg/cm^2) with Water
Microbial Retention	LRV >7 for *Acholeplasma laidlawii* (ATCC 23206) per cm^2	LRV >7 for *Brevundimonas diminuta* (ATCC 19146) per cm^2	LRV >7 for *Serratia marcescens* (ATCC 14756) per cm^2

Size				
Size	1″	2″	5″	8″
Effective Filtration Area (Nominal)	250 cm^2	500 cm^2	1000 cm^2	2000 cm^2
Vent and Drain	¼″ Hose Barb with platinum cured Silicone 'O' rings for 2″, 5″ and 8″ Capsule Filters			

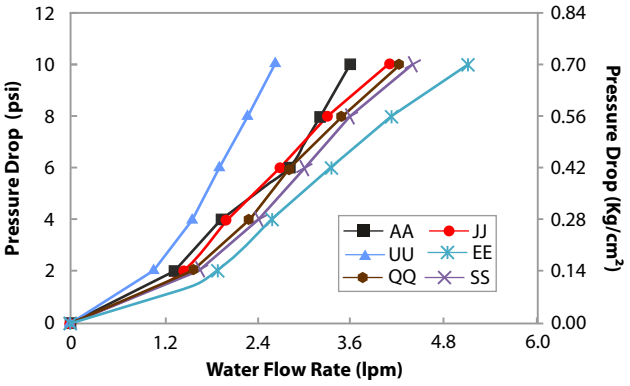
Operational		
Max. Operating Temperature	80 °C @ ≤ 30 psi (2 Kg/cm^2)	
Max. Differential Pressure	60 psi (4 Kg/cm^2) @ 30 °C	
Sterilization	By Irradiation	***AseptiCap KL/KS*** *-γ*: Gamma Irradiatable up to 50 kGy
	By Gas	***AseptiCap KL/KS***: Sterilizable by Ethylene Oxide
	By Autoclave	***AseptiCap KL/KS*** *-γ*: Autoclavable at 125 °C for 30 minutes, 1 cycle after gamma irradiation ***AseptiCap KL/KS***: Autoclavable at 125 °C for 30 minutes, 25 cycles **These cannot be in-line steam sterilized**
Shelf Life	2 years after Gamma sterilization 3 years after Ethylene Oxide sterilization	
pH Compatibility	Compatible with pH range of 1-10	

Water Flow Rates

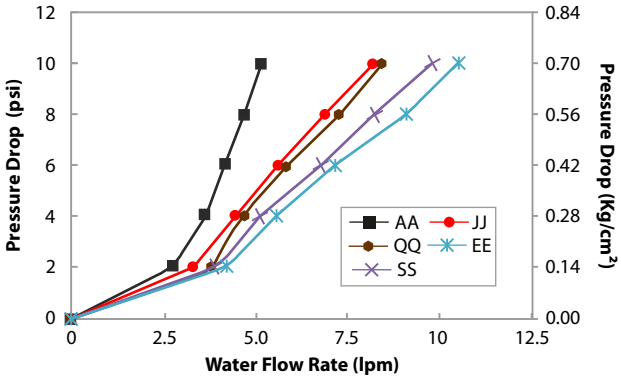
0.2 µm *AseptiCap KS* -γ, 1" Capsule Filters



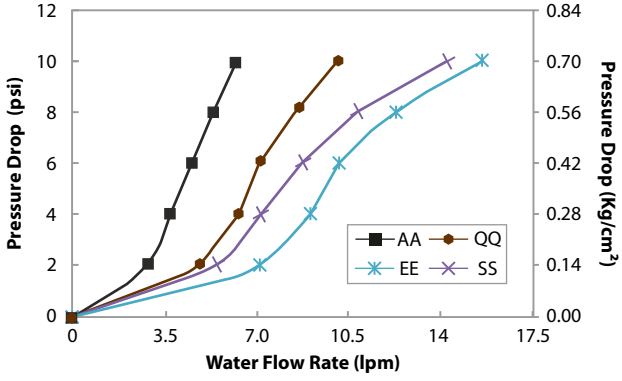
0.2 µm *AseptiCap KS* -γ, 2" Capsule Filters



