



illustra™ Nucleic Acid Purification

Purify. Amplify. Simplify.



Authorized Distributor
GE Healthcare

Get attached with illustra nucleic acid purification

The illustra product range includes fast, efficient solutions for nucleic acid purification and amplification. From our illustra DNA sample prep kits to our illustra RNAspin kits for RNA purification, and illustra HotStart RTG™ and Master Mix for PCR, illustra delivers high-quality results with excellent purity and reproducibility.

And illustra is easy to use, with simplified protocols that integrate color-coded kit components, pre-equilibrated columns, and minimal pipetting volume changes. Whatever your sample source, desired sample type, or downstream application, illustra makes nucleic acid purification and amplification a snap.

www.fishersci.com

Genomic DNA purification

When your sample source is cell cultures or tissue, illustra genomicPrep kits provide fast extraction and purification of high-quality genomic DNA. The illustra genomicPrep Mini Spin Kit allows you to go from sample to genomic DNA in just 90 min. The illustra genomicPrep Midi Flow Kit reduces protocol time, including homogenization, by more than 2 h, as compared with other commercially available kits.



illustra tissue and cells genomicPrep Mini Spin Kit

For the rapid extraction and purification of high-quality genomic DNA from a variety of animal tissues and mammalian cell cultures.

Technical specifications	
Tissue & cells Mini Spin (5 to 50 mg of Rat Liver; 20 mg optimum)	
Yield	12.0 to 25.0 μg
Purity	1.75 to 1.90
Total time of prep*	90 min
Hands-on time*	20 min
Size	20 to 35 kb
<i>*prep time does not include homogenization</i>	
Tissue & cells Mini Spin (3×10^5 - 5×10^6 cells)	
Yield	13 to 17 μg
Purity	1.75 to 1.90
Total time of prep*	70 min
Hands-on time*	20 min
Size	up to 75 kb
<i>*Cell type dependent, CHO and HK293 cells used in testing</i>	

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra tissue and cells genomicPrep Mini Spin Kit	50 reactions	45001502
illustra tissue and cells genomicPrep Mini Spin Kit	250 reactions	45001503

illustra tissue and cells genomicPrep Midi Flow Kit

For the high-yield extraction and purification of high-quality genomic DNA from tissues and cells—20% higher yield than other commercially available kits with an average size of > 20 kb.

Technical specifications	
Tissue & cells Midi (50 to 200 mg of tissue; 100 mg optimum)	
Yield	100 to 135 μg
Purity	1.7 to 1.9
Total time of prep*	3 h
Hands-on time*	1 h
Size	> 50 kb
<i>*prep time does not include homogenization</i>	
Tissue & cells Midi (1×10^7 to 2×10^7; 2×10^7 optimum)	
Yield	100 to 135 μg
Purity	1.7 to 1.9
Total time of prep*	3 h
Hands-on time*	1 h
Size	> 50 kb
<i>*including lysis, purification & desalting</i>	

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra tissue and cells genomicPrep Midi Flow Kit	25 reactions	45001501

Genomic DNA purification

illustra blood genomicPrep Mini Spin Kit

For the rapid and reproducible isolation of high-quality genomic DNA from whole blood, buffy coat, bone marrow, and nucleated red blood cells.



illustra blood genomicPrep Mini Spin Kit

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra blood genomicPrep Mini Spin Kit	50 reactions	45001496
illustra blood genomicPrep Mini Spin Kit	250 reactions	45001497

Technical specifications	
Yield	4 to 6 $\mu\text{g}/200 \mu\text{l}$ whole blood
Purity	> 1.6
Total time of prep*	less than 20 min
Hands-on time*	less than 5 min
Size	> 20 kbp
<i>*Including lysis, purification, and desalting</i>	

illustra blood genomicPrep Midi Flow Kit

For the rapid extraction and purification of high-quality genomic DNA from whole blood, buffy coat, and animal blood.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra blood genomicPrep Midi Flow Kit	25 reactions	45001495

