

Service Profile

Nucleic Acid Isolation Service

Helping you accelerate your studies with an all-in-one solution

Does your lab process dozens, hundreds or even thousands of biological samples at a time? Do you handle a large variety of sample types needing different extraction protocols? With this many samples, irreproducibility, handling errors and batch-to-batch inconsistency become magnified, which can lead to higher costs and longer turnaround times. As a result, nucleic acid isolation can become a laborious, rate-limiting factor in your work.

QIAGEN Genomic Services can help you overcome these limitations thanks to our industry-leading nucleic acid isolation technologies and almost 40 years of technical expertise. With our Nucleic Acid Isolation Service, you will get high-quality DNA and/or RNA shipped to you in the container of your choice, or used directly in downstream experiments through one of our other service options. Extend your in-house resources with the expertise and flexible services that you expect from QIAGEN. Our all-in-one DNA and RNA isolation service offers the following benefits:

- **Industry-leading expertise in nucleic acid isolation:** We also have nearly 40 years of experience in isolating high-quality DNA and RNA from even the most challenging samples using our trusted nucleic acid extraction technologies
- **Automation capabilities:** Shortening of processing times and increased reproducibility
- **Guidance and flexibility:** Based on sample type and your specific requirements, we select the most optimal product and workflow for maximum yields

Partner with us for expert guidance and dedicated service – from Sample to Insight® – for preparing your samples today.

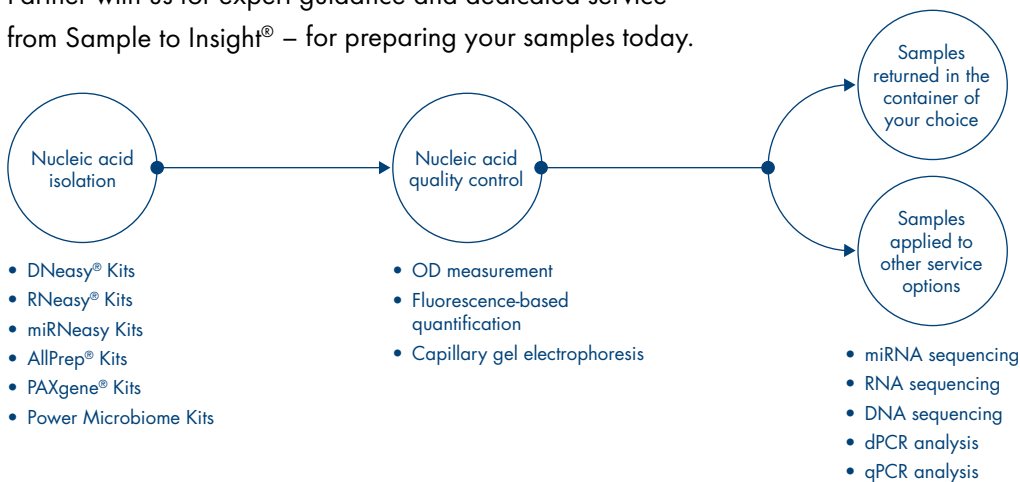


Figure 1. Sample to Insight nucleic acid isolation workflow.

High-quality nucleic acids for superior downstream results every time

We use trusted QIAGEN purification technologies to prepare DNA and/or RNA of exceptional quality, even from challenging samples. We extract DNA according to your specific needs using our industry-leading DNeasy and QIAamp Kits, optimized for use with many different sample types. Likewise, we use our RNeasy Kits and miRNeasy Kits to isolate high-quality RNA. The purified nucleic acids are subjected to a rigorous quality control step, in which samples are quantified and purity is estimated. The result: highly purified nucleic acids ready for use in any of a number of demanding downstream applications. Your isolated nucleic acids can then be returned to you or used in additional services, including Digital PCR Services, Multimodal Cancer Genomics Profiling, Whole Transcriptome Sequencing, miRNA Sequencing and more.