0.2 µm *AseptiCap KS* -γ, 5"Capsule Filters



0.2 µm *AseptiCap KS* -γ, 8"Capsule Filters



End Connection Type:

A: ¼" Stepped Hose Barb **Q:** Single Step ½" Hose Barb **E:** 1½" Sanitary Flange **J:** Quick Connector **S:** ¾" Sanitary Flange **U:** Female Luer Lock
D: ½" Hose Barb

Ordering Information

AseptiCap KL/KS and *AseptiCap KL/KS* -γ

Type	Code
AseptiCap KL (Single Layer)	DKLX
AseptiCap KS (0.2 µm Upstream)	DKS1
AseptiCap KS (0.45 µm Upstream)	DKSX
AseptiCap KS (0.65 µm Upstream)	DKS3
AseptiCap KS (0.8 µm Upstream)	DKS5

Size	Code
1"	51
2"	52
5"	53
8"	57

Pore Size	Code
0.1 µm	36
0.2 µm	01
0.45 µm	02

Inlet/Outlet	Code
¼" SHB	A
¼" MNPT	B
½" MNPT*	C
½" Hose Barb	D
1½" Sanitary Flange	E
¾" Sanitary Flange	S
Quick Connector	J
Single Step ½" Hose Barb*	Q
Female Luer Lock	U
Male Luer Slip**	W
3⁄16" Hose Barb***	N
⅜" Hose Barb*	I

Radiation Sterilizable	Code
Yes	R
No****	X

Bell	Code
Yes*****	B
Bell with cover*****	C
No Bell	X

Sterility	Code
Non Sterile	1
EO Sterile	2
Gamma Sterile	3

Pack Size	Code
1	01

*1" Capsule Filters are not available with ½" Single step Hose Barb, ½" MNPT and 3/8" Hose Barb
**Male luer slip is available only in 1" capsule filter as outlet
***3/16" Hose Barb end connection is available in:
- 1" and 2" capsule filters as inlet and outlet
- 5" capsule filters as outlet only
****Gamma sterilized filters cannot be gamma irradiated again
***** Bell is available with
- ½" Hose Barb outlet connections in 1", 2", 5" and 8" capsule filters
- ¼" SHB outlet connection in 1" capsule filters only

Example:

DKSX	57	36	DD	R	X	1	01

Example for Non Sterile: DKSX5736DDRX101 **Example for Gamma Sterile:** DKSX5736DDXX301

Filters for Air / Gases

mdi offers a range of air filtration devices incorporating hydrophobic PTFE membrane. These filters are validated for absolute bacterial retention and heat stability and are ideal for sterile filtration and venting of air/gases.

The hydrophobic nature of PTFE membrane allows efficient flow of air/gases even under conditions of entrained moisture which would otherwise tend to wet the filter element and restrict the airflow.

mdi air filters are designed for long service life and are suitable for a variety of applications such as sterile venting of culture vessels, bioreactors, incubators and autoclaves, and sterilization of air/gases for fermentors and bioreactors. The table below highlights some of the applications and suitable products.

Filter Selection

Product	Key Features	Type	Dia / Size	Applications
PTFE Membrane Inline Vent Filters	Hydrophobic	*AseptiVent TF*	25mm, 37mm, 50mm	Air venting as well as sterile air filtration for small bioreactors and fermentors
PTFE Membrane Capsule Filters	Hydrophobic	*AseptiVent TF*	1"	Air venting for autoclaves and sterile air filtration for bioreactors and fermentors

AseptiVent TF- 25 mm, 37 mm, 50 mm

AseptiVent TF Disposable inline PTFE gas filters are convenient pre-fabricated devices used for sterilization of gases and as a bacterial air vent in various pharmaceutical and biopharmaceutical processes.

