Automatable on **QIAcube Connect**

QIAGEN® genomic DNA kits

For genomic and viral DNA purification from a wide range of sample materials

Our extensive range of QIAamp kits sets the standard for DNA purification, enabling rapid and efficient purification of high-quality genomic DNA from a diverse variety of sample materials for a broad range of downstream applications.

The QIAamp genomic DNA kits provide:

- Reliable DNA purification
- Fast procedures and easy handling
- Pure, ready-to-use DNA free of contaminants and enzyme inhibitors
- High DNA recovery from a wide range of sample sources
- No phenol-chloroform extraction or time-consuming alcohol precipitation

Figure 1. QIAamp genomic DNA kits and components.

Rapid and reliable purification

We provide a variety of QIAamp genomic DNA kits for fast, efficient and easy DNA purification (Figures 1 and 2). Protocols can be carried out manually (using either a microcentrifuge or a vacuum manifold*) or fully automated on the QIAcube® Connect.

QIAamp kits utilize the selective binding properties of the unique QIAamp silica membrane to isolate pure DNA. After lysis in an optimized buffer and adjustment of DNA binding conditions, the sample is loaded directly onto a QIAamp spin column. DNA is bound to the silica membrane, and contaminants are completely removed in two wash steps. Pure DNA is eluted in small volumes of a low-salt buffer or water, ready for use in downstream applications.

* Requires use of the QIAvac 24 Plus with VacConnectors (see ordering information).

DNA ready for any application

DNA purified with QIAamp genomic DNA kits has A_{260}/A_{280} ratios of 1.7–1.9, indicating absence of contaminating proteins and a high-quality DNA of up to 50 kb.

Optimized protocols

The simple protocols are based on a rapid lyse-bind-wash-elute principle. Manual protocols (using either a microcentrifuge or a vacuum manifold) require minimal user interaction and yield pure DNA in less than 30 minutes after sample lysis. Automated protocols on the QIAcube Connect enable walkaway processing. The manual and automated procedures are designed to ensure that there is no sample-to-sample crosscontamination and to allow safe handling of potentially infectious samples.

The simple procedures are highly suited for simultaneous processing of multiple samples.

QIAamp genomic DNA kits can be used with a variety of downstream methods, including:

- Multiplex PCR
- DNA methylation analysis
- Quantitative, real-time PCR and digital PCR
- STR analysis
- Next-generation sequencing

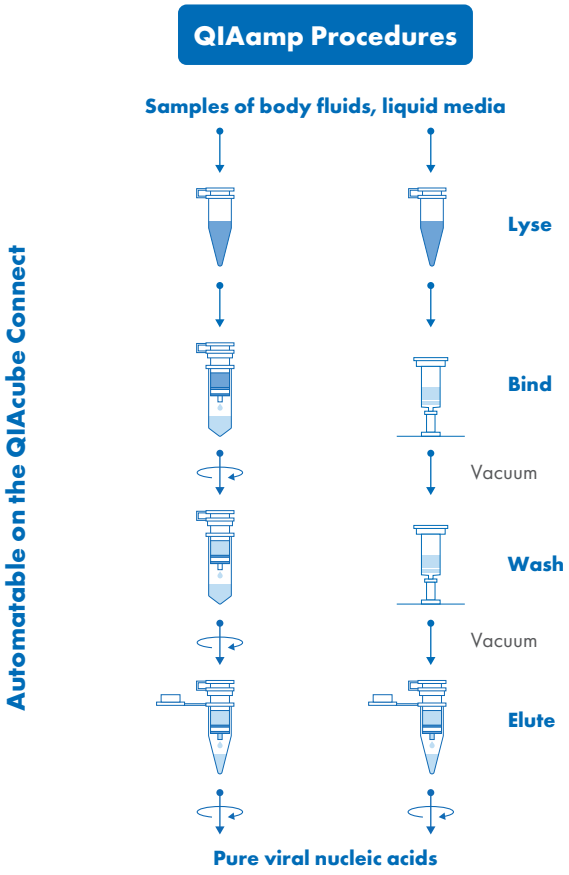


Figure 2. The QIAamp genomic DNA kits procedure.

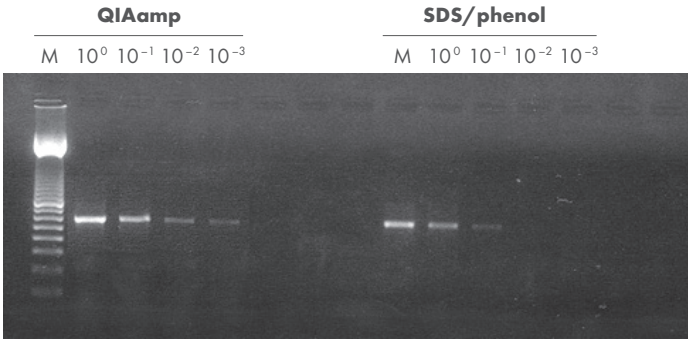


Figure 3. Efficient purification of viral DNA. Viral DNA was purified from tenfold dilutions of HBV-positive serum using the QIAamp DNA Blood Mini Kit (QIAamp) or an SDS-phenol method (SDS/phenol) and analyzed by agarose gel electrophoresis. **M:** 100 bp ladder.

Selecting the optimal kit for a wide range of sample materials

QIAamp genomic DNA kits enable purification of genomic, mitochondrial, viral, bacterial and parasite DNA from a wide range of fresh or frozen samples. Starting materials include such diverse samples as blood, other body fluids, tissue, cultured cells, stool, formalin-fixed paraffin-embedded (FFPE) tissue, swabs and dried blood spots.

Special protocols are available for yeast and bacteria. Additional protocols for specialized sample types are available as supplementary protocols at www.qiagen.com/literature.

