



DNA kits

High quality kits for DNA Extraction,
Purification and Size Selection

EXTRACTION

PURIFICATION

SIZE SELECTION

Available in Canada from...

MJS
BioLynx
INC.

1-888-593-5969 • www.biolyx.ca • tech@biolyx.ca



Porvair DNA kits

Obtaining DNA from biological samples is the first and most crucial step in molecular biology. Eluting both high quality and high yield of DNA from a wide range of biological samples can be challenging and can impact the success of downstream applications.

Our kits provide DNA free from:

Contaminants

Inhibitors

Salts

Degrading enzymes

Porvair offers a range of **easy-to-use, easy-to-choose** kits for DNA extraction, purification and size selection. Quickly recover high quality DNA from a myriad of source materials including stubborn, difficult-to-lyse biological samples.

By integrating our industry-leading proprietary filtration material, Porvair allows researchers to effortlessly and efficiently extract, purify and size select DNA.

DNA Extraction

The Porvair DNA Extraction kit delivers a protocol to isolate superior quality DNA from a wide range of samples, including difficult cell and tissue types and blood. With our high volume binding capacity, cells are efficiently lysed, DNA reliably captured and quickly eluted from our unique spin column and 96-well plate designs.

DNA Purification

DNA and Gel Purification kits are designed to be quick and easy to use. Perform phenol-free purification and elute high yield ultra-pure DNA for downstream applications.

DNA Purify & Concentrate

Clean up and concentrate DNA in as little as 5 μ l (5-10 μ g DNA) elution volume. With no wash residue carryover, this kit is perfect for concentrated purification of DNA from standard molecular techniques such as PCR and restriction enzyme digestion for further downstream applications.

DNA Size Selection

In 3 simple steps (bind, wash and elute), obtain superior quality DNA fragments of your desired size for downstream applications, such as library preparation for next generation sequencing, in under 5 minutes.

Porvair DNA Extraction



Advantages of Porvair Extraction kit:

- Excellent buffer chemistry for maximum cell lysis
- Phenol and chloroform free
- Simple workflow
- High DNA yield and purity
- Quick Protocol

The Porvair DNA Extraction kit is a quick, easy and efficient way to perform total (genomic and mitochondrial) DNA extraction and purification. The Porvair DNA Extraction kit can be used to effectively extract excellent quality DNA from cultured cells and tissues. Ultra-pure DNA obtained with Porvair's Chromatrap® solid state technology is suitable for a variety of downstream applications including PCR, MeDIP, Southern blotting, cloning and sequencing.

The Porvair DNA Extraction kit efficiently extracts and purifies total DNA from a wide range of cell numbers

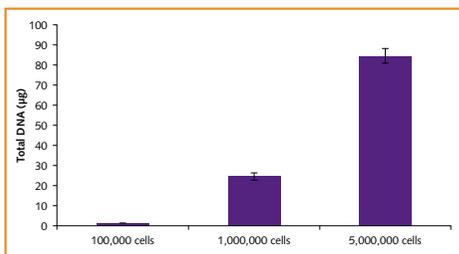


Figure 1. DNA was extracted from an endometrial cancer cell line using a range of cell numbers (1×10^5 to 5×10^6) using the Porvair DNA Extraction kit. All experiments were performed in triplicate.

Starting Material: Cultured cells (up to 5×10^6), Tissue (up to 25 mg)
Sample Size: 50 bp - 23 kbp
DNA Purity (A260/A280): 1.8 - 2.2
DNA Recovery: 98%
Elution Volume: 200 μ l
Applications: PCR, MeDIP, Southern Blot, Molecular Cloning and Sequencing
Format: Spin column or 96-well plates

The Porvair DNA Extraction kit outperforms competitor extraction kits in both DNA yield & purity

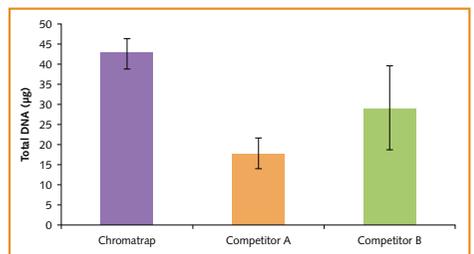


Figure 2. DNA was extracted from an endometrial cancer cell line using 2×10^6 cells using the Porvair DNA Extraction kit or competitor DNA Extraction kits. All experiments were performed in triplicate.

Porvair DNA Extraction kits are available in Spin Column and High Throughput formats. Choose our high throughput format for improved reproducibility.