Microbially Validated as per ASTM F 838-05

Complies with USFDA 21 CFR 210.3 (b) (6)

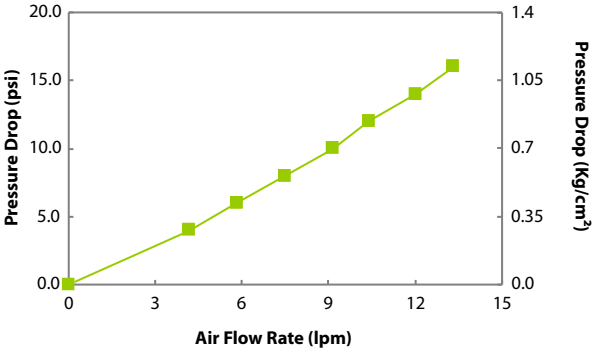
Meets and Exceeds USFDA 21 CFR 177.1520

Specifications

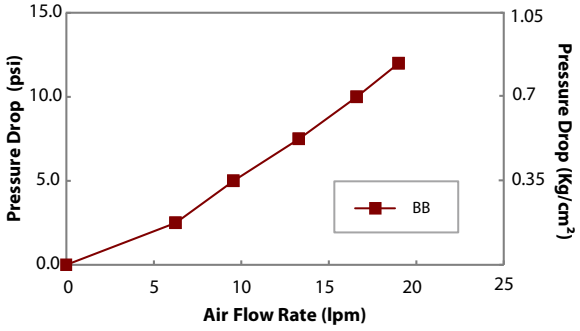
Construction			
Final Filter Pore Size		0.2 µm	0.45 µm
Membrane		Hydrophobic PTFE	
Support Layers		Polypropylene	
Body and Core		Polypropylene	
Integrity Testing/Retention			
Bubble Point		≥ 22 psi (1.54 Kg/cm^2) with 70% IPA/Water Solution	≥ 10 psi (0.7 Kg/cm^2) with 70% IPA/Water Solution
Microbial Bacterial Retention		LRV >7 for *Brevundimonas diminuta* (ATCC 19146) per cm^2	LRV >7 for *Serratia marcescens* ATCC 14756) per cm^2
Size			
Size		25 mm	37 mm 50 mm
Effective Filtration Area (Nominal)		5 cm^2	10 cm^2 20 cm^2
Operational			
Max. Operating Temperature		60 °C	
Max. Differential Pressure		42 psi (3 Kg/cm^2) @ 30 °C	
Burst Pressure		> 14 Kg/cm^2	> 8 Kg/cm^2 > 8 Kg/cm^2
Sterilization	By Gas	Sterilizable by Ethylene Oxide	
	By Autoclave	Autoclavable at 125 °C for 30 minutes, 30 cycles. Cannot be in-line steam sterilized	
Shelf Life		3 years after Ethylene Oxide sterilization	

Air Flow Rates

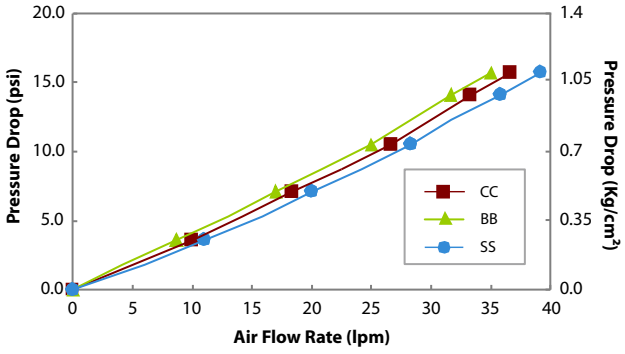
0.2 µm *AseptiVent TF*, 25 mm Filters



0.2 µm *AseptiVent TF*, 37 mm Filters



0.2 µm *AseptiVent TF*, 50 mm Filters



End Connection Type:

B: ¼" Stepped Hose Barb C: 1/8" MNPT S: ¾" Sanitary Flange

Ordering Information

AseptiVent TF- 25 mm

Type	
	Code
AseptiVent TF	ITFX

Size	
	Code
25 mm	06

Pore Size	
	Code
0.2 µm	01
0.45 µm	02

Inlet/Outlet	
	Code
Female Luer Lock	M
Male Luer Slip	N
1/4" Hose Barb	B
1/8" Hose Barb	H

