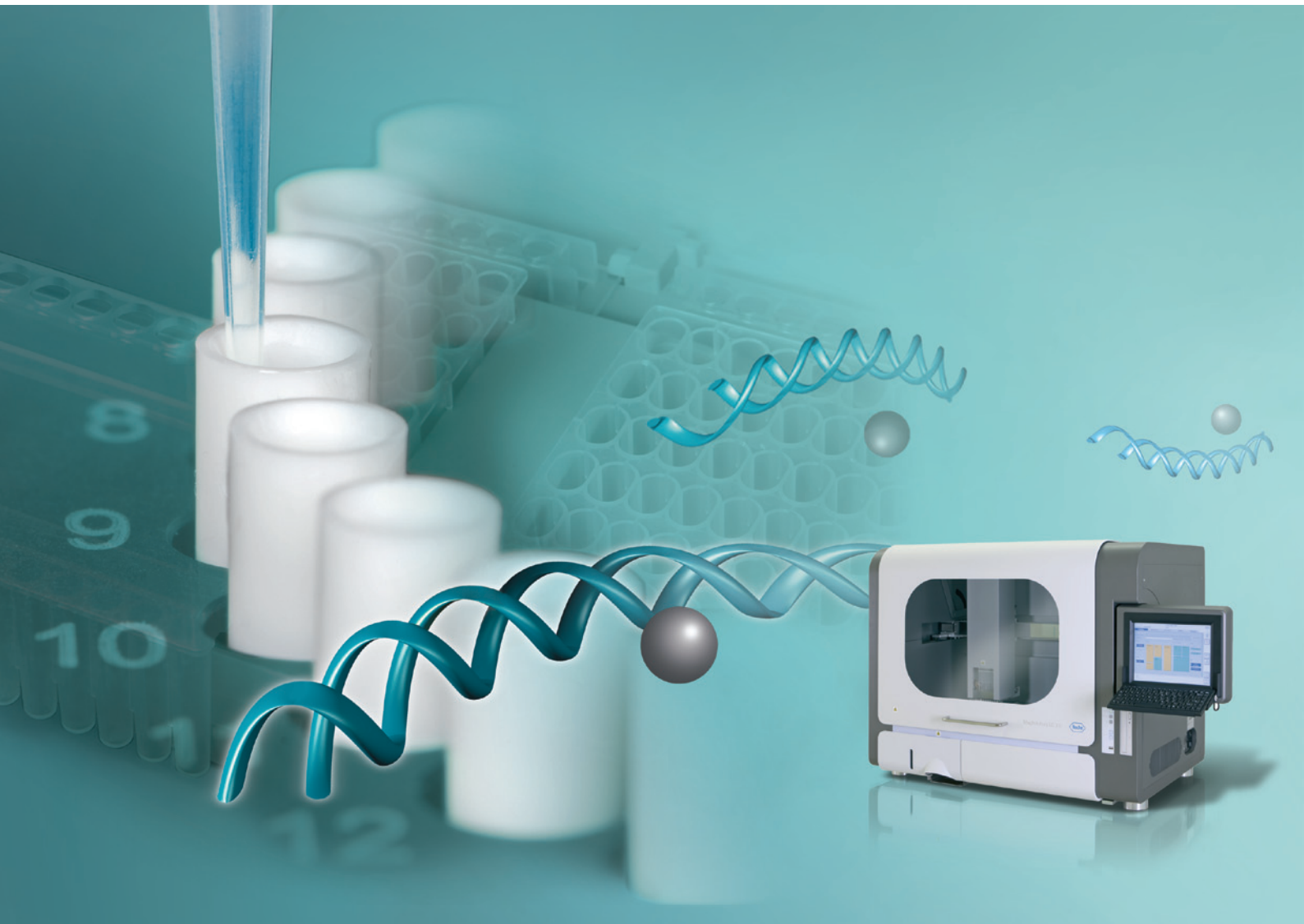
MagNA Pure

Versatile Nucleic Acid Purification

Accelerate your Lab Workflow



Roche Applied Science –
Biotechnology pioneers

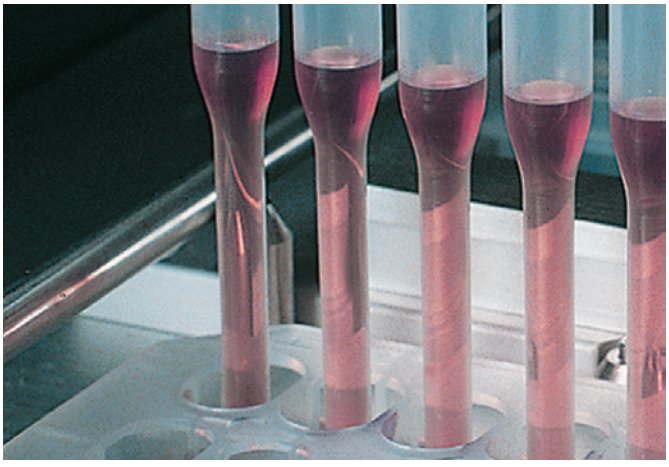
Located in Penzberg, Germany, Roche Applied Science offers more than 2,000 products for life science research and pharma/biotech industries. A business area of Roche Diagnostics (a division of the Roche Group), RAS combines diversified competencies, state-of-the-art technologies, and a highly focused partnering strategy to continue its tradition of innovation, service, and quality dating from 1972.

RAS is comprised of two branches:

The Research Business branch supplies reagents and systems for life science research in 150 countries. The extensive product portfolio features reagents for genome sequencing, microarray analysis, nucleic acid purification, real-time PCR, and cell analysis. The Research Business branch also has a decade of experience in automated nucleic acid purification and downstream PCR; its MagNA Pure and LightCycler® instruments have become reliable research lab standbys.

The Industrial Business branch is an OEM supplier for the diagnostics, life science research, and pharma/biotech industries, providing customers with high quality biochemicals sourced from the various business segments of Roche Diagnostics. Extensive quality management means ISO13485:2003 certification, and the ability to operate in accordance with GMP and in compliance with FDA and USDA regulations.

www.roche-applied-science.com



The MagNA Pure LC 2.0 System –

Versatility and walk-away precision in automated nucleic acid purification

The MagNA Pure LC 2.0 System from Roche continues our tradition of innovating automated nucleic acid isolation to provide true walk-away automation, improve productivity, and accelerate your laboratory PCR workflow. Improved software, network connectivity, and a new touchscreen interface provide easy-to-use data management capabilities – from sample input to analysis to result.

Utilize network connectivity features for easy data management

Communicate with your laboratory network or LIMS to download sample input data directly into purification setup and upload subsequent run information.

Isolate high-purity nucleic acids

Use quality-controlled reagent kits combined with included optimized purification protocols to obtain highly pure DNA and RNA that provide optimal results in various downstream applications.

