# QIAcube<sup>®</sup> HT – Your Purification Expert

Fast and reliable 96-well nucleic acid purification



Sample & Assay Technologies



# Economical, high-throughput nucleic acid purification from virtually all sample types

QIAcube HT enables automated mid- to high-throughput nucleic acid purification in 96-well format using silica membrane technology. Users can quickly and easily purify DNA, RNA, and miRNA from almost any type of sample — including cells, tissues, and food material, as well as from bacteria and viruses in animal samples. Automated instrument protocols and dedicated QIAcube HT purification kits and plasticware increase reliability and convenience and save valuable time. The system provides the same high-quality results as other trusted QIAGEN purification technologies.



#### **QIAcube HT features and benefits:**

- Reliable nucleic acid extraction from virtually any sample type
- Cost and time savings with dedicated purification kits
- Intuitive software for easy data management and documentation
- Designed to increase safety and minimize cross-contamination
- Convenient, flexible, and easy-to-use instrument with small footprint

#### Innovative safety features

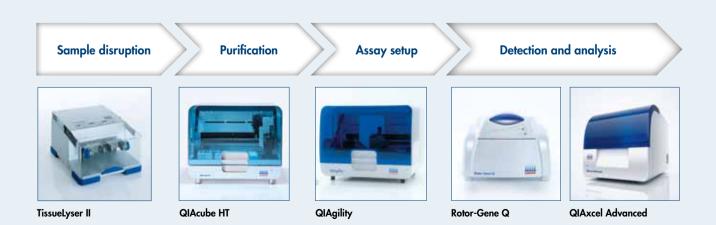
Advanced instrument safety features, including a translucent hood, help to protect precious samples from environmental contamination. The HEPA filter maintains positive clean air pressure on the worktable underneath the hood and protects precious samples from potential airborne contaminants. The UV light provides efficient worktable decontamination and helps to prevent cross-contamination. QIAcube HT ejects used tips externally through the tip disposal chute into a disposable plastic box located at the side of the instrument, preventing waste accumulation in the clean workspace. The tip disposal box holder keeps the box positioned correctly under the tip chute, and a secure-fitting lid makes waste disposal simple and safe.

#### Seamless integration into your workflow

QIAcube HT can be seamlessly integrated into your workflow and is fully compatible with QIAGEN assay technologies. Purified nucleic acids are eluted into a plate of collection tubes specifically designed for integration into downstream applications. This elution plate can be transferred to the QIAgility<sup>®</sup> instrument for automated PCR setup. Analysis by real-time PCR or RT-PCR can then be carried out on the Rotor-Gene<sup>®</sup> Q. For automated separation and analysis of a variety of nucleic acids, including single or multiple PCR fragments, the QIAxcel<sup>®</sup> Advanced capillary electrophoresis system overcomes the bottlenecks of gel electrophoresis. Visit <u>www.qiagen.com/goto/automation</u> for more on QIAGEN automation.

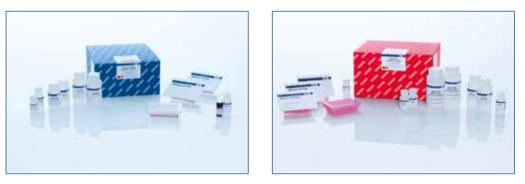


**Convenient compact design.** QIAcube HT is a compact, benchtop instrument with a very small footprint. It fits easily onto most lab benches and can be readily moved into biosafety level laboratories. QIAcube HT comes with a laptop computer for added flexibility.



#### **Dedicated purification kits**

QIAcube HT uses silica membrane technology for nucleic acid purification in 96-well format. Dedicated purification kits increase convenience and reliability while providing the same highquality results as other trusted QIAGEN purification technologies. All the plastic consumables required for typical purification runs are included in the QIAcube HT Plasticware package. Virtually any sample type can be used as starting material, including cells, tissues, bacteria, viruses, and food material.

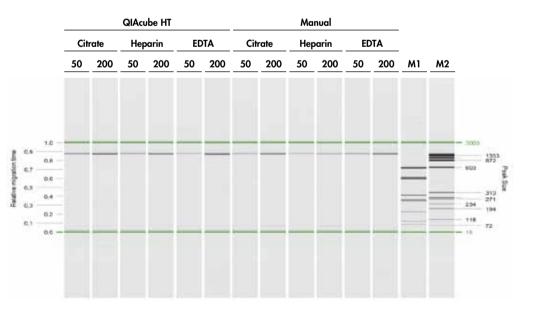


#### Free up your time. Automated nucleic acid purification with QIAcube HT and the dedicated QIAcube HT purification kits saves time and leaves you free to focus on other

tasks.

#### **DNA** purification

Automated purification of total DNA from blood, cells, and tissue samples is quick, easy, and reliable with QIAcube HT and the dedicated QIAamp 96 DNA QIAcube HT Kit. Fresh or frozen whole blood containing common anticoagulants can be processed to provide high yields of pure DNA that perform well in downstream analyses (see figure 1). QIAcube HT lets users increase sample purification throughput without having to compromise on quality or reliability.



#### gDNA. Genomic DNA was purified from 50 or 200 µl of human blood treated with sodium citrate, heparin, or EDTA. Samples were processed manually with the QIAamp 96 DNA Blood Kit or on the QIAcube HT with the QIAamp 96 DNA QIAcube HT Kit. DNA was eluted in 200 µl. PCR was carried out for a 1.2 kb Hugl gene fragment with 2.5 µl eluate. A 1 µl aliquot of each PCR was analyzed on the QIAxcel Ádvanced. M1: pUC18 HaellI marker; M2: phiX174 HaellI marker. DNA purified on QIAcube HT is of the same high quality as DNA from

manual processing.

