



DNA kits

High quality kits for DNA Extraction,
Purification and Size Selection



The background of this section features a green-tinted molecular structure graphic with various green spheres connected by black lines. Overlaid on this background are three large, semi-transparent text blocks: "EXTRACTION" in yellow at the top left, "PURIFICATION" in white in the center, and "SIZE SELECTION" in white at the bottom left. A faint, larger watermark of the "porvair sciences" logo is also visible in the background.

EXTRACTION

PURIFICATION

SIZE SELECTION

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

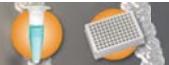
DNA and Gel Purification kits are designed to be quick and easy to use. Perform phenol-free purification and elute high yield ultra-pure DNA for downstream molecular biological applications.

DNA Purify & Concentrate

Clean up and concentrate DNA in as little as 5 µl (5-10 µg 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.



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 blot, Molecular Cloning and Sequencing.

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

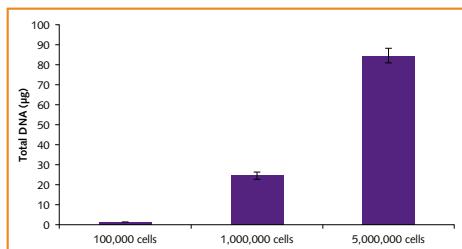


Figure 1. DNA was extracted from an endometrial cancer cell line using a range of cell numbers (1×10^5 to 5×10^6) using the Porvair DNA Extraction kit. All experiments were performed in triplicate.

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 μl

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

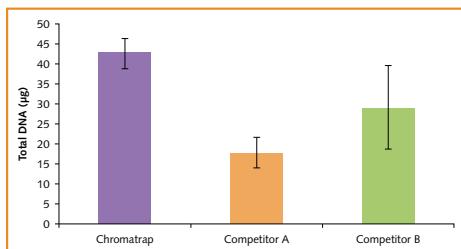
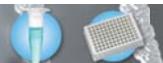


Figure 2. DNA was extracted from an endometrial cancer cell line using 2×10^6 cells using the Porvair DNA Extraction kit or competitor DNA Extraction kits. All experiments were performed in triplicate.

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



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 µl

Size limits: 50 bp - 23 kbp

Max binding capacity: 50 µg

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

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

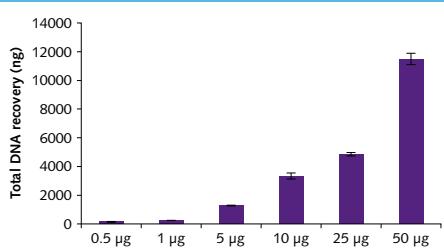


Figure 3. Total DNA recovery (ng) of a range of DNA concentrations (0.5-50 µg) using the Porvair DNA Purification kit.

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

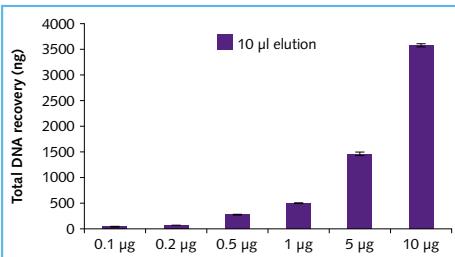


Figure 4. Total DNA recovery (ng) of a range of DNA concentrations (0.1-10 µg) using the Porvair DNA Purify & Concentrate kit, samples were eluted in 10 µl DNA Elution Buffer.

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

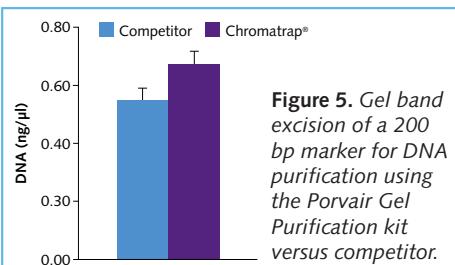
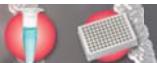


Figure 5. Gel band excision of a 200 bp marker for DNA purification using the Porvair Gel Purification kit versus competitor.



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 <150bp fragments and choose your desired DNA size with ethanol selection.

Efficient purification of 50-200 bp fragments from a full range of DNA sizes

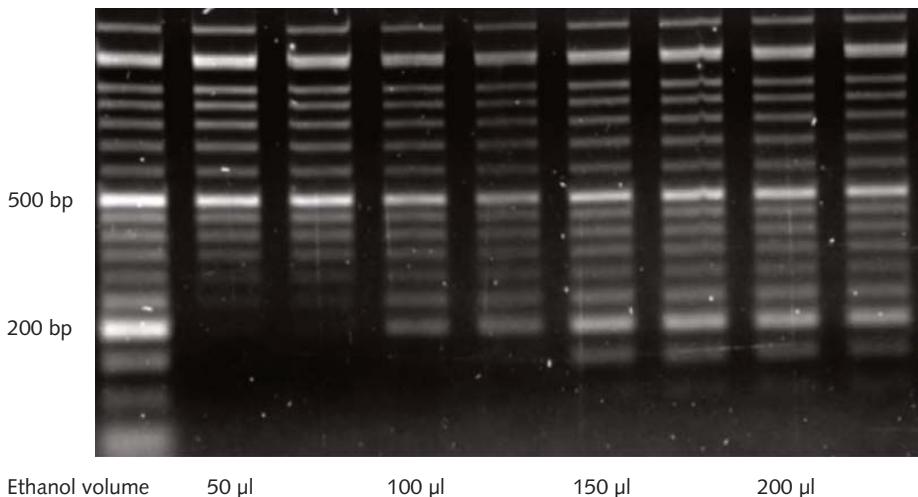


Figure 6. Efficient purification of 50-200 bp fragments from a full range of DNA sizes.

Porvair's Size Selection Kit was used to purify DNA excluding fragment sizes from 50-200 bp.

10 μ l of DNA ladder (50-200 bp) was used per sample. Highly efficient DNA recovery within the expected size range is clearly demonstrated.

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. DNA single plates are bulk packed in sets of 4 and do 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

DNA single plates

Product	Quantity	Catalogue no.
DNA Extraction microplate only - pack of four	4	500270
DNA Size Selection microplate only - pack of four	4	500271
DNA Purification HT microplate only - pack of four	4	500272
DNA Purify & Concentrate HT microplate only - pack of four	4	500273

Lab startup bundles

**Set up your Lab the right way with
affordable outperforming kits**

3 for 2 DNA kits

Whether you are setting a new lab (congratulations!), having a spring clean or looking for new and easier ways to perform standard molecular techniques, Porvair understands that choosing kits can be a laborious and expensive challenge which is why we are here to help.

With our 3 for 2 offer you get the kits you need to complete your lab at a cost-effective If you are interested in purchasing 2 or more kits from our DNA range please get in touch with our team who are happy to discuss DNA bundles that we have on offer.

Popular Bundles

DNA PURIFICATION
+
SIZE SELECTION

DNA EXTRACTION
+
SIZE SELECTION

GEL PURIFICATION
+
SIZE SELECTION

Porvair Sciences offers a complete range of microplates for storage, collection, assays, ELISA and tissue culture. For detailed information on our other products, please request our other brochures or visit our website www.microplates.com

Porvair Sciences Assay Plates brochure
(16 pages)



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