Automatable on **QIAcube Connect**

Application	Manual						
	QIAamp DNA Blood Kits (page 7)	QIAamp DNA Micro Kit (page 8)	QIAamp DNA Mini Kit (page 9)	QIAamp DNA FFPE Advanced and UNG Kits (page 10)	QIAamp DNA Investigator Kit†	QIAamp Fast DNA Tissue Kit	QIAamp Fast DNA Stool Mini Kit (page 11)
Whole blood	●			○*	○		
Plasma and serum (viral DNA)	○		○				
Urine		○					
CSF (viral DNA)	○						
Saliva and mouthwash	●			○*			
Buffy coat	●						
Lymphocytes	●						
Bone marrow	●						
Dried blood spot		●	○	●			
Tissue		●	○	○*	●		
Bone			●	●			
Paraffin-embedded tissue					●		
Laser-microdissected tissue		●		○			
Stool							●
Cultured cells	●		●		○		
Swabs and buccal cells	●		●	●			
Forensic and human identity samples				●			

●: Recommended kit.
○: Compatible kit.

* For small volumes or from small amounts.
† Please inquire for more information

Application	Automatable on QIAcube Connect							Fully automated on EZ2 Connect			
	QIAamp DNA Blood Kits (page 7)	QIAamp DNA Micro Kit (page 8)	QIAamp DNA Mini Kit (page 9)	QIAamp DNA FFPE Advanced and UNG Kits (page 10)	QIAamp DNA Investigator Kit†	QIAamp Fast DNA Tissue Kit	QIAamp Fast DNA Stool Mini Kit (page 11)	EZ1&2® DNA Tissue Kit (page 6)	EZ1&2 DNA Blood 200 µL Kit (page 6)	EZ1&2 DNA FFPE Kit (page 6)	EZ2® PowerFecal Pro DNA/RNA Kit (page 6)
Whole blood	●				○*	○			●		
Plasma and serum (viral DNA)	○		○								
Urine		○									
CSF (viral DNA)	○										
Saliva and mouthwash	●				○*						
Buffy coat	●								●		
Lymphocytes	●										
Bone marrow	●										
Dried blood spot		●	○		●			●			
Tissue		●	○		○*	●		●			
Bone			●		●						
Paraffin-embedded tissue				●						●	
Laser-microdissected tissue		●			○						
Stool							●				●
Cultured cells	●		●			○		●			
Swabs and buccal cells	●		●		●			●			
Forensic and human identity samples					●						

●: Recommended kit.
○: Compatible kit.

* For small volumes or from small amounts.
† Please inquire for more information

Fully automated DNA purification on the QIAcube Connect

QIAamp genomic DNA kits can be fully automated on the QIAcube Connect (Figure 4). The QIAcube Connect follows the same steps as the manual procedure (i.e., bind, wash and elute) to purify high-quality DNA (Figure 5).

The standardized, automated purification procedure helps to eliminate human error, providing results that are comparable between experiments and labs. Automated purification gives you more time to focus on downstream analysis.

Walkaway spin-column processing

The fully automated QIAcube Connect, equipped with a 12-bucket centrifuge, eliminates manual centrifugation steps, giving you more time for other tasks. Highly pure nucleic acids are eluted into collection tubes, and ready-to-use in sensitive downstream applications.

The QIAcube Connect is preinstalled with protocols for purification of genomic DNA, plasmid DNA, RNA, viral nucleic acids and proteins. The range of protocols available is continually expanding, and additional QIAGEN protocols can be downloaded free of charge at www.qiagen.com/MyQIAcubeConnect.

Figure 4. Fully automated nucleic acid purification using QIAamp genomic DNA kits. The QIAcube Connect enables walkaway automation of many QIAGEN spin-column procedures.
Visit www.qiagen.com/MyQIAcubeConnect for more information.

