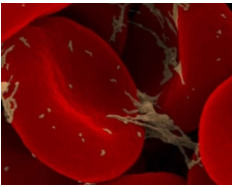


High Throughput Isolation Kits

Automated and Manual Nucleic Acid Purification Kits utilizing paramagnetic beads and 96-well plates or filter binding columns



Blood



Tissue



Forensics



Plant DNA

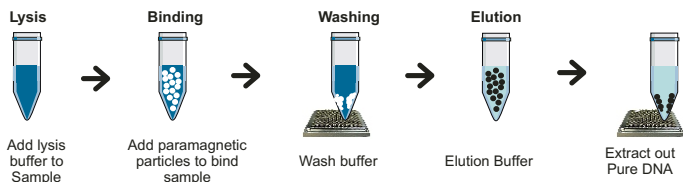


Magnetic / Filter Binding Kit Series

DNA/RNA Cleanup • Plasmid • Genomic • RNA

DNA purification with paramagnetic beads

Aurora's Magnetic Binding kits provide a solution for laboratories searching for high quality results using automated liquid handling workstations. Aurora's Magnetic Binding kits utilize paramagnetic particles to isolate high quality yield and purity from both DNA and RNA samples. Samples are mixed with our special buffer which lyses the cell and releases the DNA under denaturing conditions. After adjusting the binding conditions, DNA binds to the surface of the magnetic binding particles while impurities are effectively removed with a few quick wash steps. Most kits are scalable and can be used manually or with a variety of robotic platforms. Paramagnetic bead based technology is described pictorially below.



1. LYSIS - Add lysis buffer to lyse the sample.
2. BINDING - Add the magnetic binding paramagnetic beads
3. WASHING - Add wash buffer to sample.
4. ELUTION - Add elution buffer to sample
5. EXTRACT pure DNA from solution.

Magnetic Sequencing/PCR Clean Up Solutions

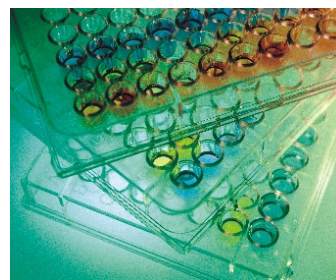
Magnetic Binding Dye Terminator Kit

Dye-Terminator Removal utilizing paramagnetic beads

Utilizing Aurora's highly efficient binding magnetic binding technology, the Magnetic Binding Dye Terminator Kit is designed to clean-up dye terminator reactions prior to automated sequencing analysis. The system is ideally suitable for fully automated dye terminator clean-up for labs processing large numbers of samples.

- Long read lengths
- Phred 20 scores averaging over 700
- Pass rate of 85% or higher
- Scalable and can be automated
- 96 or 384 well format

- Compatibility with BigDye v 3.1, 1.1 and other commonly used dyes
- Can be adapted to standard liquid handling robots including Aurora's VERSA™ Series



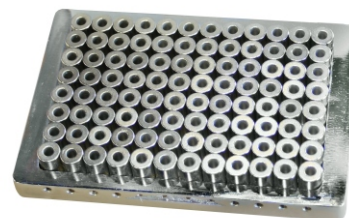
Product No.	Item	Vol.
MB-9700-50	Dye Termination	50mL
MB-9700-500	Dye Termination	500mL

Magnetic Binding PCR Purification Kit

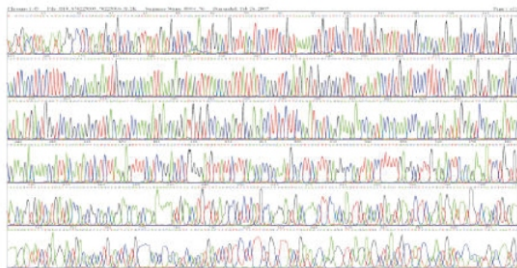
PCR Purification System utilizing paramagnetic beads

The Magnetic Binding PCR Purification system utilizes a magnetic beads based purification method to recover highly concentrated DNA from PCR products. By using the highly efficient binding ability of our Magnetic Binding technology, DNA fragments are selectively bound to the surface of the Magnetic Binding particles. Impurities such as salts, primers, primer-dimers, dNTPs are removed. Purified DNA is ready for downstream applications such as microarrays, automated fluorescent DNA sequencing and restrictive enzyme digestion. The system can be used manually or used in an automated processing.