Porvair Purification



Advantages of Porvair Purification kit:

- Phenol-free purification
- Less ethanol carry over
- High DNA yield and purity
- Quick and easy

Obtain ultra-pure DNA with the Porvair DNA Purification kit. Our proprietary filtration material offers higher loadings of sample material and optimal buffer chemistry for the removal of undesired impurities.

The Porvair DNA Purification kits are designed to efficiently purify and concentrate samples from PCR mixtures, ChIP samples and restriction enzyme digestions in under 5 minutes.

Sample type: ChIP samples, PCR samples, enzymatic reactions

DNA recovery: 98% recovery

Elution volume: 25-50 μ l

Size limits: 50 bp - 23 kbp

Max binding capacity: 50 μ g

Downstream applications: PCR, sequencing, microarray, ligation, cloning

High DNA yield from a wide range of (input) concentrations

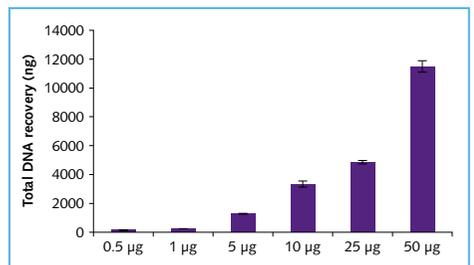


Figure 3. Total DNA recovery (ng) of a range of DNA concentrations (0.5-50 μ g) using the Porvair DNA Purification kit.

Porvair DNA Purification kits are available in Spin Column and 96-well plate format. Choose our high throughput plate format for improved reproducibility and sensitivity.

Porvair Purify & Concentrate



Advantages of Purify & Concentrate kit:

- High concentration, low volume
- Ultra-pure DNA
- Maximum binding capacity
- 5 minute workflow
- Ideal for PCR and Restriction Digestion

Purify and concentrate up to 10 µg of DNA in as little as 5-10 µl. The perfect kit for cleaner and more concentrated samples for downstream applications such as library preparation for next generation sequencing.

Sample type: ChIP samples, PCR samples, enzymatic samples

DNA recovery: 10 µl elution - up to 98%

Size limits: 50 bp - 23 kbp

Max binding capacity: 10 µg

Elution volume: 5-10 µl

Downstream applications: PCR, sequencing, microarray, ligation, cloning

Total DNA recovery from low range of DNA concentrations

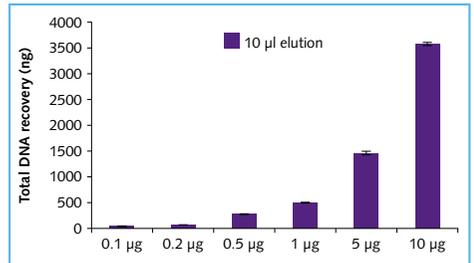


Figure 4. Total DNA recovery (ng) of a range of DNA concentrations (0.1-10 µg) using the Porvair DNA Purify & Concentrate kit, samples were eluted in 10 µl DNA Elution Buffer.

Porvair Gel Purification



The Porvair Gel Purification kit efficiently purifies DNA from agarose gels. Buffers are optimised to remove any unwanted impurities. Using our filtration media, Porvair outperforms competitor kits with higher loading of active material and higher yields of extracted DNA from standard, low-melt agarose gels in TAE (Tris-acetate/EDTA) or TBE (Tris-borate/ EDTA) buffer and from enzymatic reactions.

Completely recover and purify high amounts of DNA from up to 400 mg agarose gels. Compatible for low-melt gels prepared in TAE or TBE buffers. Perfect for extraction of DNA fragments of 50 bp - 43 kbp.

DNA yield from agarose gels using the Porvair DNA Gel Extraction kit vs other market leading kit

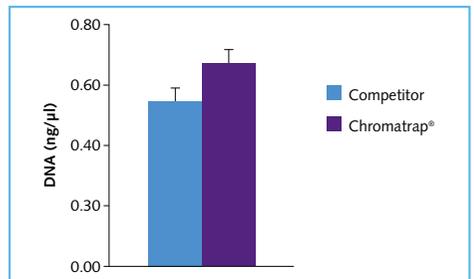
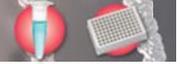


Figure 5. Gel band excision of a 200 bp marker for DNA purification using the Porvair Gel Purification kit versus competitor.

Porvair Size Selection



Advantages of Size Selection kit

- *Precise Bead-free Size Selection Columns*
- *Easy-to-choose Fragment Size*
- *Ideal for removal of < 150 bp for library preparations*
- *Quick assay < 5 minutes (fix)*

The Porvair Size Selection kit is designed to easily select your desired size of DNA fragments. Completely bead-free and flexible, you can now remove undesirable <150 bp fragments and choose your desired DNA size with ethanol selection.