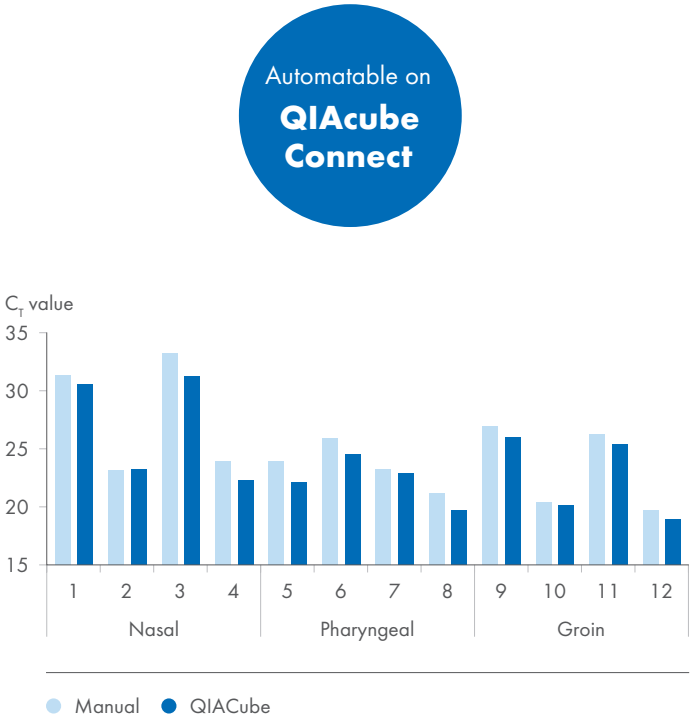


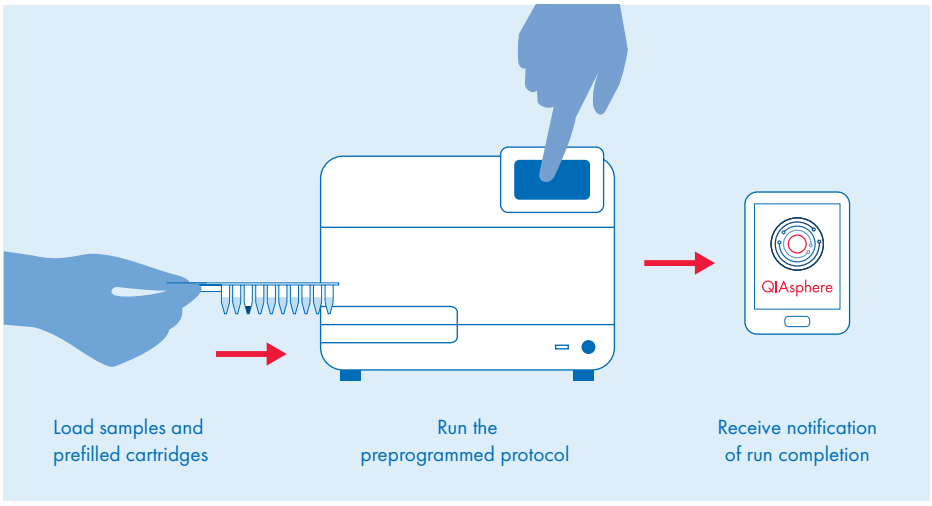
Figure 5. Comparable performance of manual or fully automated isolation of bacterial DNA from dried swabs. Dried cotton swabs (clinical specimens) were incubated in 2 mL PBS for 4 hours at room temperature. Afterwards, the liquid was split into 2 parts, and DNA was prepared with the QIAamp DNA Mini Kit using either the manual procedure or the automated QIAcube Connect procedure. Quantification of the eluted DNA with a generic 16S rDNA real-time PCR assay showed that yields from the manual and the automated procedures were comparable and that the purified DNA was free of PCR inhibitors (C_T[10–40%] = ~ 2).

Fully automated purification of high-quality nucleic acids in three simple steps

EZ2 Connect streamlines sample processing with prefilled cartridge-based workflows, handling up to 24 samples simultaneously (Figure 6). This benchtop system automates key pretreatment steps by piercing sealed cartridges, heating samples for incubation and precisely dispensing beads, buffers and enzymes. Its intuitive touchscreen makes operation simple, both for beginners and advanced users. Plus, with remote connectivity, you can monitor runs and manage the instrument from anywhere outside the lab (Figure 7).

No matter your sample type – FFPE, liquid biopsy, trace samples, cells, tissue, whole blood or more – EZ2 Connect kits come with preprogrammed protocols tailored to your needs. Designed for efficiency, reproducibility and flexibility, the EZ2 Connect helps your lab keep up with demanding workflows. The EZ2 Connect protocols can be downloaded for free at www.qiagen.com/MyEZ2Connect.

The EZ1&2 DNA Tissue Kit, EZ1&2 DNA Blood 200 µL Kit, EZ1&2 DNA FFPE Kit and EZ2 PowerFecal Pro DNA/RNA Kit provide fully automated purification of high-quality nucleic acids, even from the toughest sample types.



Fully automated on **EZ2 Connect**

Figure 6. Three simple steps for isolating DNA and RNA. Following the touchscreen instructions, the user loads labware and samples, selects a preinstalled protocol and starts the run. The EZ2 Connect then automates lysis, washing, binding and elution. Once complete, the QIAsphere App notifies the user that the purified nucleic acids are ready for collection.

Figure 7. End-to-end automation of nucleic acid extraction, from reagent setup to elution. The EZ2 Connect is a fully automated benchtop system for hands-free nucleic acid extraction with prefilled cartridges and remote monitoring. Visit www.qiagen.com/MyEZ2Connect for more information.

Small- to large-scale DNA purification from blood and body fluids

QIAamp DNA Blood Kits

Automatable on **QIAcube Connect**

QIAamp DNA Blood Kits provide rapid and efficient purification of genomic and viral DNA from 200 µL to 10 mL of whole human blood using QIAamp spin-column technology.

The standardized, automated purification procedure helps to eliminate human error, providing results that are comparable between experiments and labs. Automated purification gives you more time to focus on downstream analysis.

QIAamp DNA Blood Kits provide:

- Mini-, midi- and maxi-preps
- Fast and convenient processing, even with large-volume samples
- Easy procedure with no additional erythrocyte lysis

QIAamp DNA Blood Mini, Midi and Maxi procedures are optimized for purification of genomic and viral DNA from whole blood, plasma, serum, bone marrow, body fluids and cultured cells. These procedures can be used with fresh or frozen blood samples treated with common anticoagulants, such as EDTA, citrate or heparin. Purification of DNA using the QIAamp DNA Blood Mini Kit can be fully automated on the QIAcube Connect. Purified DNA is of high molecular weight, up to 50 kb, with a predominant fragment size of 30 kb. DNA molecules as small as 200 bp can be isolated as well. The DNA can be successfully amplified even in long-range PCR and is sufficiently concentrated for Southern-blotting applications.

Table 1. Sample size and yields with different QIAamp DNA Blood Kits

QIAamp DNA Blood Kit	Starting material	Sample size	Average yield
Mini	Blood	200 µL	5–8 µg
	Buffy coat	200 µL	15–40 µg
	Dried blood spots	3 x 3 mm	50–150 ng
	Cultured cells	1 x 10^7	40–60 µg
Midi	Blood	1–2 mL	25–80 µg
		2 x 10^7	70–150 µg
Maxi	Blood	10 mL	150–300 µg
		1 x 10^8	300–600 µg