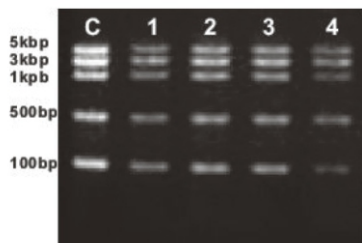
- Concentrates DNA
- Efficiently removes excess primers, primer-dimers, dNTPs and salts.
- Scalable and can be automated.
- 96 or 384 well format



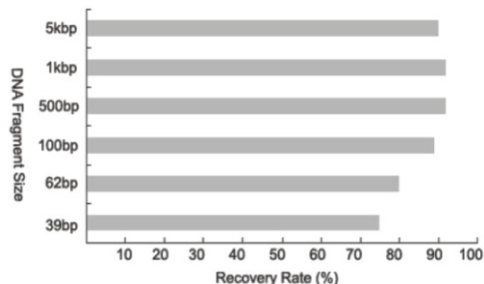
Product No.	Item	Vol.
MB-9720-5	PCR Purification	5mL
MB-9720-50	PCR Purification	50mL
MB-9720-500	PCR Purification	500mL



Dye-terminator sequencing of 1.2 kb PCR product template using the PCR Purification kit and sequencing on an ABI PRISM 3730 DNA Analyzer using an internal primer.

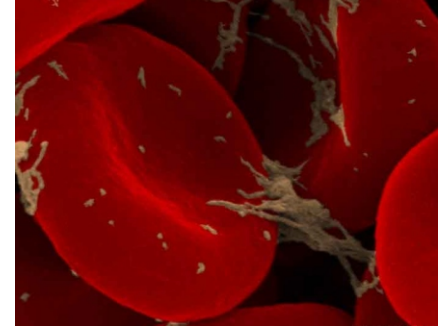


50 µL of DNA marker was added to negative PCR Reactions and then purified with the PCR Purification kit. C: Primary DNA Marker (M04-01) Lanes 1-4: 10 µL of each eluted was loaded onto a 1.0% precast agarose gel



Genomic DNA Isolation From Blood

Aurora's magnetic blood DNA isolation kits are designed to meet any size lab usage requirements. All of our kits are designed to be used manually or in automated processing. Utilizing our Magnetic Binding paramagnetic beads, pure DNA is easily bound to the paramagnetic bead particles, and impurities are removed efficiently after just a few quick wash steps. The resulting high quality DNA is eluted with Elution Buffer or DEPC water. Purified DNA is then ready for use with downstream applications such as PCR, qPCR, and Southern blots



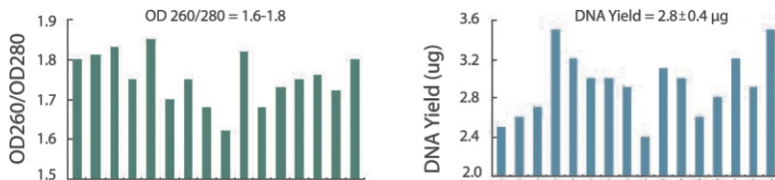
- High Purity - DNA can be used for most downstream applications
- Safe - No phenol/chloroform extraction
- Quality - Complete removal of contaminants and inhibitors
- Reliable - Consistent yields at unsurpassed quality
- Automation - Manual protocols can easily be adapted for use on robotic workstations, including Aurora's VERSA™ Series

AB96 Magnetic Binding Blood DNA Kit

Isolation of genomic DNA from whole blood samples using paramagnetic beads

The Magnetic Binding Blood DNA kit, incorporating magnetic based beads, is designed for the purification of DNA from up to 200 µL of whole blood. It can be easily used in conjunction with automated purification protocols on robotic workstations supporting 96 well plates, including Aurora's VERSA™ Series .