Technical specifications	
Blood Midi (1 to 8 ml; 5 ml optimum)	
Yield	85 to 120 μg
Purity	1.7 to 1.9
Total time of prep*	2 h
Hands-on time*	45 min
Size	> 50 kb
<i>*including lysis, purification & desalting</i>	

illustra bacteria genomicPrep Mini Spin Kit

For the rapid extraction and purification of high-quality genomic DNA from Gram-positive and Gram-negative bacteria.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra bacteria genomicPrep Mini Spin Kit	50 reactions	45001493
illustra bacteria genomicPrep Mini Spin Kit	250 reactions	45001494

Technical specifications	
Bacteria Mini (1×10^9 to 4×10^9 cells)	
Yield	4 to 12 μg
Purity	1.7 to 1.9
Total time of prep* - (Gram-negative)	40 min
Hands-on time*	15 min
Total time of prep* - (Gram-positive)	55 min
Hands-on time*	15 min
Size	> 20 kb
<i>*includes testing on a wide range of strains</i>	

Genomic DNA purification

Nucleon™ BACC Genomic DNA Extraction Kits

Developed for rapid extraction of high-quality, high-molecular-weight genomic DNA from blood and cell cultures.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
Nucleon BACC1	1 kit	45000955
Nucleon BACC2	1 kit	45000956
Nucleon BACC3	1 kit	45000960

Technical specifications	
Nucleon BACC1:	50 preps of 1 ml of whole blood or cultured cells (1 to 3×10^6 cells/ml)
Nucleon BACC2:	50 preps of 10 ml of whole blood or cultured cells (3 to 10×10^6 cells/10 ml) or 100 preps of 1 ml (1 to 3×10^6 cells/ml)
Nucleon BACC3:	50 preps of 10 ml of whole blood

Nucleon PhytoPure™ Genomic DNA Extraction Kits

PhytoPure resin binds plant polysaccharides ensuring high yields of high-quality plant genomic DNA in only one hour.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
Nucleon PhytoPure	50 preps \times 0.1 g	45000958
Nucleon PhytoPure	50 preps \times 1.0 g	45000959

Nucleon HT Genomic DNA Extraction Kit

Facilitates the simple, phenol-free extraction of genomic DNA from paraffin-embedded sections and hard tissue requiring proteinase K digestion.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
Nucleon HT	1 kit, 50 preps	45000957

Plasmid DNA purification

The illustra plasmid Prep Mini Spin Kit provides rapid isolation of high- and low-copy number plasmid DNA for use in cloning, restriction enzyme digestion, PCR amplification, and DNA sequencing. For medium-scale cultures, the illustra plasmidPrep Midi Flow Kit is ideal for transfection, sequencing, and enzymatic amplification and modification applications.



illustra plasmidPrep Mini Spin Kit

For the rapid isolation of high and low copy number plasmid DNA.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra plasmidPrep Mini Spin	50 reactions	45001499
illustra plasmidPrep Mini Spin	250 reactions	45001500

Technical specifications	
plasmidPrep Mini (1.5 ml; A₆₀₀ = 2.5 to 3.0)	
Yield	6 to 9 μ g
Purity A ₂₆₀ /A ₂₈₀	> 1.8
Purity A ₂₆₀ /A ₂₃₀	> 1.7
Total time of prep	~ 9 min
Hands-on time	~ 3 min
Size	6.3 kb
plasmidPrep Mini (3.0 ml; A₆₀₀ = 2.5 to 3.0)	
Yield	9 to 15 μ g
Purity A ₂₆₀ /A ₂₈₀	> 1.8
Purity A ₂₆₀ /A ₂₃₀	> 1.7
Total time of prep	~ 9 min
Hands-on time	~ 3 min
Size	6.3 kb

Plasmid DNA purification

illustra plasmidPrep Midi Flow Kit

For the rapid extraction and purification of high-quality plasmid DNA from medium scale cultures for use in transfection, sequencing, and enzymatic amplification and modification.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra plasmidPrep Midi Flow	25 preps	45001498



illustra plasmidPrep Midi Flow Kit

Technical specifications

Yield, purity, and quality values obtained with high- and low-copy number plasmid DNA purified with the plasmidPrep Midi Flow Kit.