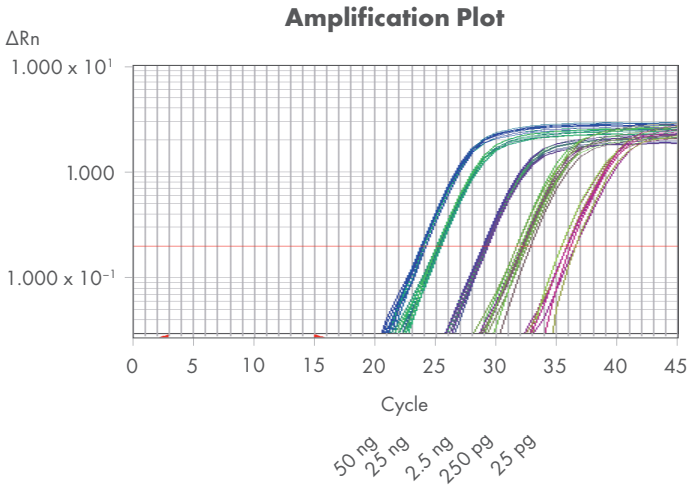


Figure 8. Reproducible and reliable purification and conversion of methylated DNA for methylation-specific PCR. Genomic DNA was isolated from human samples using the QIAamp DNA Blood Mini Kit, and different amounts of DNA were bisulfite-converted using the EpiTect® 96 Bisulfite Kit. The converted DNA was used for real-time PCR analysis of the glutathione S-transferase gene using the QuantiTect® Probe PCR Kit. Highly reproducible results were obtained for all DNA amounts tested.

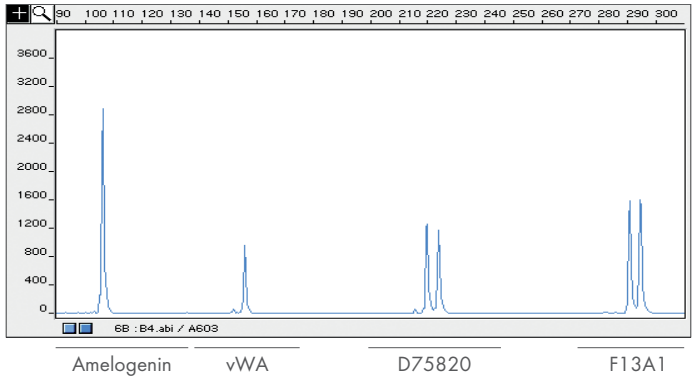


Figure 9. High performance in STR analysis. The amelogenin gene and the indicated STR loci were amplified in 6-plex PCR using FAM™ and HEX™ labeled primers and template DNA purified using QIAamp DNA Blood Kits. STR traces were analyzed using the FAM or HEX (not shown) channel of a DNA sequencer.

Purification of genomic and mitochondrial DNA from small sample

The QIAamp DNA Micro Kit is designed for purification of genomic, mitochondrial and viral DNA from small amounts of fresh or frozen blood, tissue and dried blood spots.

The QIAamp DNA Micro Kit provides:

- Purification from rare of precious samples (e.g., laser-microdissected tissues)
- Low-elution volume and increased DNA concentration
- Highly pure DNA for high sensitivity in downstream applications

The QIAamp DNA Micro Kit combines the selective binding properties of QIAamp silica-membrane spin columns with flexible elution volumes between 20 and 100 µL. QIAamp MinElute® technology enables a reduction of elution volume for more highly concentrated eluates. This enables downstream applications such as PCR to be performed in very low volumes. For downstream applications that require a larger starting volume of eluate, the elution volume can be increased up to 100 µL.

The procedure is suitable for a wide range of sample materials, such as small volumes of blood, blood cards, fine needle aspirates and small tissue samples (including laser-microdissected samples). Purification of DNA using the QIAamp DNA Micro Kit can be automated on the QIAcube Connect.

Samples can be either fresh or frozen. DNA purified using the QIAamp DNA Micro Kit is immediately ready for use in sensitive downstream applications, such as real-time PCR (Figure 11), laser microdissection (LMD) PCR and STR analysis (Figure 12). Samples can be stored frozen at –15 to –30°C or conveniently stored for years and transported at room temperature in QIAsafe® DNA Tubes and 96-Well Plates.

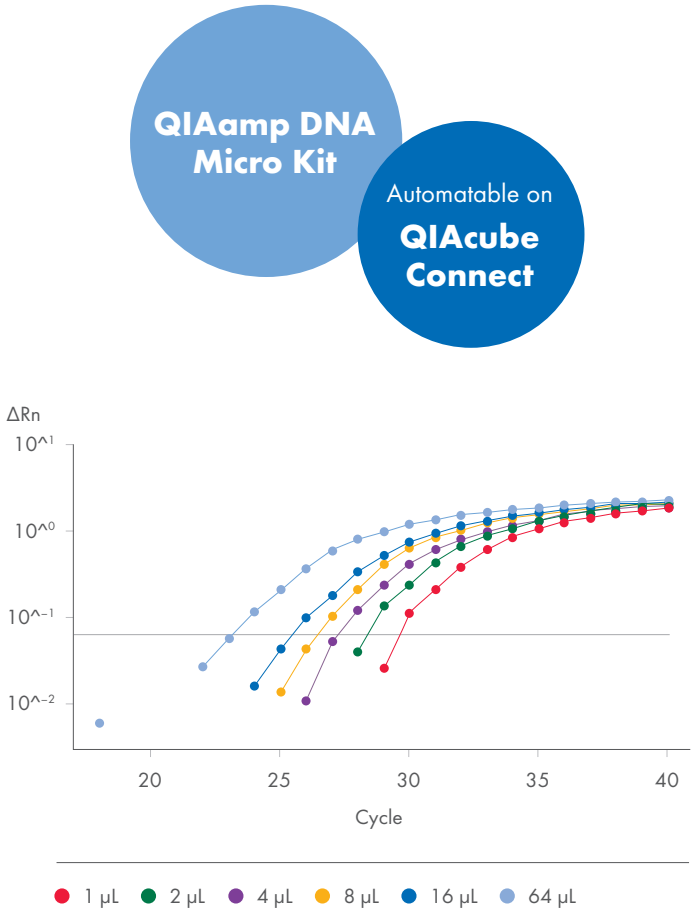


Figure 11. Efficient purification of DNA from small sample volumes for real-time PCR. DNA was purified from 1–64 µL blood samples using the QIAamp DNA Micro Kit and amplified by real-time PCR. Efficient amplification was achieved with all sample amounts.