Catalogue No	Preps
MB-7899-1	1 x 96
MB-7899-4	4 x 96
MB-7899-20	20 x 96



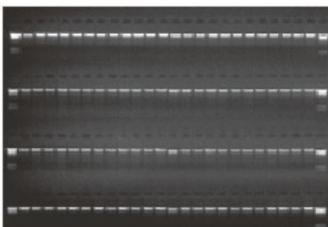
DNA quality and yield from 100 µL human whole blood using the Magnetic Binding Blood DNA kit.

AB96 Filter Column Binding Blood DNA Kit

Isolate total DNA from whole blood & related body fluids using a 96-well plate format

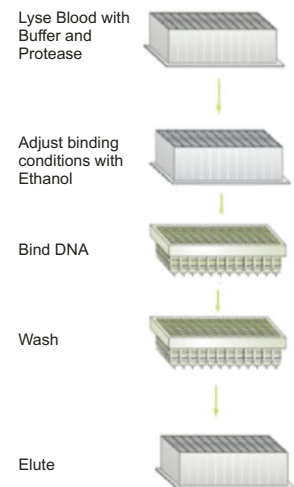
The AB96 Filter Column Binding Blood DNA Kit combines special filter column technology into a 96 well format plate. Up to 200 µL of healthy whole blood can be purified from each sample. This streamlined procedure and convenient high throughput design allows for 96 whole blood samples to be processed in under 1 hour.

- Can be carried using vacuum manifold or plate centrifuge
- Speed - Purify 96 samples in less than 1 hour
- Safe - No phenol/chloroform extraction
- Reliable - Optimized buffers guarantee pure DNA from fresh, frozen



Gel Electrophoresis of 96 DNA preparations purified from one 200 µL sample of whole blood using the AB96 Filter Column Binding Blood DNA kit. End lanes contain Lambda DNA HindIII markers.

Catalogue No.	Preps
FB-9918-1	1 x 96
FB-9918-4	4 x 96
FB-9918-20	20 x 96

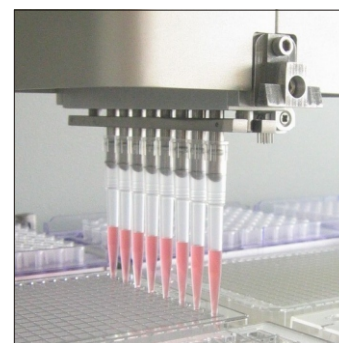
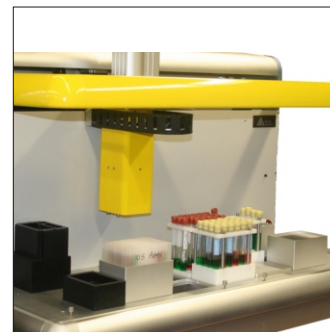


Large Scale Genomic DNA Isolation From Blood

Magnetic Binding Blood Lysis Kit (10 mL)

Aurora's Magnetic Binding Blood Lysis kit combines centrifugation and magnetic beads to isolate DNA in 60 minutes from a 10 mL sample composed of whole blood, buffy coat, and cultured cells. First, lysis buffer is added, releasing nuclei from the red blood cells. After a quick centrifugation step, the supernatant is discarded and the cell nuclei are re-suspended and processed for DNA isolation, at which point binding, washing and eluting occurs. High molecular weight genomic DNA is eluted as the end product.