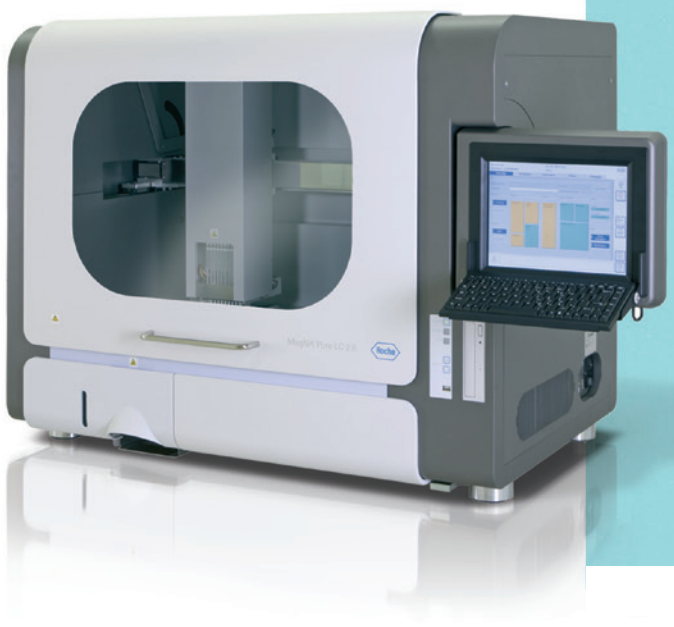
Rely on consistent purification

Benefit from reproducible results driven by proven magnetic bead technology, extensive protection against contamination, precision pipetting, intelligent error handling.

Take advantage of flexible protocols for your application needs

Enjoy versatile kits with preprogrammed protocols that are validated for a broad range of sample materials, but also offer flexibility for customer-derived applications.
Learn more about the MagNA Pure LC 2.0 System and its broad range of applications at **www.magnapure.com**

Set yourself free from laboratory routine



MagNA Pure LC 2.0 System

Specifications

Applications

All kits and protocols are backwards compatible with the MagNA Pure LC 1.0 Instrument.

- 10 versatile kits for purification of genomic or bacterial DNA, total RNA, or viral DNA/RNA
- Supports a broad range of sample materials: mammalian whole blood, blood cells, plasma, fresh or FFPE tissue, body fluids, cultured cells, bacteria, or plant tissue
- Batch size: 8–32 samples
- Sample/Elution volume: 20–1000 µl / 50–200 µl
- Run Times for Purification: 32 samples in 52–180 minutes, less according to batch size

Regulatory Compliance

The MagNA Pure LC 2.0 Instrument is listed as a General Purpose Laboratory Equipment at the Federal Food and Drug Administration FDA (USA).

System Specifications

Hardware
■ Instrument
■ Dimensions: W 108 cm x D 77 cm x H 91 cm (closed), H 114 cm (open)
■ 8-channel nozzle head
■ Integrated PC with touchscreen monitor and additional keyboard
■ Data exchange via network/LIMS connection, CD drive, or USB port
■ 1 Heating Block, 2 Cooling Blocks
■ UV lamp, HEPA filter, sensor for tip loss and clot detection
■ PCR vessels: LightCycler® Capillaries, LightCycler® 480 Multiwell Plate 96, COBAS® AmpliCor® A-ring as well as generic vessels like 96-well plates.

Software
■ Purification software with ready-to-use purification protocols
■ Additional software for PCR setup protocols

Ordering Information

Product	Cat. No.
MagNA Pure LC 2.0 Instrument	05 197 686 001

The MagNA Pure LC 2.0 System is a complete package that includes instrument hardware, software, a full set of purification protocols, additional PCR setup software, disposables, and reagent kits.

MagNA Pure LC 2.0 System

Instrument and Consumables

The MagNA Pure LC 2.0 System is operated by a convenient touch-screen user interface and an integrated PC. It combines on the same platform the purification of nucleic acids from biological samples, as well as the set-up of PCR reactions. This makes the MagNA Pure LC 2.0 System a true "walk-away" system.

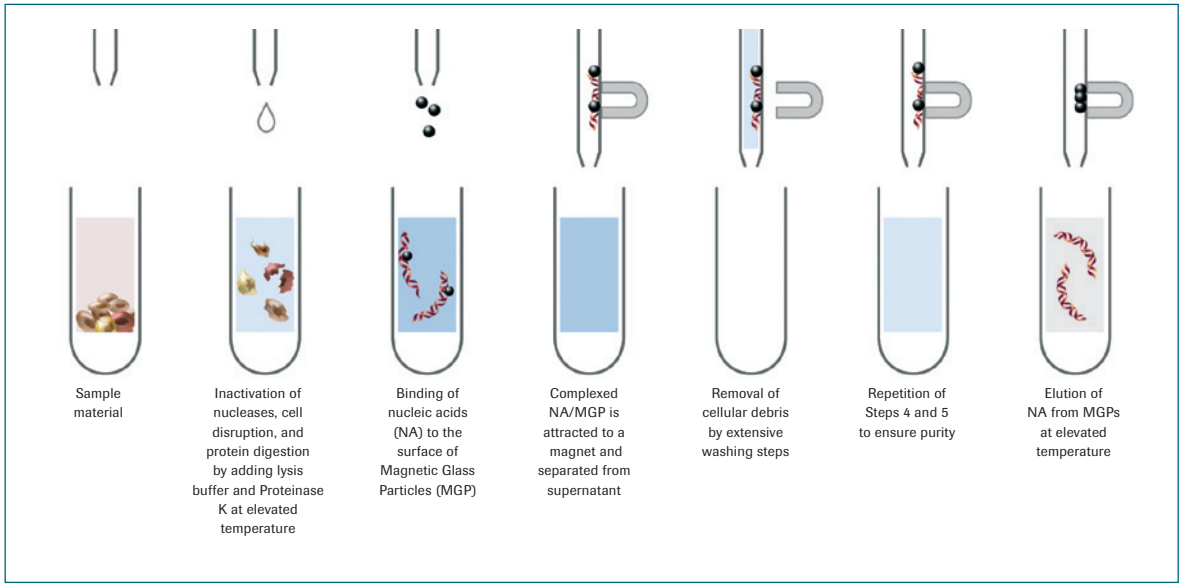
The reliability of results is maximized by the instrument's intelligent design. Run surveillance includes tip and clot detection. The piston-driven 8-channel nozzle head and positive-displacement liquid handling reduce the risk of cross-contamination to an absolute minimum. UV decontamination and HEPA-filter system guarantee maximum safety for both samples and environment.

The MagNA Pure LC 2.0 Software supports network/LIMS connectivity, the use of a bar-code scanner and a bar-code printer, as well as a regular printer.