Plasmid copy number	High	Low
Plasmid size (kb)	6.3	36
Culture volume (ml)	50	150
Overall plasmid DNA yield (μg)	289	191
Endotoxin (EU/ μg pDNA)	0.05	0.13
A ₂₆₀ /A ₂₈₀ ratio	1.90	1.93
A ₂₆₀ /A ₂₃₀ ratio	2.34	2.29
Supercoiled monomer (%)	91.5	ND
Transfection (% COS7 cells)	70	ND
Sequencing (Phred20 read length)	818	ND

plasmidPrep Midi (25 to 150 ml culture)

Effective capacity	$\geq 250 \mu\text{g}$
Yield	100 to $\geq 250 \mu\text{g}$ high-copy number plasmid; 20 to $250 \mu\text{g}$ low- and very-low-copy number plasmid
% supercoiled pDNA	> 70% (strain dependent)
endotoxin	< 10 EU per μg plasmid DNA
Total time of prep	~ 215 min
Hands-on time Size	~ 40 min
Size	2 to > 50 kb

Sephacryl™ S-1000

For large-scale purification of plasmid DNA by gel filtration.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
Sephacryl S-1000 SF	750 ml	45000084

RNA purification

Simple, convenient, and suitable for all levels of expertise, the illustra RNAspin Mini Isolation Kit recovers high-quality total RNA from diverse sample types—even when your sample size is very small (e.g., ≥ 10 HeLa cells for RT-PCR). For applications requiring high yields, use the illustra RNAspin Midi Isolation Kit with scalable input and output. The illustra RNAspin 96 RNA Isolation Kit provides fast, efficient purification in a 96-well format, with flexible processing by vacuum or centrifugation. All illustra RNAspin kits can be used with cultured cells, tissue, bacteria, or yeast samples.



RNA purification

illustra RNAspin Mini Isolation Kit

High-quality output RNA from diverse sample types; suitable for use in sensitive downstream applications.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra RNAspin Mini Kit	20 preps	45001161
illustra RNAspin Mini Kit	50 preps	45001162
illustra RNAspin Mini Kit	250 preps	45001163

Technical specifications

	Animal Tissue	Cell Culture
Sample size	up to 30 mg tissue	up to 5×10^6 cells
Typical yield	up to 70 μg	up to 70 μg
Elution volume	40–120 μl	
Effective binding capacity	100 μg	
RNA integrity	sharp rRNA bands with no substantial degradative bands visible 28S:18S = ~ 2:1 RNA Integrity Number (RIN) values ≥ 7	
RNA purity	$A_{260}/A_{280} = 1.8\text{--}2.2$	
Total time of prep	< 30 min/6 preps	



illustra RNAspin Mini Isolation Kit

illustra RNAspin Midi Isolation Kit

For applications requiring high yields.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra RNAspin Midi Kit	20 preps	45001164

Technical specifications

	Animal Tissue	Cell Culture
Sample size	up to 200 mg tissue	up to 5×10^7 cells
Typical yield	up to 700 μg	up to 700 μg
Elution volume	500 μl	
Effective binding capacity	700 μg	
RNA integrity	sharp rRNA bands with no substantial degradative bands visible 28S:18S = ~ 2:1 RNA Integrity Number (RIN) values ≥ 7	
RNA purity	$A_{260}/A_{280} = 1.8\text{--}2.2$	
Total time of prep	80 min/4 preps	

illustra RNAspin 96 RNA Isolation Kit

For fast and efficient purification in a 96-well format.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra RNAspin 96 Kit	2 \times 96 preps	45001165
illustra RNAspin 96 Kit	4 \times 96 preps	45001757
illustra RNAspin 96 Kit	24 \times 96 preps	45001758

Technical specifications

	Animal Tissue		Cell Culture	
	Vacuum	Centrifuge	Vacuum	Centrifuge
Sample size	10–30 mg	30 mg tissue	2×10^6	1×10^7
Typical yield	up to 40 μg	up to 100 μg	up to 20 μg	up to 100
Elution volume	50–130 μl			
Effective binding capacity	100 μg			
RNA integrity	sharp rRNA bands with no substantial degradative bands visible 28S:18S = ~ 2:1 RNA Integrity Number (RIN) values ≥ 7			
RNA purity	$A_{260}/A_{280} = 1.8\text{--}2.2$			
Total time of prep	70 min/96 preps			

RNA purification

illustra RNAspin 96 Filter Plate

Allows for tissue samples to be processed with the RNAspin.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra RNAspin 96 Filter Plate	1	45001759

illustra Cesium Trifluoroacetate (CsTFA)