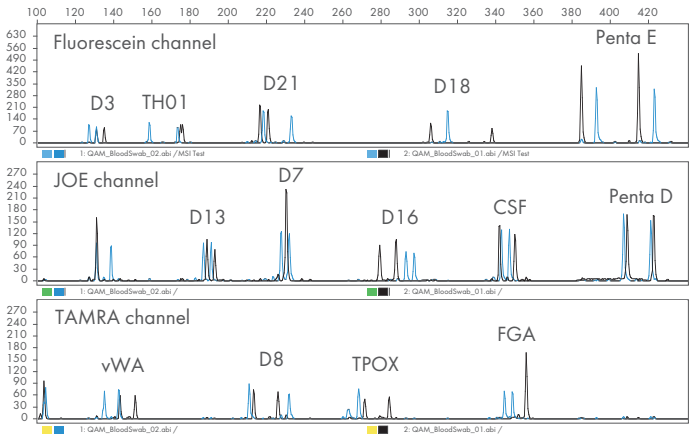
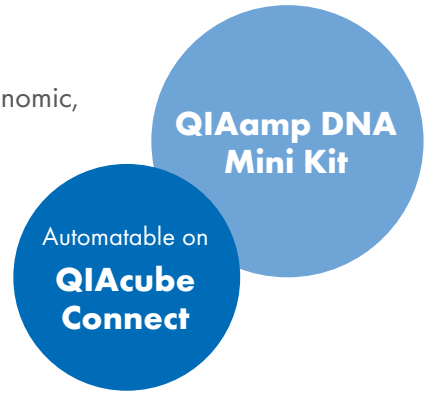


Figure 12. High performance in STR analysis. The QIAamp DNA Micro Kit was used to purify DNA from swabs with 2 µL blood from individual donors. PowerPlex® 16 multiplex STR data generated using GeneScan® 3.0 software are displayed.

Purification of genomic and viral DNA from tissues and other samples

QIAamp DNA Mini Kits enable rapid and efficient purification of high-quality genomic, mitochondrial and viral DNA from a variety of tissues and other sample types.



The QIAamp DNA Mini Kit provides:

- Efficient lysis with no mechanical homogenization
- Only 20 minutes of total hands-on preparation time
- Purification of high-quality DNA from a wide range of samples

The QIAamp DNA Mini Kit can be used to isolate DNA from human tissues, swabs, blood or washed cells from urine. Special protocols for yeast and bacteria are included in the kit handbook. For microbiome analysis, specialized kits designed for stool and gut sample processing are also available. Additional supplementary protocols can be accessed as needed at www.qiagen.com/literature.

For greater speed and convenience, DNA can be purified from blood and other body fluids using vacuum pressure instead of centrifugation. Purification of DNA using the QIAamp DNA Mini Kit can also be automated on the QIAcube Connect for increased standardization and ease of use.

Purified DNA is of high quality and ready to use in a wide range of downstream applications, including multiplex PCR analysis (Figure 10).