Reagent Kits and Disposables

Ready to use reagent kits are available for sample volumes of up to 1 ml. They rely on proven Magnetic Particle separation technology. Up to 32 nucleic acid isolations per run can be performed in approximately one to three hours. Cellular, viral, bacterial, or fungal DNA, or RNA from a broad variety of sample materials such as blood, blood cells, cultured cells, plasma, serum, sputum, stool, bronchoalveolar lavage (BAL), plant tissues, or food products can be processed. Obtain consistent yield and recover your purified nucleic acids with higher efficiency, regardless of the volume of starting material.

The disposable plastics meet stringent requirements for the safety of your sample. According to the strict current quality control procedures, they are free of nucleases and amplification inhibitors (for PCR/RT-PCR), and are guaranteed to be inert to most chemicals used in life-science laboratories.



▲ **Figure 1: Overview of nucleic acid isolation and purification with the MagNA Pure LC System.**

MagNA Pure LC 2.0 System

Software

Fully automated, walk-away nucleic acid isolation with the MagNA Pure LC 2.0 System is supported by user-friendly software.

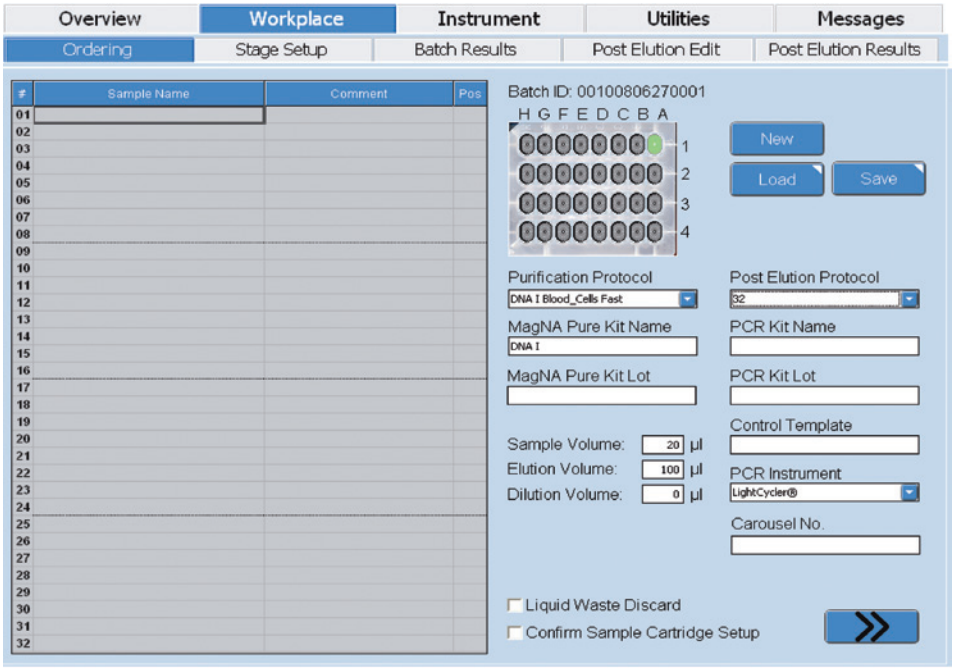


Figure 2: MagNA Pure LC 2.0 Purification Software. Enter your sample identities via upload from a network/LIMS, by a bar-code reader, or manual entry.

Purification Software: Ease of Use

Experience user-friendly software guidance for experiment setup

- Enter your sample identities via upload from a network/LIMS, by a bar-code reader, or manual entry.
- Choose the appropriate isolation protocol for your sample and nucleic acid type.
- Change variable parameters such as sample or elution volumes.
- The software automatically calculates the required reagent volumes and plastic disposables. Each loading step is checked and confirmed, assuring completeness of the setup procedure.

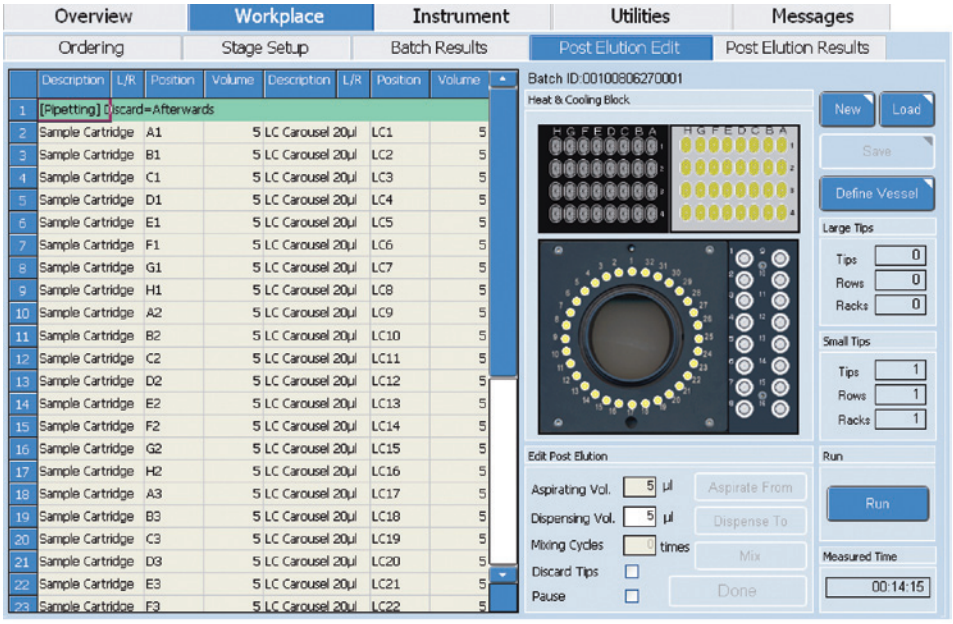


Figure 3: MagNA Pure LC 2.0 Postelution Software. Program your post-elution file with your choice of PCR vessels

Post-elution Software: Flexibility and Options

Expression analysis using PCR is one of the most widely used applications in nucleic acid research. With the post-elution pipetting option of the MagNA Pure LC 2.0 System, you have a unique and valuable tool for automated PCR setup.

- Use your choice of formats, whether you need LightCycler® 480 or generic 96-well plates, LightCycler® capillaries, PCR strips, COBAS® A Ring or tubes.
- Program your post-elution file with the included touch-screen and keyboard, or install the software on your PC and program it at your leisure.

Network Connectivity

Data can be uploaded to a network or LIMS for further documentation, transferred to a LightCycler® 480 Instrument, or transferred via USB to a carousel-based LightCycler® Instrument. Obtain a complete summary of the process results.

MagNA Pure LC Reagent Kits –

For nucleic acid isolation in the broadest range of applications

Rely on a proven technology which has demonstrated successful nucleic acid isolation in all demanding molecular biology applications. The MagNA Pure LC Kits are designed for maximum flexibility of sample amount and elution volume, and are optimized for highest nucleic acid yield and purity.

- Expect maximum sensitivity and reproducibility for quantitative PCR.