- **Fast** - Process 24 samples at a time in approximately 1 hour
- **Cost** - Affordable preparation-per-cost compared to competitors
- **Reduce plastic ware usage**
- **Reliable** - Consistent yields and unsurpassed quality
- **High Purity** - DNA can be used for most downstream applications
- **Automation** - Works on standard robotic liquid handling workstations, such as Aurora's VERSA™ Series



Sample Amount	Yield (µg)	Sample Amount	Yield (µg)	Sample Amount	Yield (µg)
3 mL	120(µg)	5 mL	210(µg)	10 mL	350(µg)
3 mL	135(µg)	5 mL	180(µg)	10 mL	300(µg)
3 mL	101(µg)	5 mL	220(µg)	10 mL	402(µg)
3 mL	103(µg)	5 mL	170(µg)	10 mL	390(µg)

Catalogue No
MB-0799-1
MB-0799-4

Preps
1x24
4x24

Genomic DNA Isolation From Tissue

AB96 Filter Column Binding Tissue DNA Kit

Isolate total DNA from animal tissue and cultured cells in a 96-well format.

By combining filter column technology with 96 well plates, the AB96 Filter Column Binding Tissue DNA Kit provides a high-throughput mechanism for purification of genomic DNA from either fresh or frozen animal cells and tissues in a standardized 96-well plate format. The resulting purified DNA is suitable for most downstream applications such as PCR, restrictive enzyme digestion and hybridization techniques.

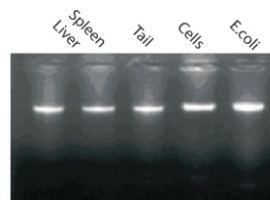
Catalogue No
FB-9914-1
FB-9914-4
FB-9914-20

Preps
1 x 96
4 x 96
20 x 96

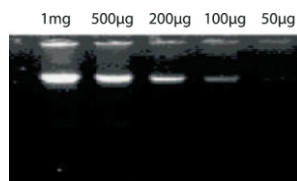
AB96 Magnetic Binding Tissue DNA Kit

Isolate genomic DNA from tissue or cultured cells with paramagnetic beads

The AB96 Magnetic Binding Tissue DNA kit allows rapid and reliable isolation of high-quality genomic DNA from less than 30 mg tissue, or less than 1 x10 cultured cells. This kit allows single or multiple simultaneous processing of samples under 1 hour. There is no need for phenol/chloroform extractions and time consuming steps such as CsCl gradient ultracentrifugation or precipitation with alcohols. Purified DNA is ready for use in downstream applications such as PCR, Southern blotting and restrictive enzyme digestion. This tissue DNA kit can be used in conjunction with automated work stations, such as Aurora's VERSA™ Series. Supported tissue sample types include cultured cells, mouse tails, liver, brain, kidney, spleen, fish fin, etc.



Agarose gel analysis of genomic DNA isolated with our AB96 Magnetic Binding Tissue DNA kit from samples (shown above). 2% of purified DNA was loaded on an 0.8% agarose gel.



Agarose gel analysis of genomic DNA isolated with our AB96 Magnetic Binding Tissue DNA kit from different amounts of rat liver (1mg, 500 µg, 200 µg, 100 µg and 50 µg) 20% of purified DNA was loaded on an 0.8% agarose gel.

Catalogue No
MB-4881-1
MB-4881-4
MB-4881-20

Preps
1 x 96
4 x 96
20 x 96

Genomic DNA Isolation from Forensic Samples

AB96 Magnetic Binding Forensic DNA Kit

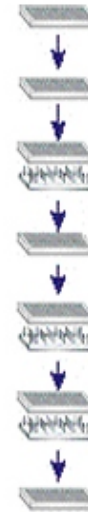
Isolation of genomic DNA from forensic case samples with paramagnetic beads.

The AB96 Magnetic Binding Forensic DNA Kit allows for the rapid and reliable isolation of high-quality genomic DNA from forensic case samples such as dried blood, buccal swabs, sperm, chewing gum and other forensic case samples. This kit allows single or multiple simultaneous processing of samples in less than 1 hour. There is no need for phenol/chloroform extractions, and time-consuming steps such as CsCl gradient ultracentrifugation, or precipitation with alcohols.