Figure 1. Analysis of

#### **RNA** Purification

The RNeasy 96 QIAcube HT Kit makes RNA purification on the QIAcube HT simple and reliable. Six instrument protocols are available, depending on the starting material and desired size distribution of purified RNA. Users can expect linear sample recovery with no significant well-to-well variation across a 96-well plate. RNA purified with QIAcube HT exhibits high RNA Integrity Scores (RIS) (see figure 2) and performs well in downstream applications.

#### High performance with difficult sample types

Automated processing of complex samples is precise and repeatable between different purification runs on different days, providing not only convenience but also peace of mind. The QIAcube HT platform with the *cador* Pathogen 96 QIAcube HT Kit allows co-purification of viral RNA and bacterial DNA from various animal-derived samples using just one universal instrument protocol. Using proven QIAamp silica-membrane technology in a convenient 96-well format, contaminants and inhibitors are removed to yield high-quality pathogen nucleic acids that are ready for downstream analysis. The DNeasy *mericon* 96 QIAcube HT Kit has been specially adapted for use with QIAcube HT and uses an accelerated CTAB procedure to provide high yields of DNA from a variety of raw or processed food matrices, while minimizing carryover of PCR inhibitors.

	RI	RNA Integrity Score (RIS)		
	QIAcube HT	QIAcube	BioRobot Universal	
Lung	8.3	8.4	8.1	
Kidney	8.4	8.6	7.6	
Spleen	8.7	9.0	9.1	
Intestine	8.8	8.9	8.2	
Brain	7.7	7.5	7.1	

## See the complete list of available kits at <a href="http://www.qiagen.com/QIAcubeHT-Kits">www.qiagen.com/QIAcubeHT-Kits</a>!

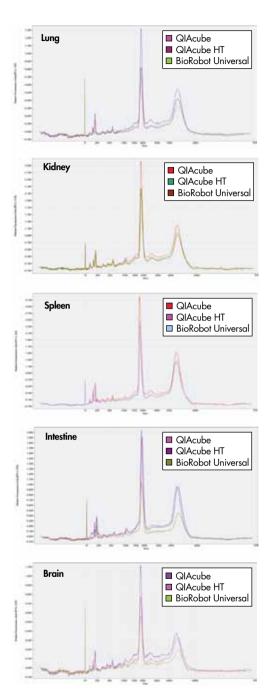


Figure 2. High-quality RNA from tissues. RNA was isolated from 10 mg of various rat tissues stabilized in RNA*later* RNA Stabilization Reagent. RNA was purified using QIAzol Lysis Reagent and the QIAcube HT, BioRobot Universal System, or QIAcube. A 1 µl aliquot of each purified RNA sample was analyzed on QIAxcel Advanced using the QIAxcel RNA QC Kit v2.0. The resulting high RNA integrity scores (RIS) indicate recovery of high-quality RNA from all platforms.



### For lower throughput needs, QIAcube is your answer

For researchers who do not need a throughput of 96 samples per run, we recommend the original QIAcube, which automates processing of more than 60 different QIAGEN spin-column kits. QIAcube eliminates tedious manual steps while enabling seamless integration of automated, low-throughput sample prep into the laboratory workflow. No change of purification chemistry is required, assuring fast startup and immediate results. All steps in the purification procedure are fully automated — up to 12 samples can be processed per run.

QIAcube is preinstalled with a variety of protocols for purification of RNA, genomic DNA, plasmid DNA, viral nucleic acids, and proteins, plus DNA and RNA cleanup. All standard protocols in the expanding range can also be downloaded free of charge. In addition, customized protocols tailored to meet specific application demands can be requested.



#### **QIAcube features and benefits:**

- Automation of trusted QIAGEN spin-column kits
- Elimination of manual processing steps
- Purification of DNA, RNA, or proteins
- More free time with affordable automated processing
- Standardized results and increased productivity

#### Discover more at <u>www.qiagen.com/QIAcube</u>!

#### **Ordering Information**

Product	Contents	Cat. no.
QIAcube HT System	Robotic workstation with UV lamp, HEPA filter, laptop, QIAcube HT operating software, start-up pack, installation and training, 1-year warranty on parts and labor	9001793
QIAcube HT Priority Package	Robotic workstation with UV lamp, HEPA filter, laptop, QIAcube HT operating software, startup pack; includes Priority Package with installation, training, 2-year warranty on parts and labor, and 2 preventive maintenance visits	9001899
QIAcube HT Priority Package Plus	Robotic workstation with UV lamp, HEPA filter, laptop, QIAcube HT operating software, startup pack; includes Priority Package with installation, training, 3-year warranty on parts and labor, and 3 preventive maintenance visits	9001900
QIAcube HT Plasticware (480)	S-blocks, filter tips, tape pads, elution microtubes, and strip caps for nucleic acid purification with QIAcube HT	950067
<i>cador</i> Pathogen 96 QIAcube HT Kit (5)	Reagents, buffers, and QIAamp 96 plates for purification of viral RNA and DNA and bacterial DNA from animal samples	541641
QIAamp 96 DNA QIAcube HT Kit (5)	Reagents, buffers, and QIAamp 96 plates for purification of DNA from blood and tissue samples	51331
DNeasy <i>mericon</i> 96 QIAcube HT Kit (5)	Reagents, buffers, and DNeasy 96 plates for purification of DNA from raw and processed food samples	69571
RNeasy 96 QIAcube HT Kit (5)	Reagents, buffers, and RNeasy 96 plates for purification of total RNA from animal and human cells and tissue	74171

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at <u>www.qiagen.com</u> or can be requested from QIAGEN Technical Services or your local distributor.

#### Visit <u>www.qiagen.com/p/QIAcubeHT</u> and increase your purification throughput!

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