	Specifications			
Purification Protocol Name	Target Nucleic Acid	Processing Time in minutes (8/16/24/32 samples)	Typical Sample Volume	Typical Elution Volume
DNA – High Performance	Genomic DNA	27/51/75/98	20–200 µl (< 1 x 10^6 cells)	100 µl
DNA – Fast	Genomic DNA	16/28/41/54	20–200 µl (1 x 10^6 cells)	100 µl
DNA LV – Blood (200 µl)	Genomic DNA	30/60/83/110	20–200 µl	100 µl
DNA LV – Cells	Genomic DNA	34/68/94/123	< 5 x 10^6 cells	50 µl
DNA LV – Blood (300–500 µl)	Genomic DNA	40/77/115/152	300–500 µl	200 µl
DNA LV – Blood (1000 µl)	Genomic DNA	47/94/133/177	1000 µl	200 µl
DNA II Tissue	Genomic DNA	34/63/93/118	< 10 mg	200 µl
DNA II Tissue External Proteinase K	Genomic DNA	19/35/51/67	5–10 µm	200 µl
DNA III	Bacterial	27/49/72/95	50–100 µl	100 µl
RNA – HP Blood	total RNA	35/47/79/91	20–200 µl (< 1–2 x 10^6 cells)	50–100 µl
RNA – HP Cells	total RNA	55/73/125/144	1 x 10^3 – 1 x 10^6	50–100 µl
RNA III – Fresh Frozen	total RNA	34/45/76/84	< 10 mg	50 µl
RNA III – Paraffin	total RNA	50/63/110/122	5–20 µm	50 µl
tNA I – Serum, Plasma, Blood	viral DNA and RNA	40/47/83/90	50–200 µl	50–100 µl
tNA HP (200 µl)	viral DNA and RNA	42/49/89/96	100/200 µl	50/100 µl
tNA HS (200 µl)	viral DNA and RNA	47/92/137/180	100/200 µl	50/100 µl
tNA LV	viral DNA and RNA	30/60/90/120	1000 µl	50–100 µl

- Extract high-quality DNA from difficult sample materials for microbiological analysis.
- Obtain RNA of highest quality for gene-expression studies in cellular samples.
- Maximize the output of gene-expression studies in tissue samples.
- Isolate viral RNA or DNA for reliable and sensitive detection in body fluids (*e.g.*, to determine viral loads).

Sample Types								
Whole Blood	Blood Cells	Cultured Cells	Fresh Frozen Tissue	FFPE * Tissue	Serum, Plasma	Body Fluids, Bacterial Cultures	Kit Short Name	Cat. No.
■	■	■					DNA Kit I	03 003 990 001
■	■	■					DNA Kit I	03 003 990 001
■							DNA Kit I – Large Volume	03 310 515 001
	■	■					DNA Kit I – Large Volume	03 310 515 001
■							DNA Kit I – Large Volume	03 310 515 001
■							DNA Kit I – Large Volume	03 310 515 001
			■				DNA Kit II	03 186 229 001
				■			DNA Kit II	03 186 229 001
						■	DNA Kit III	03 264 785 001
■							RNA Kit High Performance	03 542 394 001
	■	■					RNA Kit High Performance	03 542 394 001
			■				RNA Kit III	03 330 591 001
				■			RNA Kit III	03 330 591 001
■					■		Total Nucleic Acid Kit I	03 038 505 001
■					■		Total Nucleic Acid Kit – High Performance	05 323 738 001
■					■		Total Nucleic Acid Kit – High Performance	05 323 738 001
					■		Total Nucleic Acid Kit – Large Volume	03 264 793 001

* FFPE = Formalin Fixed Paraffin Embedded

MagNA Pure LC Kits for DNA Isolation

Product	Mammalian Sample Type	Typical Sample Volume	Elution Volume	Typical DNA Yield
MagNA Pure LC DNA Isolation Kit I 03 003 990 001	Whole blood, white blood cells, PBMCs, and cultured cells	• 20 – 200 µl whole blood • 200 µl cells (usually containing 10^3 – 10^6 cells)	100 µl	• For whole blood (20 – 200 µl sample volume): approximately 1 – 7 µg* • For cultured cells (200 µl K-562, containing 10^6 cells): approximately 11 µg* • For cultured cells (200 µl HeLa containing 10^6 cells): approximately 11 µg*
MagNA Pure LC DNA Isolation Kit – Large Volume 03 310 515 001	Whole blood, white blood cells, PBMCs and cultured cells; suitable for large volume samples	• 20 – 1000 µl whole blood • 100 µl cell suspension (usually containing up to 5 x 10^6 cells)	50 – 200 µl (depending on the protocol)	• For whole blood (20 – 1000 µl sample volume): approximately 1 – 30 µg* • For cultured cells (100 µl, containing 1 – 5 x 10^6 cells): approximately 11 – 60 µg*
MagNA Pure LC DNA Isolation Kit II (Tissue) 03 186 229 001	Fresh/frozen, paraffin-embedded, or formalin-fixed mammalian tissue	90 µl (usually containing 1 – 10 mg homogenized tissue)	200 µl	See Table 1.
MagNA Pure LC DNA Isolation Kit III (Bacteria, Fungi) 03 264 785 001	BAL (bronchoalveolar lavage), sputum, urine, stool, CSF (cerebrospinal fluid), swabs, tracheal secretions, blood cultures, bacteria, or fungal cultures	50 – 100 µl liquefied sample	100 µl	• From 10^2 – 10^6 colony-forming units of gram-positive bacteria (*Streptococcus* from urine) or gram-negative bacteria (*B. pertussis* from BAL or *H. pylori* from stool): 39 – 21 crossing points were isolated then quantified using strain-specific sequences on the LightCycler® Instrument.

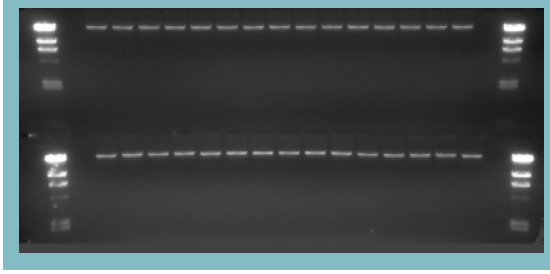
* determined by OD measurement

MagNA Pure LC DNA Isolation Kit I

(Cat. No. 03 003 990 001)

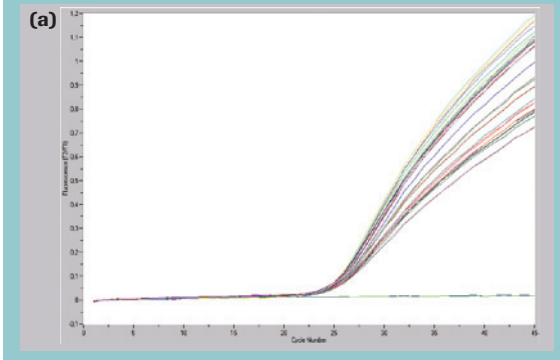
Isolate high-quality genomic DNA for sensitive PCR analysis with the LightCycler® System or other standard blockcycler or real-time PCR formats. This kit is highly suitable for all standard DNA application, for example, restriction digests, Southern blotting, *etc.*