- **High Purity** - DNA can be used for most downstream applications
- **Safe** - No phenol/chloroform extraction
- **Quality** - Complete removal of contaminants and inhibitors
- **Reliable** - Consistent yields at unsurpassed quality
- **Automation** - Manual protocols can easily be adapted for use on robotic workstations, including Aurora's VERSA™ Series

Catalogue No
FB-9683-1
FB-9683-4
FB-9683-20

Preps
1 x 96
4 x 96
20 x 96



- Lyse
- Add magnetic binding beads to bind DNA
- Magnetic beads-DNA
- Wash beads-DNA and dry the beads
- Magnetic beads-DNA
- Wash and Elute DNA
- Transfer DNA

Plasmid Isolation Systems

AB96 Filter Column Binding Plasmid DNA Kit

Rapidly purify plasmid DNA in a 96-well format using lysate clearance plates.

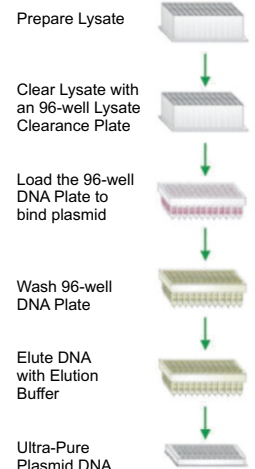
The AB96 Filter Column Binding Plasmid DNA Kit is optimized for the preparation of up to 96 plasmid minipreps in parallel, in one hour. Lysate clearance filter plates replace time-consuming centrifugation involved in the cleaning of bacterial alkaline lysates. This Plasmid DNA kit is ready-to-go, and contains all necessary components for plasmid DNA purification in a 96-well format. The resulting purified plasmid DNA is suitable for the most sensitive downstream applications such as routine screening or automated DNA sequencing. The AB96 Filter Column Binding Plasmid DNA Kit 96 well DNA plates are ideal for usage with Aurora's automated robotic liquid handling VERSA™ Series workstations.



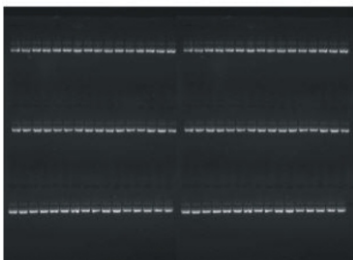
- **Clear Lysate with 96-well Lysate Clearance Plate**
- **No resin, slurries or alcohol precipitations**
- **Highly purified plasmid DNA in less than 45 minutes**
- **Reproducible yields of molecular biology grade plasmid DNA**
- **Fast, easy and adaptable with automated liquid handlers such as Aurora's VERSA™ Series workstations.**

Catalogue No
FB-9013-1
FB-9013-4
FB-9013-20

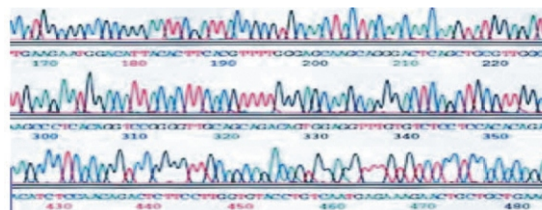
Preps
1 x 96
4 x 96
20 x 96



- Prepare Lysate
- Clear Lysate with an 96-well Lysate Clearance Plate
- Load the 96-well DNA Plate to bind plasmid
- Wash 96-well DNA Plate
- Elute DNA with Elution Buffer
- Ultra-Pure Plasmid DNA



Agarose gel analysis of plasmid DNA isolated from a 1 mL overnight bacteria using the AB96 Filter Column Binding Plasmid DNA Kit. Approximately 10% DNA was loaded per lane on to a 1.0% Agarose gel

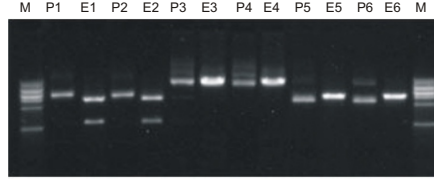


Sequencing analysis of pET-15 plasmid DNA isolated with AB96 Filter Column Binding Plasmid DNA Kit, and then analyzed on an ABI 3730 DNA sequencer