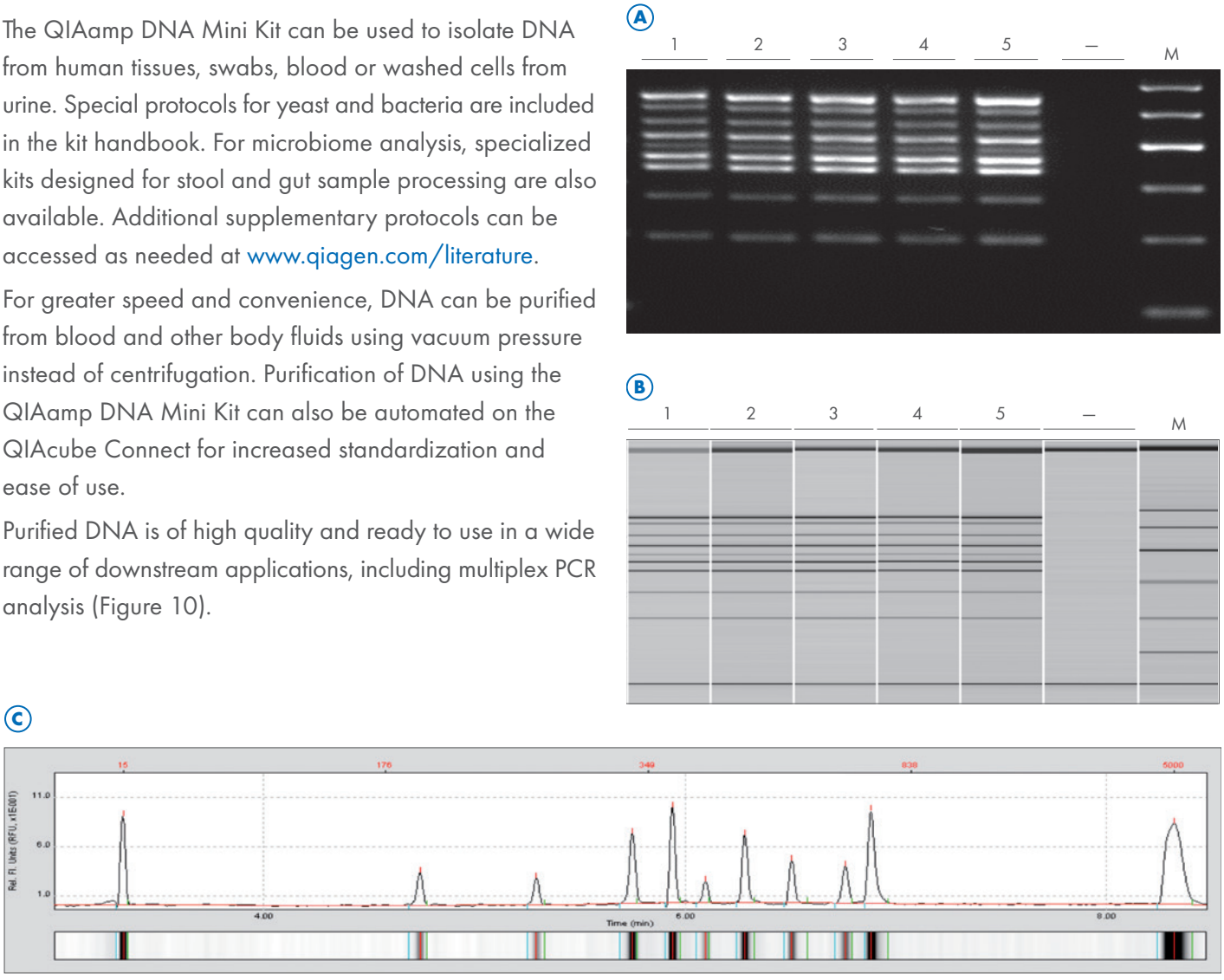


Figure 10. High-quality DNA for multiplex PCR analysis. Genomic DNA was purified from 5 human blood samples (1–5) using the QIAamp DNA Mini Kit and amplified in multiplex PCR using the QIAGEN Multiplex PCR Kit and primer pairs for 9 different gene targets. (**A**) PCR products were analyzed by agarose gel electrophoresis. (**B**) PCR products were analyzed by capillary electrophoresis on the QIAxcel System using the QIAxcel DNA High Resolution Kit. The QIAxcel generates a gel-like image. (**C**) Detailed information from each lane can be visualized on the QIAxcel as an electropherogram. Sample 5 is shown.
–: No template control; **M:** GelPilot® 100 bp Ladder.

Purification of DNA from formalin-fixed, paraffin-embedded (FFPE) tissue

The QIAamp DNA FFPE Advanced and Advanced UNG Kits are specially designed for purifying DNA from formalin-fixed, paraffin-embedded (FFPE) tissue sections.

The QIAamp DNA FFPE Advanced and Advanced UNG Kits provide:

- Paraffin removal without xylene or similar solvents
- Uracil (deaminated cytosine)removal step using uracil-N-glycosylase (UNG) during DNA extraction
- Ready-to-use DNA for PCR, digital PCR (dPCR) and next-generation sequencing (NGS) applications

The QIAamp DNA FFPE Advanced kits use well-established QIAamp MinElute technology for purification of genomic and mitochondrial DNA from FFPE tissue samples.

Specially optimized lysis conditions allow genomic DNA to be efficiently purified from FFPE tissue sections without the need for overnight incubation (Figure 15). Incubation at an elevated temperature after proteinase K digestion partially removes formalin crosslinking of the released DNA, improving yield as well as DNA performance in downstream assays. Note that DNA isolated from FFPE samples is usually of lower molecular weight than DNA from fresh or frozen samples. The degree of fragmentation depends on the type and age of the sample and the conditions used for fixation. The QIAamp DNA FFPE Tissue Kit yields pure DNA in less than 30 minutes after sample lysis. The simple procedure is highly suitable for simultaneous processing of multiple samples. Purification of DNA using the QIAamp DNA FFPE Tissue Kit can be automated on the QIAcube Connect. The kit combines the selective binding properties of a silica-based membrane with flexible elution volumes between 20 and 100 µL. DNA is eluted in Buffer ATE or water. Purified DNA is free of proteins, nucleases and other impurities and is immediately ready for use in amplification reactions (Figure 16) or for storage at –15 to –30°C. Genomic DNA can be conveniently stored for years and transported at room temperature in QIAsafe DNA Tubes and 96-Well Plates.

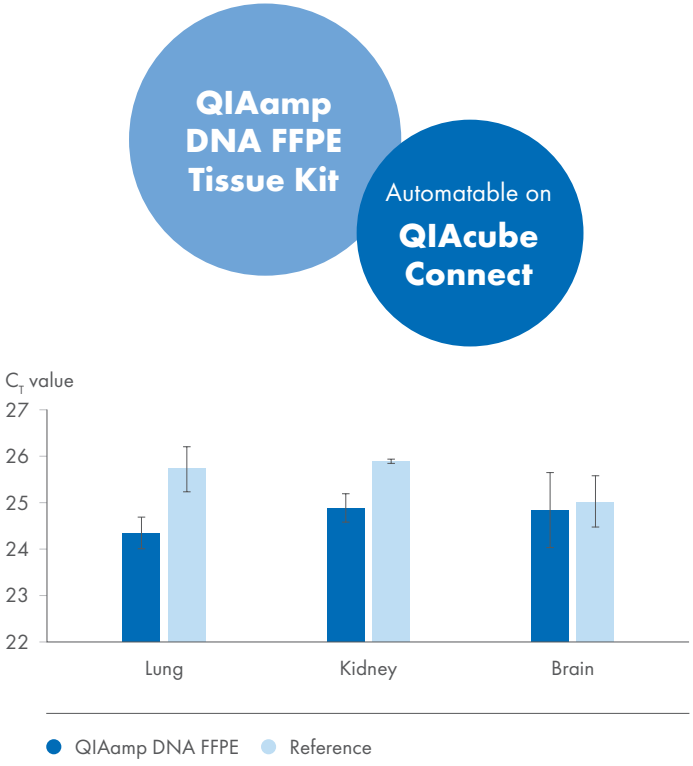


Figure 15. Improved lysis procedure. Genomic DNA was purified from different FFPE rat tissue samples using the QIAamp DNA FFPE Tissue Kit or a standard overnight proteinase K digest as reference, followed by DNA purification using the QIAamp DNA Mini Kit. DNA was quantified photometrically and 20 ng was used as a template in a real-time PCR analysis.