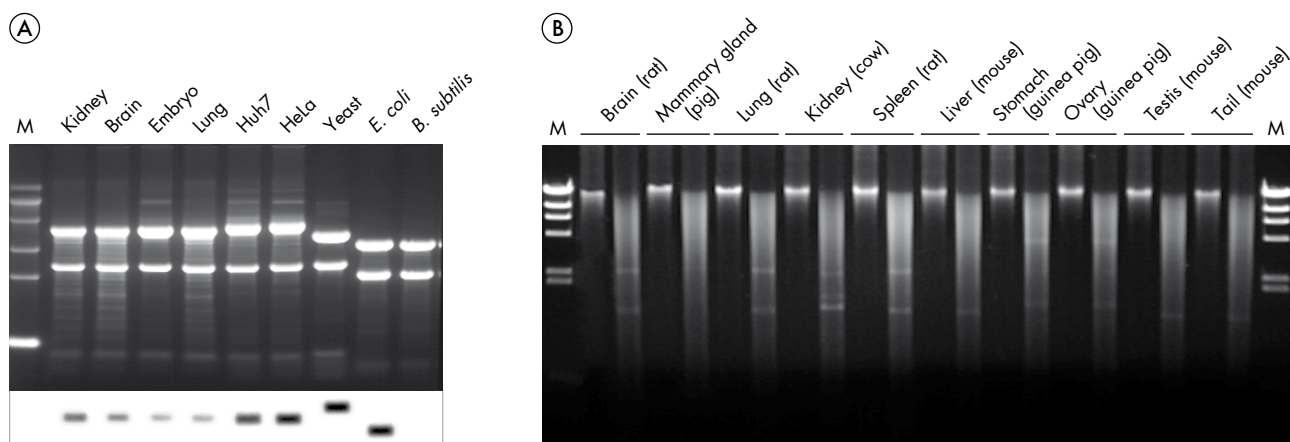


Figure 2. High-quality DNA and RNA from a variety of samples. (A) Formaldehyde agarose gel and northern blot of total RNA purified from mice with the RNeasy Maxi Kit. Total RNA (10 µg) isolated from each source was loaded per lane. (B) DNA was purified from the indicated animal tissues using the DNeasy Blood & Tissue Kit and analyzed by agarose gel electrophoresis. For each sample, 0.5 µg DNA was analyzed undigested (left) or 1 µg DNA was digested with EcoRI (right). M: lambda-HindIII.