AB96 Magnetic Binding Plasmid DNA Kit

A fast, flexible and efficient way to isolate plasmid DNA in a 96-well format utilizing paramagnetic beads

The AB96 Magnetic Binding Plasmid DNA kit is a magnetic bead-based plasmid purification system that uses a single protocol to purify a variety of high and low copy plasmid, BACs, PACs and cosmids. This flexible system can be easily adopted and automated into most robotic platforms, including Aurora's automated robotic liquid handling VERSA™ Series, without sacrificing plasmid DNA quality. Purified DNA can be used directly for automated fluorescence sequencing and other downstream applications.



Restriction analysis of plasmids DNA purified with the Magnetic Binding 96-well Plasmid kit. Digestion was carried out with EcoRI.

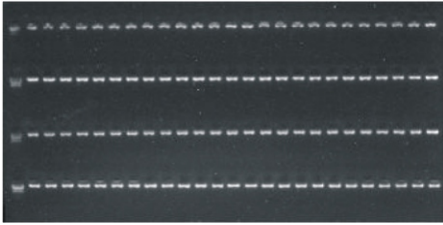
M: 100bp DNA Marker. P1,P2, P3, P4, P5, P6: isolated plasmid DNA. E1, E2, E3, E4, E5, E6: Plasmid DNA digested with EcoRI.

Catalogue No	Preps
MB-9854-1	1 x 96
MB-9854-4	4 x 96
MB-9854-24	24 x 96

AB96 Filter Column Binding BAC/PAC DNA Kit

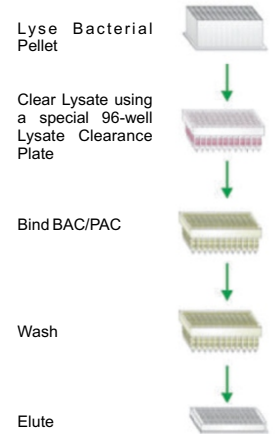
Rapidly purify plasmid DNA in a 96-well format using lysate clearance plates

The AB96 Filter Column Binding BAC/PAC DNA Kit provides a fast, reliable, high throughput method for the purification of BAC or PAC DNA. It is based on modified alkaline lysis of the bacteria cells, followed by the clearing of the lysate with an 96-well Lysate Clearance Plate. The BAC or PAC DNA is further purified and concentrated by an 96-well DNA Plate.



Agarose gel analysis of plasmid DNA isolated from a 1 mL sample of a bacterial culture grown overnight, and then purified using the AB96 Filter BAC/PAC DNA kit. 5% of purified DNA was loaded on a 1.0% agarose gel.

Catalogue No	Preps
FB-9055-1	1 x 96
FB-9055-4	4 x 96
FB-9055-20	20 x 96



RNA Isolation Systems

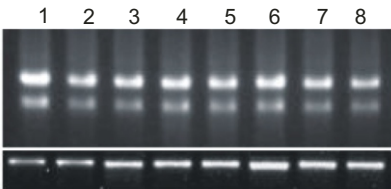
AB96 Filter Column Binding RNA Kit

Isolation of total RNA from cultured cells and tissues in 96-well format

The AB96 Filter Column Binding RNA kit is designed to carry out the isolation of total RNA from cells and soft tissues using a standardized 96-well plate format. Up to 1×10^6 cells and 10mg soft tissues can be processed in each well of the 96-well RNA plate. Purified RNA can then be used for a variety of downstream applications such as RT-PCR, Northern Blotting, Nuclease Protection Assay and in vitro translation.