Efficient purification and size selection of 50-200 bp sheared salmon sperm DNA analysed by Bioanalyser

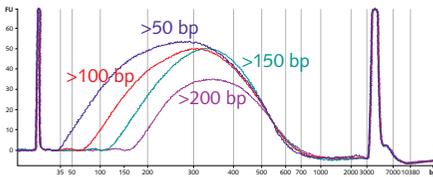


Figure 6 (a)

A - Bioanalyser traces of the salmon sperm size selection and purification. A - 1 in 40 dilution was made of each purified sample in nuclease free water and 1 μ l of the dilution was analysed using a High Sensitivity DNA chip on an Agilent 2000 bioanalyser.

Efficient purification and size selection of 50-200 bp sheared salmon sperm DNA

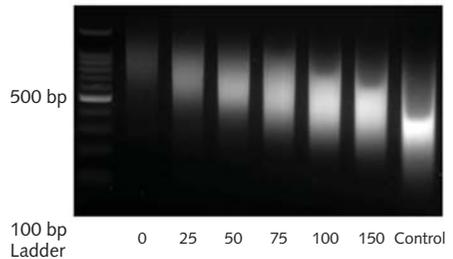


Figure 6 (a)

B - Chromatrap®'s Size Selection kit was used to purify DNA excluding sizes from 50-200 bp. 10 μ g of salmon sperm DNA fragmented by sonication (50- 1000 bp) was used per sample. Following purification, 10 μ l from each 30 μ l elution was loaded on 2% agarose gel.

Other products available from Porvair

Complete DNA kits contain everything you need to perform the clean-up including filter plate, collection plate and all necessary buffers. Single DNA plates are sold in packs of 4 and do not include collection plates or buffers.

Complete DNA Clean up kits

Product	Quantity	Catalogue no.
DNA Extraction high throughput 96-well plate kit with 2 plates and all buffers etc.	2	500261
DNA Size Selection high throughput 96-well plate kit with 2 plates and all buffers etc.	2	500263
DNA Purification high throughput 96-well plate kit with 2 plates and all buffers etc.	2	500220
DNA Purify and Concentrate high throughput 96-well plate kit with 2 plates and all buffers etc.	2	500240

Single DNA plates

Product	Quantity	Catalogue no.
DNA Extraction plate only	4	500270
DNA Size Selection plate only	4	500271
DNA Purification HT plate only	4	500272
DNA Purify & Concentrate HT plate only	4	500273

High quality PCR microplates

Porvair premium polypropylene PCR plates compliment our DNA kits. They are compatible with the majority of 96-well block PCR and sequencing instruments. Our range includes no-skirt, half-skirt and fully skirted plates with 350 µl wells and also 200 µl Low Profile versions. To ensure

compatibility with robotics, these DNase/RNase- and pyrogen-free plates feature high rigidity to minimise distortion before and after thermal cycling. Self-adhesive aluminium sealing strips and foils are also available.



PCR plates – polypropylene

Plate description	Qty/pack	Cat. no.
96-well PCR microplate, polypropylene, DNase, RNase free, no skirt, standard profile	100	286101
96-well PCR microplate, polypropylene, DNase, RNase free, no skirt, low profile	100	286102
96-well PCR microplate, polypropylene, DNase, RNase free, no skirt, standard profile, elevated	100	286103
96-well PCR microplate, polypropylene, DNase, RNase free, half skirt, low profile	100	286104
96-well PCR microplate, polypropylene, DNase, RNase free, half skirt, standard profile	100	286105
96-well PCR microplate, polypropylene, DNase, RNase free, half skirt, standard profile, elevated	100	286106
96-well PCR microplate, polypropylene, DNase, RNase free, semi-skirt, low profile, elevated	100	286107
96-well PCR microplate, polypropylene, DNase, RNase free, full skirt, low profile	100	286108
96-well PCR microplate, polypropylene, DNase, RNase free, full skirt, low profile, Megabace™	100	286109
96-well PCR microplate, polypropylene, DNase, RNase free, half skirt, straight sided, standard profile	100	286110
Aluminum foil strips, for sealing single row of PCR plate or 8-tube PCR strip	50	Foil-8-Strip
ThermalSeal RT2RR™ thermal cycler film for real-time PCR – 50 µm films	100	229521
AlumaSeal 96® aluminium seal for PCR and storage in 96-well plates with raised rims	100	229497

porvair
sciences

www.microplates.com

P/N 420014 © Porvair Sciences Limited 2018. E&OE. All trademarks acknowledged.

MJS
BioLynx
INC.

1-888-593-5969 • www.biolyinx.ca • tech@biolyinx.ca