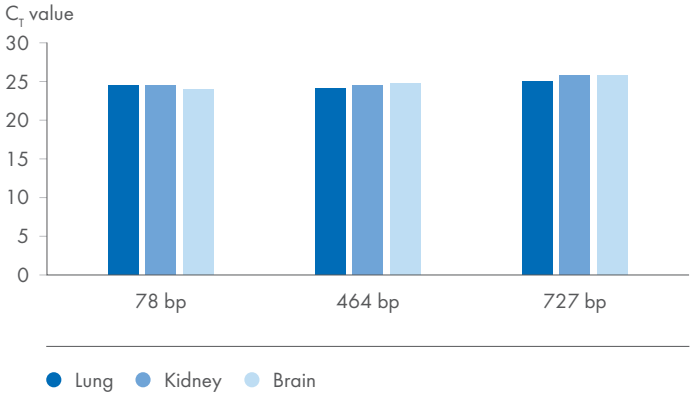


Figure 16. Successful PCR of DNA purified from FFPE tissue samples. Genomic DNA was purified from different FFPE tissue samples using the QIAamp DNA FFPE Tissue Kit. 78 bp, 464 bp and 727 bp products of the *prnp* gene were amplified by quantitative, real-time PCR.

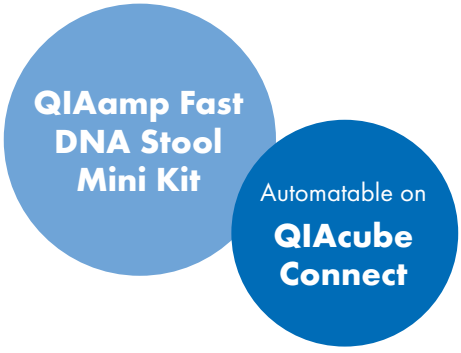
Purification of bacterial, viral, parasitic and genomic DNA from stool

The QIAamp Fast DNA Stool Mini Kit enables rapid purification of high-quality genomic DNA (human and bacterial) from fresh or frozen stool samples.

The QIAamp Fast DNA Stool Mini Kit provides:

- Efficient removal of enzyme inhibitors common in stool
- Efficient isolation of DNA from low-titer pathogens
- High performance of purified DNA in downstream assays

The QIAamp Fast DNA Stool Mini Kit is specially designed for isolation of high-quality bacterial, viral, parasitic and genomic DNA from fresh or frozen stool. The simple procedure uses InhibitEX® Buffer, a proprietary reagent that removes enzyme inhibitors and other impurities often present in high concentrations in stool. Then proven QIAamp silica-membrane technology is used for convenient spin-column purification of DNA. Purification of DNA using the QIAamp Fast DNA Stool Mini Kit can be automated on the QIAcube Connect. Successful purification enables reliable PCR amplification with no inhibition (Figure 13). The high-quality DNA can be used in sensitive downstream applications, such as quantitative, real-time PCR (Figure 14).



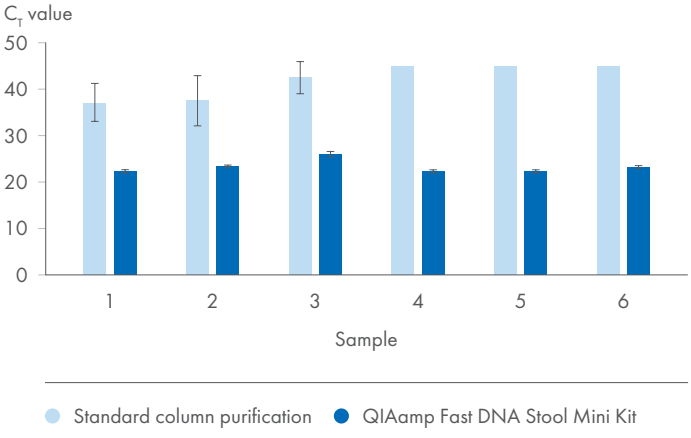


Figure 13. Efficient depletion of PCR inhibitors. DNA was isolated from 6 stool samples using either the QIAamp Fast DNA Stool Mini Kit or another standard column method. C_T values were measured with an inhibitor-sensitive PCR system. In most samples using the standard purification method the target could not be amplified due to PCR inhibition. The QIAamp Fast DNA Stool Mini Kit efficiently removed inhibitors and enabled amplification with high sensitivity.

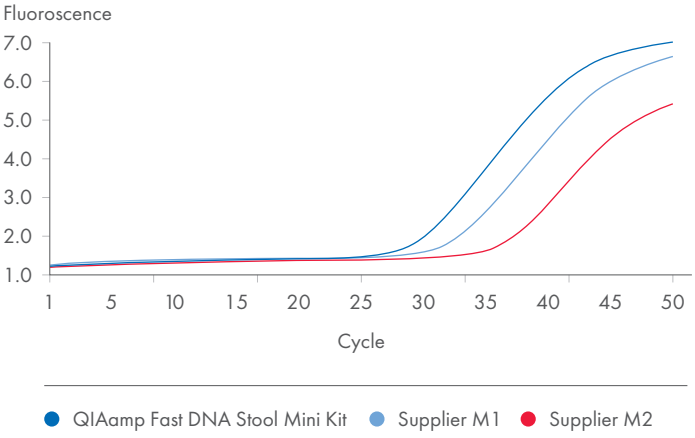


Figure 14. High sensitivity in qPCR. DNA from a stool sample was purified using the QIAamp Fast DNA Stool Mini Kit and solutions from two alternative suppliers. Equal volumes of resulting eluates with isolated DNA were used to amplify the human Alu element. The means of 2 replicates are represented in the amplification plot. The QIAamp Fast DNA Stool Mini Kit produced the lowest C_T values.