- Purified RNA is suitable for most downstream applications
- No organic extractions or prescriptions
- Reproducible RNA yield from up to 1×10^6 cells and 10 mg soft tissues
- Optimized for high-throughput robotic processing

Catalogue No	Preps
FB-9076-1	1 x 96
FB-9076-4	4 x 96
FB-9076-12	12 x 96



RNA purified using the AB96 Filter Column Binding RNA kit was analyzed through denaturing formaldehyde agarose gel electrophoresis. RNA purification was carried out with the following samples:

1,2: Mouse liver
3,4: HeLa cells
5,6: Cos-7 cells
7,8: Mouse kidney

Source	Sample Amount	Yield (µg)	Source	Sample Amount	Yield (µg)
Animal Cells			Mouse Tissue		
COS-7	1×10^6	30	Liver	10 mg	35
HeLA	1×10^6	13	Kidney	10 mg	25
LMH	1×10^6	14	Lung	10 mg	15

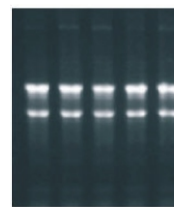
AB96 Magnetic Binding RNA Kit

Isolation of total RNA using magnetic beads for cultured cells

The AB96 Magnetic Binding RNA kit provides an efficient mechanism with which to carry out total RNA isolation. This kit allows for the rapid and reliable isolation of high-quality total cellular RNA from cultured cells. The kit combines the nucleic acid binding properties of our paramagnetic particles with an RNA Isolation system, thereby providing superior quality RNA. Unlike column based systems, the binding of nucleic acids to magnetic particles occurs in solution, which improves both binding kinetics and binding efficiency. Particles are completely re-suspended during the purification protocol by the subsequent wash steps, which enhances contact between the wash buffer and sample and removal of contaminants. This increases nucleic acid purity. The kit includes the Dnase I digestion step in order to remove genomic DNA contamination. The AB96 Magnetic Binding RNA Kit Dnase procedure can be fully automated using Aurora's VERSA™ series workstations.

Catalogue No
MB-4379-4
MB-4379-12

Preps
4 x 96
12 x 96



Denaturing Formaldehyde agarose gel electrophoresis of total RNA isolated with Magnetic Binding Total RNA kit from 5×10^6 cultured cells (Hela cell). 10% of eluted RNA from each sample was loaded on the gel.

AB96 Magnetic Binding FFPE RNA Kit

Isolation of RNA from the formalin-fixed, paraffin-embedded samples using magnetic particles

The AB96 Magnetic Binding FFPE RNA Kit is specially designed for isolation of total RNA from formalin-fixed, paraffin-embedded tissue sections. The sample is first processed in special buffer by heating to deactivated RNase/DNase and deparaffinization. Then the lysate is treated with Proteinase K to digest proteins. The cleared lysate is then mixed with magnetic binding particles to capture the RNA. After a few quick wash steps, purified RNA can be eluted with water or low salt buffer. It is a fast, short, and streamlined protocol that can be fully-automated. This kit ensures high quality RNA isolate through complete removal of contaminants and inhibitors.

Catalogue No
MB-8559-1
MB-8559-4
MB-8559-20

Preps
1 x 96
4 x 96
20 x 96

- Automation- The protocol can be fully automated
- Fast - Short and streamlined protocol delivery
- Quality - Complete removal of contaminants & inhibitors
- Safe - No organic extractions
- Speed - RNA isolation in less than 60 min

For more information on our PCR, PLASMID, GENOMIC DNA and RNA kits and VERSA™ ROBOTIC workstations, please visit our website at www.aurorabiomed.com.

NOTE: Instrument specifications may change without notice as an ongoing effort of product improvement.

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Aurora Biomed Inc.

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Phone: 1.800.883.2918; 604-215-8700 • Fax: 604-215-9700
email: info@aurorabiomed.com • website: www.aurorabiomed.com

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Aurora Instruments Ltd.

1001 East Pender Street Vancouver BC Canada V6A 1W2
Phone: 1.800.883.2918; 604-215-8700 • Fax: 604-215-9700
email: info@aurora-instr.com • website: www.aurora-instr.com