Reproducibility in Agarose Gel Analysis



▲ **Figure 4: Genomic DNA was isolated from mammalian whole blood samples with the MagNA Pure LC DNA Isolation Kit I in 30 replicates.**

Reproducibility in LightCycler® Analysis



(b) Sample		CP (mean)	%CV	n
Mammalian Whole Blood	20 µl	25.4	0.8	30
	200 µl	23.0	2.8	30
Cultured Cells	10^5 Hela cells	25.6	1.3	30
	10^5 K-562 cells	25.8	0.8	30

▲ **Figure 5: Replicate analysis of isolated DNA using LightCycler® PCR.**
(a) Thirty genomic DNA eluates isolated with the MagNA Pure LC DNA Isolation Kit I were amplified in a LightCycler® Instrument run, and the crossing point (Cp) was determined.
(b) Whole-blood samples from different volumes as well as different types of cultured cells yielded highly reproducible values, demonstrating sample-independent isolation consistency generated with the MagNA Pure LC 2.0 System.

MagNA Pure LC DNA Isolation Kit II (Tissue)

(Cat. No. 03 186 229 001)

Versatility

Tissue Type (10 mg sample)	Typical yield (µg DNA)
Liver	18
Kidney	18
Tail	10
Spleen	40
Brain	22
Ear	16
Muscle	4
Lung	25

▶ **Table 1: DNA yield from different mammalian tissue types using the MagNA Pure LC DNA Isolation Kit II.**

MagNA Pure LC DNA Isolation Kit III (Bacteria, Fungi)

(Cat. No. 03 264 785 001)

Versatility

Microbiological species that were processed using the **MagNA Pure LC DNA Isolation Kit III (Bacteria, Fungi)**.

Gram-Positive Species

Actinomyces israelii
Bacillus cereus
Corynebacterium diphtheriae
Corynebacterium pseudodiphtheriticum
Corynebacterium xerosis
Enterococcus faecalis
Listeria monocytogenes
Propionibacterium acnes
Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus agelactiae (Group B Strep.)
Streptococcus pneumoniae

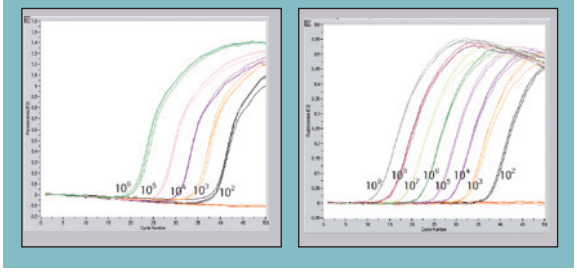
Gram-Negative

Bacteroides fragilis
Citrobacter freundii
Enterobacter cloacae
Escherichia coli
Haemophilus influenzae
Helicobacter pylori
Klebsiella pneumoniae
Legionella pneumophila
Moraxella catarrhalis
Neisseria gonorrhoeae
Proteus vulgaris
Pseudomonas aeruginosa
Salmonella enteritidis
Serratia marcescens
Shigella sonnei
Yersinia enterocolitica

Fungi

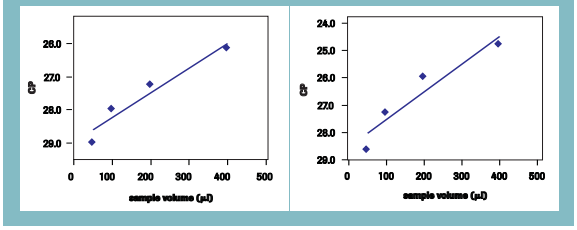
Aspergillus fumigatus
Candida albicans

Sensitivity



▲ **Figure 6: Typical microbiological research sample materials were spiked with gram-negative (*e.g., Bordetella parapertussis, Helicobacter pylori*), or gram-positive (*e.g., Streptococcus*) bacteria.** Following processing with the MagNA Pure LC DNA Isolation Kit III (Bacteria, Fungi), the isolated DNA was analyzed for the respective organism, using a specific LightCycler® PCR. It was possible to detect down to approximately 10^2 CFU (colony forming units) per isolate, showing the excellent sensitivity even with difficult sample material.

Scalability



▲ **Figure 7: Different amounts of research sample materials (50 µl, 100 µl, 200 µl, and 400 µl) spiked with *Streptococcus* or *Bordetella parapertussis* (10^6 CFU/100 µl) were processed using the MagNA Pure LC DNA Isolation Kit III (Bacteria, Fungi).** After nucleic acid isolation, the bacteria were detected by quantitative LightCycler® PCR, illustrating the scalability of the results in different sample volumes.
CP = crossing point determined by LightCycler® PCR.

MagNA Pure LC Kits for Total Nucleic Acid Isolation

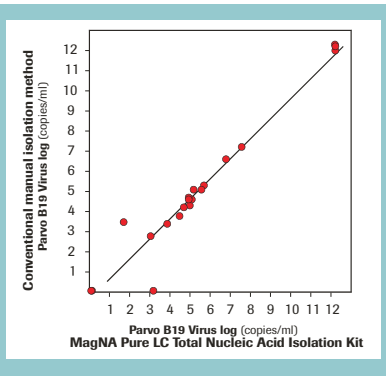
Product	Mammalian Sample Type	Typical Sample Volume	Typical Elution Volume
MagNA Pure LC Total Nucleic Acid Isolation Kit 03 038 505 001	Whole blood, plasma, serum	50–100 µl	100 µl
MagNA Pure LC Total Nucleic Acid Isolation Kit – High Performance 05 323 738 001	Whole blood, serum/plasma	up to 200 µl	50 or 100 µl
MagNA Pure LC Total Nucleic Acid Isolation Kit – Large Volume 03 264 793 001	Plasma, serum	1000 µl	50–100 µl

MagNA Pure LC Total Nucleic Acid Isolation Kit

(Cat. No. 03 038 505 001)

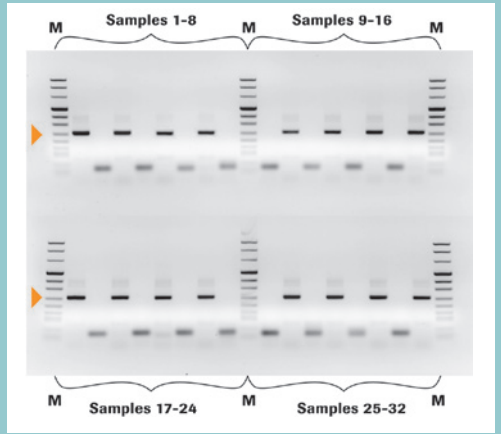
The standard kit that is ideally suited for most standard applications of viral nucleic acid purification.