Ordering Information

Product	Contents	Cat. no.
QIAamp DNA Blood Kits – for small- to large-scale DNA purification from blood and body fluids		
QIAamp DNA Blood Mini Kit (50)*	For 50 DNA minipreps: 50 QIAamp Mini Spin Columns,	51104
QIAamp DNA Blood Mini Kit (250)*	QIAGEN Protease, Reagents, Buffers, Collection Tubes (2 mL)	51106
QIAamp DNA Blood Midi Kit (20)	For 250 DNA minipreps: 250 QIAamp Mini Spin Columns	51183
QIAamp DNA Blood Midi Kit (100)	QIAGEN Protease, Reagents, Buffers, Collection Tubes (2 mL)	51185
QIAamp DNA Blood Maxi Kit (10)	For 20 DNA midipreps: 20 QIAamp Midi Spin Columns,	51192
QIAamp DNA Blood Maxi Kit (50)	QIAGEN Protease, Buffers, Collection Tubes (15 mL)	51194
QIAamp DNA Mini Kit – for genomic purification of genomic and viral DNA from tissues and other samples		
QIAamp DNA Mini Kit (50)*	For 50 DNA preps: 50 QIAamp Mini Spin Columns, QIAGEN Proteinase K, Reagents, Buffers, Collection Tubes (2 mL)	51304
QIAamp DNA Mini Kit (250)*	For 250 DNA preps: 250 QIAamp Mini Spin Columns, QIAGEN Proteinase K, Reagents, Buffers, Collection Tubes (2 mL)	51306
QIAamp DNA Micro Kit – for purification of DNA from small samples		
QIAamp DNA Micro Kit (50)*	For 50 DNA preps: 50 QIAamp MinElute Columns, Proteinase K,	56304
QIAamp DNA Stool Mini Kit – for purification of bacterial, viral, parasite and genomic DNA from stool		
QIAamp Fast DNA Stool Mini Kit (50)*	For 50 DNA preps: 50 QIAamp Mini Spin Columns, QIAGEN Proteinase K, InhibitEX Buffer, wash and elution buffers, Collection Tubes (2 mL)	51604
Buffer ASL (560 mL)	4 x 140 mL Stool Lysis Buffer	19082
InhibitEX Tablets (100)	PCR inhibitor adsorption matrix†	19590
QIAamp DNA FFPE Advanced and Advanced UNG Kits – for purification of DNA from formalin-fixed, paraffin-embedded tissues		
QIAamp DNA FFPE Advanced Kit (50)	For 50 preps: QIAamp UCP MinElute Columns, collection tubes, Deparaffinization Solution, Proteinase K, RNase A, RNase-free water and buffers	56604
QIAamp DNA FFPE Advanced UNG Kit (50)	For 50 preps: Uracil-N-glycosylase, QIAamp UCP MinElute columns, collection tubes, Deparaffinization Solution, Proteinase K, RNase A, RNase-free water and buffers	56704
QIAcube Connect – for fully automated sample prep using spin-column kits		
QIAcube Connect‡	Instrument, connectivity package, 1-year warranty on parts and labor	9002864
Starter Pack, QIAcube	Filter-tips, 200 µL (1024); 1000 µL Filter-Tips (1024); 30 mL Reagent Bottles (12); Rotor Adapters (240);1.5 mL Elution Tubes (240); Rotor Adapter Holder (1)	990395

* Fully automatable on the QIAcube Connect. See www.qiagen.com/MyQIAcubeConnect for protocols.

† To be used with Buffer ASL during DNA purification.

‡ All configurations include a QIAcube Connect robotic workstation for automated purification of DNA and RNA using QIAGEN spin-column kits, a QIAsphere Base to connect to local network, a barcode reader and 1-year warranty on parts and labor.

Ordering Information

Product	Contents	Cat. no.
EZ2 Connect – for end-to-end automation of nucleic acid extraction, from reagent setup to elution		
EZ2 Connect	Benchtop instrument for automated isolation of nucleic acids from up to 24 samples in parallel, using sealed prefilled cartridges; includes 1-year warranty on parts and labor	9003210
EZ1&2 DNA Tissue Kit	For 48 preps: Reagent Cartridges (Tissue), Disposable Filter-Tips, Disposable Tip-Holders, Sample Tubes (2 mL), Elution Tubes (1.5 mL), Buffer G2, Proteinase K	955134
EZ1&2 DNA Blood 200 µL Kit	For 48 preps: Reagent Cartridge (Blood 200 µl), Disposable Filter-Tips, Disposable Tip-Holders, Sample Tubes (2 mL), Elution Tubes (1.5 mL)	951034
EZ1&2 DNA FFPE Kit	For 48 preps: EZ1&2 DNA FFPE cartridge, disposable filter-tips and tip-holders, tubes, Paraffin Removal Solution, Proteinase K, RNase A, RNase-free water and buffers	954404
EZ2 PowerFecal Pro DNA/RNA Kit	For 48 preps: EZ2 PowerFecal Pro Cartridges, PowerBead Pro Tubes, Disposable Filter-Tips, Disposable Tip Holders, Sample Tubes (2 mL), Elution Tubes (1.5 mL), Solution CD1 and Solution CD2	954634
QIAvac 24 Plus – for fast vacuum-driven processing of up to 24 spin columns		
QIAvac 24 Plus	Vacuum manifold for processing 1–24 spin columns: includes QIAvac 24 Plus Vacuum Manifold, Luer Plugs, Quick Couplings	19413
VacConnectors (500)	500 disposable connectors for use with QIAamp spin columns on luer connectors	19407
Vacuum Pump	Universal vacuum pump (capacity 34 L/min, 8 mbar vacuum abs.)	9003250
QIAvac Connecting System	System to connect vacuum manifold with vacuum pump: includes Tray, Waste Bottles, Tubing, Couplings, Valve, Gauge, 24 VacValves	19419
Vacuum Regulator	For use with QIAvac manifolds	19530
VacValves (24)	24 valves to regulate sample flow rate; for use with the QIAvac 24 Plus	19408
Extension Tubes (3 mL)	For processing large sample volumes with QIAGEN spin columns on vacuum manifolds: 100 per pack	19587

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Scan the QR code or use the link to learn more: **www.qiagen.com/genomicDNAkits**

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