XX

Sterility	
	Code
Non Sterile	1
EO Sterile	2

Pack Size	
	Code
100	04

Example:

ITFX	06	01	MN	XX	1	04

AseptiVent TF- 37 mm, 50 mm

Type	
	Code
AseptiVent TF	ITFX

Size	
	Code
37 mm	08
50 mm	10

Pore Size	
	Code
0.2 µm	01
0.45 µm	02

Inlet/Outlet	
	Code
¼" SHB*	B
1/8" MNPT	C
¾" Sanitary Flange	S

XX

Sterility	
	Code
Non Sterile	1
EO Sterile	2

Pack Size	
	Code
10	02

Example:

ITFX	08	01	BB	XX	1	02

*** Note: *AseptiVent TF*- 37 mm is available with BB connection only**

AseptiVent TF - PTFE Membrane Capsule Filters

AseptiVent TF capsule filters employ hydrophobic PTFE membrane offering absolute retention and very wide chemical compatibility making these useful for sterile filtration of air/gases as well as aggressive solvents.

Special Features

- Hydrophobic
- Absolute retention
- Wide chemical compatibility
- 100% Integrity tested
- **Total traceability:** Unique identification number on each filter

Applications

- Fermentor exhaust
- Venting of sterile collection vessels
- Cleaning sterile surfaces

Microbially Validated as per ASTM F 838-05

Complies with USFDA 21 CFR 211.72

Meets and Exceeds USFDA 21 CFR 177.1520

Integrity Testing

Pore Size	Bubble Point (70% IPA)
0.2µm	≥ 22 psi (1.55kg/cm²)
0.45µm	≥ 10 psi (0.7kg/cm²)

Specifications

Sterilization: 30 autoclave cycles of 30 minutes at 125 °C

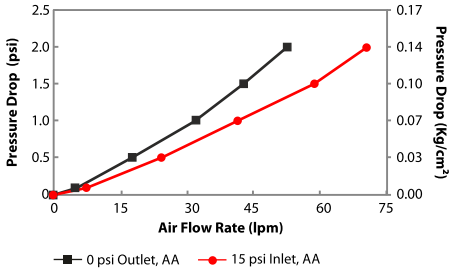
Maximum Differential Pressure: 4Kg/cm² (60psi) @ 30 °C

Maximum Operating Temperature : 80 °C @ ≤ 2Kg/cm² (30psi)

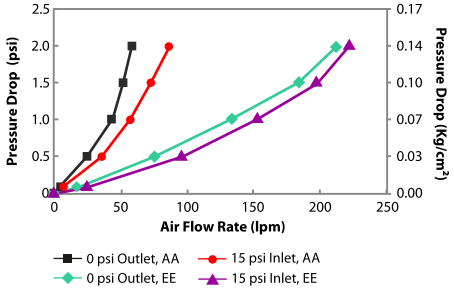
Biosafety: Passes the Biological tests for Class VI plastics as described in USP

Oxidizable Matter: Passes test as per USP

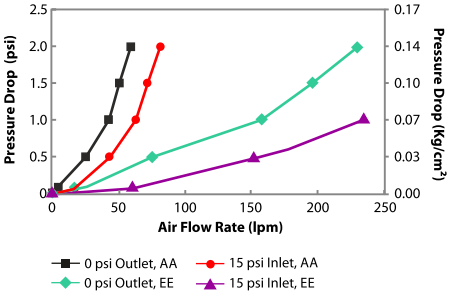
0.2 µm *AseptiVent TF*, 1″ Capsule Filters



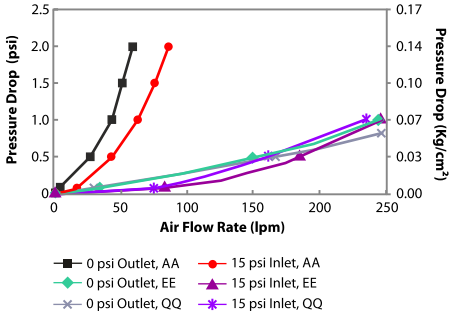
0.2 µm *AseptiVent TF*, 2″ Capsule Filters