Performance Comparison



▲ **Figure 8: Total nucleic acid from serum samples was isolated using the MagNA Pure LC Total Nucleic Acid Isolation Kit, and, in parallel, using a conventional spin-column method.** The isolated nucleic acid was analyzed using quantitative PCR specific for Parvovirus B19 DNA*, showing comparable yields for both methods.

Prevention of Cross-Contamination

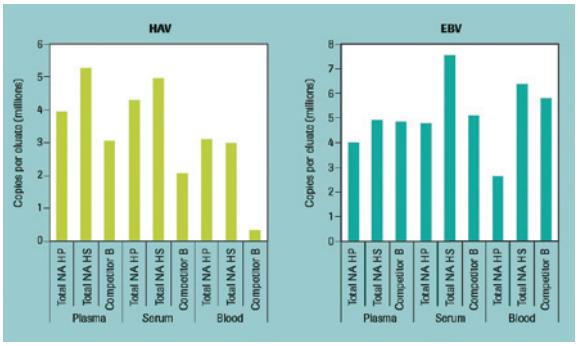


▲ **Figure 9: Thirty-two blood samples were processed on the MagNA Pure LC Instrument in an alternating positive and negative pattern.** Half of the samples in the sample cartridge were spiked with Parvovirus B19* (conditions most risky for cross-contamination). All isolates were analyzed for the presence of Parvovirus B19 DNA* with the LightCycler® Instrument.

MagNA Pure LC Total Nucleic Acid Isolation Kit – High Performance

(Cat. No. 05 323 738 001)

For applications with limited sample material that require higher sensitivity. This improved version of the MagNA Pure LC Total Nucleic Acid Kit provides high-purity total nucleic acid for even higher sensitivity in downstream applications. The optimized kit delivers high-performance purification with results that meet or exceed those of other commercially available kits.



▲ **Figure10: Recovery of viral nucleic acids from different sample types.** The result for HAV and EBV are shown as examples. The isolation efficiency of the new "Total NA HP" and "Total NA HS" protocols was compared to that of the best competitor method. The columns visualize differences in the isolated copy numbers as calculated by quantitative (RT-) PCR. Every column represents the mean value of four-fold replicates. In all cases the "Total NA HS" protocol is either in the same range or significantly better than the competitor method.

Isolation Protocol	HAV (66 copies)	Inf. A (50 copies)	EBV (100 copies)	CMV (100 copies)
TNA HS 200	100%	100%	79,2%	91,7%
TNA HP 200	100%	100%	33,3%	83,3%
Competitor B	91,7%	91,7%	62,5%	91,7%

▲ **Table 2: Hit rates for the TNA HS and TNA HP Protocols and for competitor system B with the best performance in our hands.** For the hit rate tests, 24 samples were spiked with a virus amount around the detection limit and the percentage of positive samples is calculated. The approximate spiked virus copies per sample are listed in brackets, note that the determination of viral titers is usually afflicted with a certain imprecision.

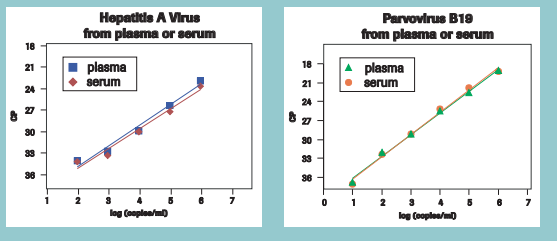
MagNA Pure LC Total Nucleic Acid Isolation Kit – Large Volume

(Cat. No. 03 264 793 001)

This kit is especially for those applications, where higher sensitivity is required and sample material is not limited.

▶ **Figure 11: Total nucleic acids were isolated from plasma or serum research samples, containing 10^1 to 10^6 copies/ml of viral genome (Hepatitis A Virus, Parvovirus B19*) using the MagNA Pure LC Total Nucleic Acid Isolation Kit – Large Volume.** Crossing points were determined using real-time LightCycler® PCR or RT-PCR. The clear correlation between viral load (concentration of virus genome) and crossing points indicates the scalability of MagNA Pure LC Isolation over a broad dynamic range. CP = Crossing point determined by LightCycler® PCR.

Scalability



* LightCycler® Parvovirus B19 Quantification Kit and LightCycler® Hepatitis A Virus Quantification Kit are available from Roche Molecular Diagnostics for use in life science research and quality control purposes in the plasma processing industry.

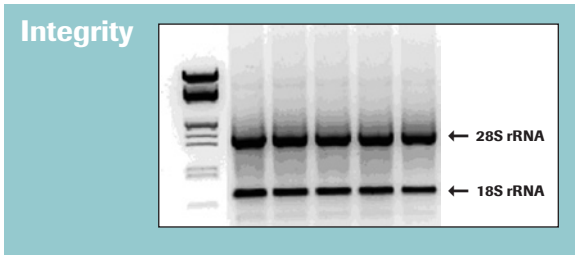
MagNA Pure LC Kits for RNA Isolation

Product	Mammalian Sample Type	Typical Sample Volume	Typical Elution Volume	Typical RNA Yield
MagNA Pure LC RNA Isolation Kit – High Performance 03 542 394 001	Whole blood, white blood cells, PBMCs, and cultured cells	• 20–200 µl whole blood (containing up to 10^4 cells/µl) • 200 µl blood cells (containing 1 x 10^6–2 x 10^6 cells) • 200 µl cultured cells (containing 10^3–10^6 cells)	50–100 µl	• For whole blood (20–200 µl sample volume): approximately 1–2 µg* • For 1–2 x 10^6 white blood cells: approximately 1–2 µg* • For 1–5 x 10^6 PBMCs: approximately 1–3 µg* • For cultured cells (200 µl K-562 cells containing 1 x 10^6 cells): approximately 15–18 µg*
MagNA Pure LC RNA Isolation Kit III (Tissue) 03 330 591 001	Fresh/frozen, paraffin-embedded, or formalin-fixed mammalian tissue	350 µl (containing 1–10 mg homogenized fresh/ frozen tissue or 5–20 µm formalin-fixed/ paraffin-embedded tissue)	50–100 µl	• For fresh frozen tissue samples: 5–50 µg* • For paraffin-embedded tissue samples: 1–3 µg*

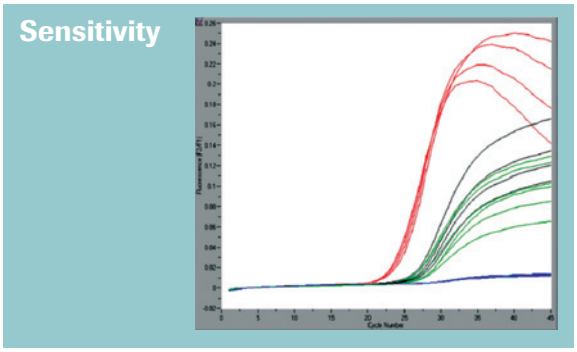
* determined by OD measurement

MagNA Pure LC RNA Isolation Kit – High Performance

(Cat. No. 03 542 394 001)



▲ **Figure 12: RNA from 1x10^6 K-562 cells was isolated using the MagNA Pure LC RNA Isolation Kit – High Performance.** Analysis by agarose gel electrophoresis demonstrates the optimal integrity and quality of the isolated nucleic acid.