For separation and purification of nucleic acids, especially RNA, by isopycnic centrifugation.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra CsTFA (Solution)	100 ml	45000147

Oligo(dt)-Cellulose

For simple, affinity-purification of polyadenylated mRNA.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
Oligo(dt)-Cellulose T 7	1 g	45001403
Oligo(dt)-Cellulose T 7	5 g	45001404

DNA Clean-up

GE Healthcare provides a wide range of nucleic acid purification products for DNA clean-up. Whether your application needs require purification of PCR products and restriction fragments; removal of dye terminators, unincorporated labels and nucleotides; or desalting, the illustra DNA clean-up products have been optimized for high performance in your specific application. The products have also been designed for convenience and speed with prepacked columns as well as quick reference protocol cards for ease of use. Many of the kits are tailored for a specific application to ensure purification of the highest quality DNA.

illustra GFX™ PCR DNA and Gel Band Purification Kit

For the isolation and concentration of DNA fragments (50 bp to 10 kb) from PCR mixtures, DNA-containing agarose gel bands, enzyme-based DNA modifications, and restriction digestions.

illustra QuickPrep™ Micro mRNA Purification Kit/ illustra QuickPrep mRNA Purification Kit

For rapid purification of mRNA directly from a wide variety of eukaryotic cells or tissue samples, even from a single cell.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra QuickPrep Micro mRNA Purification Kit	1 kit	45001411
illustra QuickPrep mRNA Purification Kit (4 purifications)	1 kit	45001410

illustra mRNA Purification Kit

For rapid affinity purification of mRNA from eukaryotic total RNA using prepacked oligo(dT)-cellulose spun columns.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra mRNA Purification Kit 4 purifications (8 columns)	1 kit	45001413



Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra GFX PCR DNA and Gel Band Purification kit	100 purifications	45001489
illustra GFX PCR DNA and Gel Band Purification kit	250 purifications	45001490

DNA Clean-up

illustra GFX 96 PCR Purification Kit

For the purification of up to 96 PCR products (0.1 to 10 kb) simultaneously in as little as 15 min.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra GFX 96 PCR Purification kit	10 × 96 well plates	45001488

Technical specifications

Protocol	Elution volume (μl)	Yield (%)
Centrifugation	10	55
	55	95
	100	90
Vacuum	50	59
	100	78



illustra GFX 96 PCR Purification Kit

ExoSAP-IT™

For rapid and efficient purification of PCR products.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
ExoSAP-IT	100 reactions	45001204
ExoSAP-IT	500 reactions	45001205
ExoSAP-IT	2000 reactions	45001206

illustra MicroSpin™ S-200 HR Columns

For rapid purification of labeled single-stranded or double-stranded DNA fragments ≥ 50 bases in length in a volume of 51 to 100 μl using spin-column chromatography.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra MicroSpin S-200 HR Columns	50	45001394



illustra MicroSpin S-200 HR Columns

illustra MicroSpin S-300 HR Columns

For rapid purification of PCR products (≥ 100 bp) from unincorporated primers (≤ 20-mers) and nucleotides using spin-column chromatography.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra MicroSpin S-300 HR Columns	50	45001395



illustra MicroSpin S-300 HR Columns

illustra MicroSpin S-400 HR Columns

For rapid purification of PCR products (≥ 200 bp) from unincorporated primers (≤ 32-mers) and nucleotides using spin-column chromatography.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra MicroSpin S-400 HR Columns	50	45001396

DNA Clean-up

illustra MicroSpin G-25 Columns

For rapid buffer exchange/desalting of PCR products and other DNAs in a volume of 10–100 μl using spin-column chromatography.



illustra MicroSpin G-25 Columns

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra MicroSpin G-25 Columns	50	45001397

Technical specifications

Volume*	100 μl	150 μl
% Average yield [†]	83%	89%
Standard deviation	5.1	3.6
Average purity [‡]	98%	97%
Standard deviation	2.9	4.8

* A 17-mer was synthesized on a 0.2 μm scale and deprotected at 60°C for 30 min in concentrated ammonium hydroxide. 100 μl or 150 μl of deprotected oligo was applied to pre-spun MicroSpin G-25 Columns and centrifuged at 735 \times g for 2 min in a microcentrifuge. As a standard, 0.25 ml of deprotected oligo was diluted to 1 ml and purified on a NAP-10 column according to instructions provided with the columns.