0.2 µm *AseptiVent TF*, 5″ Capsule Filters



0.2 µm *AseptiVent TF*, 8″ Capsule Filters



End Connection Type **A:** ¼″ Stepped Hose Barb **E:** 1½″ Sanitary Flange **Q:** Single Step ½″ Hose Barb

ORDERING INFORMATION

Type	
Type	Code
AseptiVent TF	DTLX

Size	
Size	Code
1″	51
2″	52
5″	53
8″	57

Pore Size	
Pore Size	Code
0.2µm	01
0.45µm	02

I/O Connection	
Connection	Code
¼″ SHB	A
¼″ MNPT	B
½″ MNPT*	C
½″ Hose Barb	D
1½″ Sanitary Flange	E
¾″ Sanitary Flange	S
Quick Connector	J
Single Step ½″ Hose Barb*	Q
Female Luer Lock	U
Male Luer Slip**	W
3⁄16″ Hose Barb***	N
⅜″ Hose Barb*	I

X	X

Sterility	
	Code
Non Sterile	1
EO Sterile	2

Pack Size	
Pack Size	Code
1	01

*1″ Capsule Filters are not available with ½″ Single step Hose Barb, ½″ MNPT and 3/8" Hose Barb
**Male luer slip is available only in 1″ capsule filter as outlet
***3/16" Hose Barb end connection is available in:
- 1" and 2" capsule filters as inlet and outlet
- 5" capsule filters as outlet only

Example:

DTLX	51	01	AA	X	X	1	01

Ordering Information

Shipment details for customers outside India

Through Federal Express, UPS, or DHL courier (specify complete street address).
By air freight for large quantities (specify airport of discharge).
Goods usually reach destination within 5-10 days from date of shipment.
Membrane products are light weight and air freight charges usually vary between 3% to 10% of the value.

Any duties/taxes in the country of destination are the responsibility of the consignee.

Shipment details for customers inside India

The consignments can be sent through courier. Courier charges will be borne by the customer. Please specify the preferred courier and provide any form and instructions for octroi etc. that may be required for shipment.

How to order

Orders may be placed by email/phone/mail directly to Sales.

Advanced Microdevices Pvt. Ltd.

20-21, Industrial Area, Ambala Cantt - 133 006, INDIA
Tel: +91-171-2699290, 2699471
Email: info@mdimembrane.com

mdi Quality

Quality Policy

Quality is built into **mdi** products and services by not only adhering to well designed quality systems to consistently produce high quality, internationally acceptable products but also by striving to incorporate superior performance parameters into all our products and services and provide our customers with a unique performance advantage in their application. Our quality policy provides a glimpse of our commitment:

"**mdi** strives to provide to its customers products and services of highest standards possible, consistently superior, and more satisfying than competing products and complying with quality management systems."

Stride Towards Excellence

At **mdi**, our mission is to constantly strive to achieve excellence in all our endeavors by establishing systems to create excellent products and services to fulfil the needs of our customers. To achieve this we

- Frequently compare our products with competing brands
- Simulate tests for functional use
- Develop easy-to-use innovative products

We are constantly working on improvements and welcome suggestions from our customers.

Guarantee

All **mdi** products are guaranteed and are backed by our

- Technical expertise and experience of over 30 years
- 'Special **mdi** process' for consistency and repeatability
- Strict quality control and quality assurance regimen
- Certificate of Analysis accompanying all shipments

We have an unconditional replacement policy in case of any defects.

WORLD WIDE EXPORTS

MUMBAI
Tel : 022-40214436, 022-40214435
Mobile : 09323801794

AHMEDABAD
Mobile : 09328257987

BANGALORE
Mobile : 09972587761

CHENNAI
Mobile : 09972587761

DELHI
Mobile : 08295618833

HYDERABAD
Mobile : 09391935423

CAT BPGXXXX1814A

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E-mail : info@mdimembrane.com Website : www.mdimembrane.com