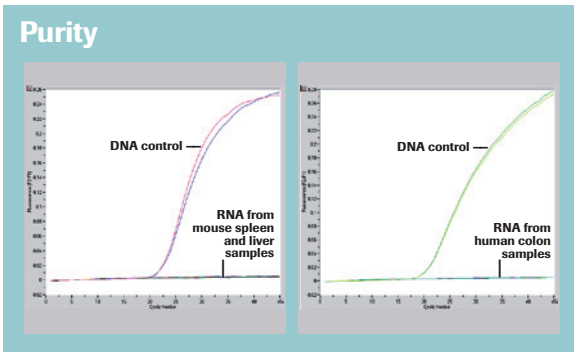
▲ **Figure 13: Comparison of competitive automated and manual isolation methods with the MagNA Pure LC RNA Isolation Kit - High Performance.** LightCycler® RT-PCR analysis of RNA purified from 200 µl blood. RT-PCR with RNA isolated using the MagNA Pure RNA – High Performance Kit shows higher yield and reproducibility than other automated and manual systems.

Red – MagNA Pure LC RNA Isolation Kit - High Performance
Black – automated isolation (supplier Q)
Green – manual isolation kit (supplier Q)

MagNA Pure LC RNA Isolation Kit III (Tissue)

(Cat. No. 03 330 591 001)

▶ **Figure 14: Total RNA was isolated from research tissue samples (murine liver and spleen, and human colon) using the MagNA Pure LC RNA Isolation Kit III (Tissue).** RT-PCR analysis using the LightCycler® Instrument shows highest purity of the isolated RNA: no traces of DNA specific for Cyclophilin A are found in the isolates. As a control, the same target was amplified from 10 ng human genomic DNA.

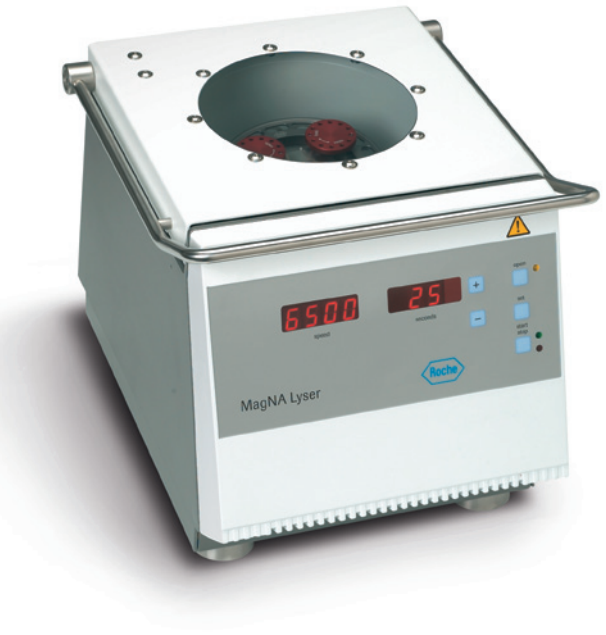


The MagNA Lyser System

Easy-to-use automated sample homogenization

The MagNA Lyser Instrument is specially designed and optimized for use with MagNA Pure LC 2.0 or other MagNA Pure Isolation Kits, which extract DNA, or RNA from different tissue sources. For this purpose, standalone MagNA Pure lysis buffers are provided. It is also designed for use with the SeptiFast (CE-IVD) LightCycler® Kit.

This instrument performs efficient homogenization of mammalian tissue, blood or culture cells, bacteria, plant tissue, or other materials. The MagNA Lyser Instrument and Green Bead Tubes can also be used with our High Pure product line for manual purification. Or use it for other applications in which mechanical tissue and cell disruption using a bead mill is required.



- Space-saving benchtop instrument simplifying labor intensive sample pre-preparation of difficult sample materials like tissue, bacteria and fungi.
- Efficient homogenizing up to 16 samples in just a few seconds yielding consistent and reproducible results.
- Prevents nucleic acid degradation with a benchtop cooling block.
- Easy setup and cleanup with a removable rotor and prefilled disposable vials.
- Perfect integration into automated nucleic acid isolation workflow when using any MagNA Pure System.

See www.magnapure.com for further user applications.

The MagNA Lyser Instrument

Simplify labor-intensive sample preparation

MagNA Lyser Instrument Specifications	
Cat. No.	03 358 976 001 (230 Volt)
Cat. No.	03 358 968 001 (110 Volt)
Dimensions	W 305 mm x D 381 mm x H 280 mm W 12 in x D 15 in x H 11 in
Weight	19.8 kg (44 lbs)
Capacity	Rotor with 1–16 positions
Power Source	AC 110 to 240 V

Regulatory Compliance: For laboratory use (USA). IVD-CE certified, when used with the SeptiFast (CE-IVD) LightCycler® Kit. [For rapid detection of septicaemia]

Use the MagNA Lyser Instrument to easily homogenize your samples. This unique and automated instrument is the ideal companion to any MagNA Pure System. Homogenize up to 16 samples in just a few minutes and then proceed to your automated nucleic acid purification.

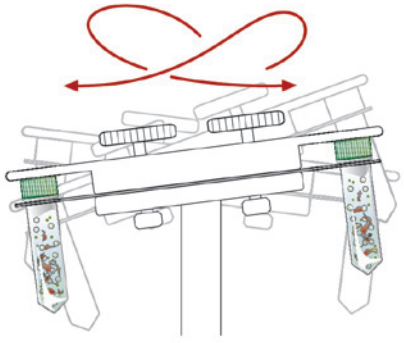
MagNA Lyser Rotor

MagNA Lyser Rotor Cooling Block

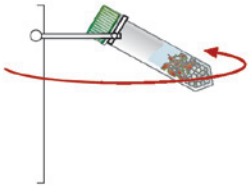
MagNA Lyser Green Beads

▼ Figure 15: MagNA Lyser Workflow

Add your sample and lysis buffer to the MagNA Lyser Green Beads.



Homogenize with the MagNA Lyser Instrument.



Centrifuge to pellet the debris.

Use the supernatant to prepare nucleic acids or proteins.