[†] Yield is based on A260 reading following purification. Yield from NAP-10 Column is a standard to which we have assigned 100% yield.

[‡] Purity is based on amount of ammonia present following purification as determined using Nessler reagent. Purity from NAP-10 Column is a standard to which we have assigned 100% purity.

illustra MicroSpin G-50 Columns

For rapid purification of labeled DNA (\geq 20 bases) from unincorporated labeled nucleotides in a volume of 25 to 50 μl using spin-column chromatography.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra MicroSpin G-50 Columns	50	45001398
illustra MicroSpin G-50 Columns	250	45001399

illustra NICK™ Columns

For rapid purification of labeled DNA (\geq 20 bases in length) from unincorporated radiolabeled nucleotides using gravity-flow chromatography.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra NICK Columns	20	45000155
illustra NICK Columns	50	45000156

illustra AutoSeq™ G-50

For rapid removal of unincorporated fluorescent dye-terminators from cycle sequencing reactions prior to automated sequencing.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra AutoSeq G-50	50 columns	45001400
illustra AutoSeq G-50	250 columns	45001401
illustra AutoSeq G-50	1000 columns	45001402



illustra AutoSeq G-50

illustra ProbeQuant™ G-50 Micro Columns

For rapid purification of labeled DNA (\geq 20 bases) from unincorporated labeled nucleotides in a volume of 25 to 50 μl using spin-column chromatography.

Ordering information

Product	Quantity	Fisher Scientific Catalog No.
illustra ProbeQuant G-50 Micro Columns	50	45001487

illustra ProbeQuant G-50 Micro Columns



DNA Clean-up

illustra NAP™ Columns

For rapid and efficient purification of DNA and oligonucleotides (≥ 10 -mers) in less than 15 min by gravity flow.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra NAP-5 Columns	20	45000151
illustra NAP-5 Columns	50	45000152
illustra NAP-10 Columns	20	45000153
illustra NAP-10 Columns	50	45000154
illustra NAP-25 Columns	20	45000149
illustra NAP-25 Columns	50	45000150

illustra Sephadex™ G-25 DNA Grade

For purification of DNA (≥ 10 bases in length) from small molecules by gel filtration.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra Sephadex G-25 DNA Grade SF	100 g	45000109



illustra Sephadex G-25 DNA Grade

illustra Sephadex G-50 and G-100 DNA Grade

For purification of DNA from small molecules by gel filtration.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra Sephadex G-50 DNA Grade F	25 g	45000110
illustra Sephadex G-50 DNA Grade F	100 g	45000111
illustra Sephadex G-100 DNA Grade SF	100 g	45000021

Technical specifications			
	G-25	G-50	G-100
DNA exclusion limit (base pairs)	10	20	25
Oligonucleotide exclusion limit [poly (A)]	10	20	27
ml of hydrated gel per gram of dry medium	4-6	9-11	15-20

Technical specifications

Choosing a NAP column and buffer volumes

Column Type	Sample Volume (ml)	Equilibration Buffer (ml)	Elution Buffer (ml)
NAP-5	0.1	0.4	0.5
	0.25	0.25	0.7
	Max. vol.	0.5	1.0
NAP-10	0.75	0.25	1.2
	Max. vol.	1.0	1.5
NAP-25	1.5	1.0	2.5
	2.0	0.5	3.0
	Max. vol.	2.5	3.5

illustra CyScribe™ GFX Purification Kit

Allows rapid purification of CyDye™ labeled cDNA probes.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
illustra CyScribe GFX Purification Kit	25 purifications	45001422
illustra CyScribe GFX Purification Kit	50 purifications	45001423



illustra CyScribe GFX Purification Kit

MicroSpin Columns

Empty MicroSpin Columns for use with Sephadex DNA Grade media, or any media.

Ordering information		
Product	Quantity	Fisher Scientific Catalog No.
MicroSpin Columns	100	45001350



illustra GFX PCR DNA and Gel Band Purification Kit



illustra plasmidPrep Mini Spin Kit



illustra RNAspin 96 RNA Isolation Kit



For customer service, call 1-800-766-7000.
To fax an order, use 1-800-926-1166.
To order online: www.fishersci.com