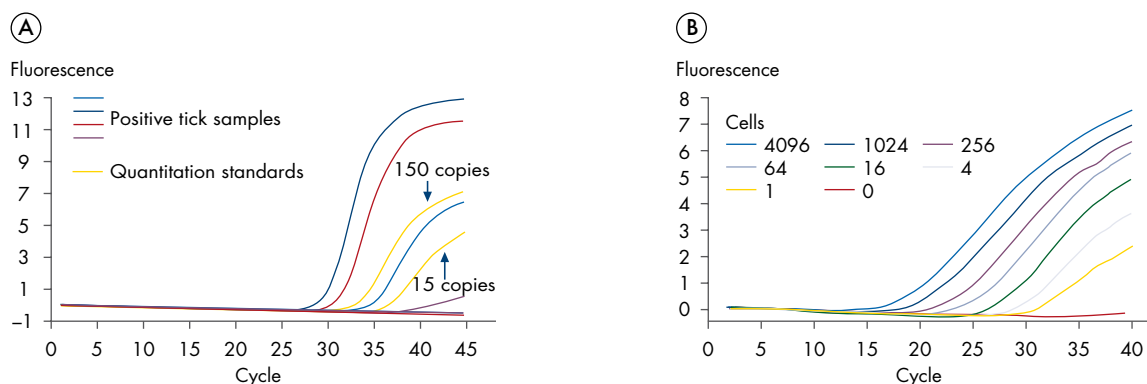







Figure 3. Reliable, sensitive RT-PCR results. (A) Real-time PCR of isolated DNA. *Borrelia* sp. is a pathogen carried by ticks that causes Lyme disease in humans and other mammals. DNA was purified from ticks using the DNeasy Blood & Tissue Kit. *Borrelia* DNA was detected in real-time PCR using the artus *Borrelia* LC PCR Kit on the LightCycler system. The lowest positive curve corresponds to 5 copies per PCR. (B) Total RNA was isolated from the indicated number of HeLa cells using the RNeasy Micro Kit. Amplification plot. Real-time RT-PCR was carried out on the LightCycler® System using the QuantiTect® Probe RT-PCR Kit, with primers and probes specific for β-actin.

Service specifications

Consultation 	Free consultation with an expert to design an experimental setup that best meets your needs.		
Sample requirements 	Sample input	Nucleic acid	Input requirements
	Cells (mammalian)	Both RNA* and DNA	Minimum: 1x10 ⁶ cells pelleted and frozen Maximum: 1x10 ⁷ cells pelleted and frozen
	Tissue (mammalian)	Both RNA* and DNA	Minimum: 10 mg Maximum: 30 mg
	Cells (mammalian)	Total RNA including miRNA/RNA*	Minimum: 5 x 10 ⁵ cells pelleted and frozen Maximum: 1 x 10 ⁷ cells pelleted and frozen
	Tissue (mammalian)	Total RNA including miRNA/RNA*	Minimum: 10 mg Maximum: 50 mg (100 mg adipose tissue)
	Serum/plasma (mammalian)	Total RNA including miRNA	250 µl (maximum input volume)
	Blood (stabilized)	RNA*/Total RNA including miRNA/DNA/cfDNA	PAXgene tube
	Cells (mammalian)	DNA	Minimum: 5 x 10 ⁵ cells pelleted and frozen Maximum: 5 x 10 ⁶ cells pelleted and frozen
	Tissue (mammalian)	DNA	Minimum: 5 mg Maximum: 25 mg
	Blood (mammalian)	DNA	Minimum: 0.2 ml Maximum: 10 ml
	Soil	DNA	Aliquoting of 200 mg in PowerBead Pro Tube
	Feces	DNA	Aliquoting of 200 mg in PowerBead Pro Tube
	Bacteria	DNA	Minimum: 1 x 10 ⁷ cells pelleted and frozen Maximum: 2 x 10 ⁹ cells pelleted and frozen
	Bacteria	Plasmid	Standard: Mini scale (sequencing-grade) On request: Maxi/Giga scale and/or transfection-grade
	Body fluids (serum/plasma/urine)	circNA (circulating nucleic acids)	Minimum: 1 ml Maximum: 4 ml
	Other	Please inquire	
Sample quality control  QC	RNA		DNA
	OD measurement, including A ₂₆₀ /A ₂₈₀ ratio (mandatory)		OD measurement, including A ₂₆₀ /A ₂₈₀ ratio (mandatory)
	Fluorescence-based dye for quantification (optional)		Fluorescence-based dye for quantification
	(Capillary) gel electrophoresis (e.g., RIN value) (optional)		(Capillary) gel electrophoresis (e.g., DIN value) (optional)
	For other quantification methods or quality controls, please inquire.		
Additional options 	Normalization Aliquoting Special requests regarding output tubes and plates		
Final report and consultation 	The final report will contain a spreadsheet of the results, including the sample names, concentrations and other information. The table layout is not fixed and can be adapted to customer needs. If requested, additional documents can be delivered (e.g., Agilent® data files).		

*RNA: >200 nucleotides

Note: Service specifications might be tailored to the needs of the project on a case-by-case basis.

How can we accelerate your research?

Our expert team is looking forward to learning about your research project and designing your customized service with QIAGEN.



The QIAGEN® Genomics Service is intended exclusively for research use only (RUO). This service is not intended for the diagnosis, prevention or treatment of a disease.

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