Ordering Information

Instrument	Cat. No.	Pack Size
MagNA Pure LC 2.0 Instrument Inbuilt PC with Touch Screen, preinstalled software and purification protocols	05 197 686 001	■ 1 MagNA Pure LC 2.0 Instrument ■ MagNA Pure LC Cooling Block, LC Centrifuge Adapters ■ MagNA Pure LC Cooling Block, 96-well PCR Plate ■ LightCycler® 480 PCR Plate Adapter ■ Touch Screen Pen ■ MagNA Pure LC 2.0 Postelution Software ■ MagNA Pure LC 2.0 Operators Manual ■ MagNA Pure LC Greasing Set ■ O-Ring Exchange Tool

All accessories, disposables and reagent kits are for MagNA Pure LC 1.0 (MagNA Pure LC) and MagNA Pure LC 2.0 Instruments.
Where marked with an *, these items are for MagNA Pure LC 2.0 Instrument only.

Instrument Accessories	Cat. No.	Pack Size
MagNA Pure LC Cooling Block, LC Centrifuge Adapters	12 190 664 001	1 cooling block with 32 LightCycler® Adapters
MagNA Pure LC Cooling Block, LC Sample Carousel	12 189 704 001	1 cooling block
MagNA Pure LC Cooling Block, 96-well PCR Plate	12 189 674 001	1 cooling block
MagNA Pure LC 2.0 LightCycler® 480 Plate Adapter	05 323 983 001	1 adapter
MagNA Pure LC Cooling Block, Reaction Tubes	12 189 666 001	1 cooling block
MagNA Pure LC Tip Rack (Small Tips)	03 253 783 001	1 tip rack
MagNA Pure LC Tip Rack (Large Tips)	03 253 775 001	1 tip rack
MagNA Pure LC Reagent Reservoir Rack	03 253 767 001	1 rack
MagNA Pure LC 2.0 Waste Slide	05 324 122 001*	1 waste slide
MagNA Pure LC Liquid Waste Funnel	03 253 805 001	1 liquid waste funnel
MagNA Pure LC Waste Bottle Tray	03 253 813 001	1 waste bottle tray
MagNA Pure LC Greasing Set	03 561 402 001	1 set
MagNA Pure LC O-Ring Maintenance Kit	03 561 429 001	1 kit
MagNA Pure LC 2.0 Waste Box*	05 323 991 001	1 box
MagNA Pure LC 2.0 Waste Box Lid*	05 324 114 001	1 lid

Kits and Reagents	Cat. No.	Pack Size
DNA Isolation		
MagNA Pure LC DNA Isolation Kit I	03 003 990 001	1 kit (192 isolations)
MagNA Pure LC DNA Isolation Kit I – Large Volume	03 310 515 001	1 kit (96–288 isolations)
MagNA Pure LC DNA Isolation Kit II (Tissue)	03 186 229 001	1 kit (192 isolations)
MagNA Pure LC DNA Isolation Kit III (Bacteria, Fungi)	03 264 785 001	1 kit (192 isolations)

Kits and Reagents	Cat. No.	Pack Size
Total Nucleic Acid Isolation		
MagNA Pure LC Total Nucleic Acid Isolation Kit	03 038 505 001	1 kit (192 isolations)
MagNA Pure LC Total Nucleic Acid Isolation Kit – Large Volume	03 264 793 001	1 kit (192 isolations)
MagNA Pure LC Total Nucleic Acid Isolation Kit – High Performance	05 323 738 001	1 kit (up to 288 isolations)
RNA Isolation		
MagNA Pure LC RNA Isolation Kit – High Performance	03 542 394 001	1 kit (192 isolations)
MagNA Pure LC RNA Isolation Kit III (Tissue)	03 330 591 001	1 kit (192 isolations)
Buffer Refill Sets		
MagNA Pure LC DNA Isolation Kit I Lysis/Binding Buffer Refill	03 246 752 001	100 ml
MagNA Pure LC Total Nucleic Acid Isolation Kit – Lysis/Binding Buffer Refill	03 246 779 001	100 ml
MagNA Pure LC RNA Isolation Tissue Lysis Buffer – Refill	03 604 721 001	70 ml

Positioning Frames
Frames for color-coded positioning of the reagent bottles into the MagNA Pure LC Instrument stage are available for free for all MagNA Pure LC Kits. Please contact your local sales organization.

Disposable Plastics	Cat. No.	Pack Size
MagNA Pure LC Reagent Tub (small)	03 004 066 001	150 tubs
MagNA Pure LC Medium Reagent Tub 20	03 004 058 001	150 tubs
MagNA Pure LC Medium Reagent Tub 30	03 045 501 001	50 tubs
MagNA Pure LC Reagent Tub (large)	03 004 040 001	120 tubs
MagNA Pure LC Reagent Tub Lid (small, medium)	03 004 082 001	300 lids
MagNA Pure LC Tub Lid (large)	03 004 074 001	120 lids
MagNA Pure LC Tub Lid Seal	03 004 104 001	400 seals
MagNA Pure LC Reaction Tip (large)	03 004 171 001	960 tips (30 x 32)
MagNA Pure LC Reaction Tip (small)	03 004 180 001	960 tips (30 x 32)
MagNA Pure LC Sample Cartridge	03 004 112 001	120 cartridges
MagNA Pure LC Cartridge Seal	03 118 827 001	200 seals
MagNA Pure LC Processing Cartridge	03 004 147 001	160 cartridges
MagNA Pure LC Tip Stand	03 004 155 001	200 tip stands
MagNA Pure LC Waste Bottle	03 004 198 001	40 bottles
MagNA Pure LC 2.0 Waste Bag*	05 324 157 001	25 bags for 3–5 runs

Workflow Accessories	Cat. No.	Pack Size
MagNA Lyser Instrument	03 358 976 001 03 358 968 001	■ 1 MagNA Lyser Instrument (230 Volt) ■ 2 rotors, 1 rotor stand, 1 rotor cooling block ■ 1 MagNA Lyser Instrument (110 Volt) ■ 2 rotors, 1 rotor stand, 1 rotor cooling block
MagNA Lyser Green Beads	03 358 941 001	100 tubes, pre-filled with ceramic beads
LC Carousel Centrifuge 2.0	03 709 582 001 03 709 507 001	1 instrument (230 Volt) 1 instrument (110 Volt)
MagNA Pure LC Barcode Scanner	please inquire	1 barcode reader
MagNA Pure LC Barcode Printer	03 576 094 001	1 barcode printer
MagNA Pure LC Barcode Labels	03 531 520 001	1 000 labels (10 mm x 60 mm)
MagNA Pure LC Barcode Printer Ribbon	03 531 538 001	1 ribbon

LightCycler® 1.5 Instrument	04 484 495 001	1 instrument
LightCycler® 2.0 Instrument	03 531 414 001	1 instrument
LightCycler® 480 Instrument II	05 015 278 001 05 015 243 001	1 instrument (96-well version) 1 instrument (384-well version)

NOTICE: This product may be subject to certain use restrictions. Before using this product please refer to the Online Technical Support page (http://technical-support.roche.com) and search under the product number or the product name, whether this product is subject to a license disclaimer containing use restrictions.

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