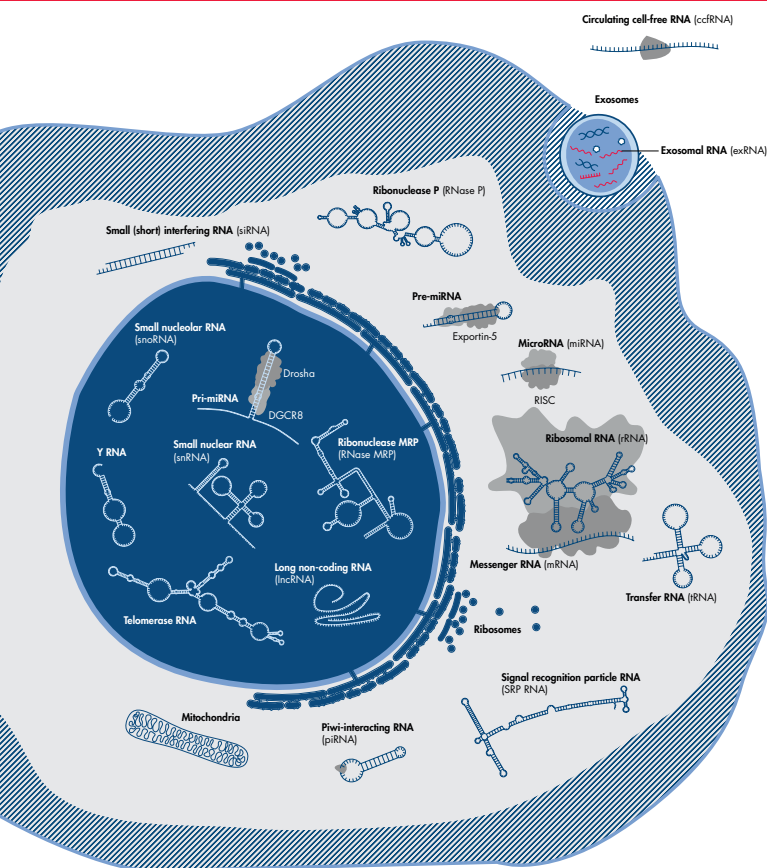




Explore the RNA Universe



Explore the RNA universe

Insights into RNA functions are changing our understanding of biomolecules, cells and diseases. Scientists worldwide are exploring and characterizing the RNA universe beyond just mRNA. Expanding our understanding of other RNA species, such as miRNA and lncRNA, is propelling these exciting areas of basic and clinical research into the limelight, creating a new frontier in biomarker discovery and research. QIAGEN offers an innovative portfolio of RNA analysis solutions that can help you gain more insights from your own RNA universe exploration. Read on to discover some of these featured products!

Enjoy RNA quality that's out of this world

Starting sample type	Target fraction			
	RNA >200 nucleotides: mRNA, lncRNA and other long RNAs		RNA enriched for miRNA and other small RNAs	
Cells or easy-to-lyse tissues	RNeasy® Plus Mini Kits* RNeasy Mini, Midi and Maxi Kits		miRNeasy® Mini Kit	
Low biomass/microsamples	RNeasy Plus Micro Kit RNeasy UCP Micro Kit† RNeasy Micro Kit		miRNeasy Micro Kit	
Difficult-to-lyse tissues including lipid-rich and fibrous tissues	RNeasy Plus Universal Kits RNeasy Lipid Tissue Kit RNeasy Fibrous Tissue Kit		miRNeasy Mini Kit	
Plants and fungi	RNeasy Plant Mini Kit‡		miRNeasy Mini Kit	
FFPE tissue	RNeasy FFPE Kit RNeasy DSP FFPE Kit§		miRNeasy FFPE Kit	
Multianalyte	AllPrep® DNA/RNA Mini Kit AllPrep DNA/RNA FFPE Kit AllPrep DNA/RNA Micro Kit		AllPrep DNA/RNA/miRNA Universal Kit	
RNA cleanup and concentration	RNeasy MinElute® Cleanup Kit			
	Intact vesicles	Exosomal RNA	Cell-free miRNA	Cell-free DNA, RNA
Biofluids	exoEasy Maxi Kit miRCURY® Exosome Kits	exoRNeasy Midi/Maxi Kits	miRNeasy Serum/ Plasma Advanced Kit	QIAamp® ccfDNA/RNA Kit

* Includes gDNA Eliminator columns for gDNA removal. † UCP: Ultra-clean production for minimal exogenous nucleic acids for RNA-seq of low-abundance targets. ‡ Includes QIAshredder for homogenization. § The RNeasy DSP FFPE Kit is for in vitro diagnostic use.

RNeasy Plus and miRNeasy Kits

- Obtain high-quality total RNA, including mRNA, miRNA and lncRNA from cells, tissues, FFPE samples and biofluids in minutes

PAXgene® Systems

- Stabilize RNA in human tissue or blood, followed by isolation of RNA or miRNA with the PAXgene RNA or miRNA kits
- Achieve unbiased gene expression data without artificial changes of mRNA levels

exoRNeasy Kits

- High-quality isolation of extracellular vesicles and their RNA content from all types of biofluids
- Increase sensitivity by scaling up your input volume using a fast and convenient spin-column procedure

QIAcube® Connect

- Seamless automation of spin-column kits, including RNeasy, QIAamp, miRNeasy and many more
- Ensures standardized results, allowing more time to focus on other tasks

QIAxpert® and QIAxcel® Advanced

- Quickly and easily assess sample concentration, purity and size distribution from minimal input volumes
- Save time, reduce costs and gain peace of mind by only processing samples of highest quality

Propel your RNA analyses

QuantiNova® for SYBR® Green, probe or multiplex qPCR and qRT-PCR

- A new level of efficiency and reproducibility based on in-process safety features
- Pipetting controls and integrated gDNA removal minimize variables, while novel hot-start mechanisms ensure convenience

RT²® Profiler® PCR Assays and Arrays for mRNA and long non-coding RNA

- Complete system for SYBR Green PCR, available in pre-formatted panels by pathway, disease or your own custom list
- Integrated controls for all enzymatic steps and sample quality plus extensive, free online data analysis tools

miRCURY LNA® miRNA PCR System

- Sensitive qPCR-based miRNA profiling with minimal false positives in all sample types, even biofluids with low RNA content
- LNA technology provides unmatched specificity, enabling detection and profiling of all miRNAs, even AT-rich species

GeneGlobe®

- Find products and relevant biological and scientific content and swiftly build custom assays and arrays tailored to your research
- Primer assays and arrays for mRNA, miRNA, lncRNA, siRNA, genotyping and more

Antisense LNA GapmeRs

- Efficient silencing of any mRNA or lncRNA, effective in vitro and in vivo
- Targets both cytoplasmic and nuclear-retained RNAs

miRCURY LNA miRNA Detection Probes

- High-affinity, LNA-enhanced probes for ISH studies with exceptional sensitivity and specificity

miRCURY LNA miRNA Inhibitors, Mimics and Target Site Blockers

- LNA enhancement provides high potency and minimal off-target effects for successful miRNA functional studies
- Potent, long-lasting inhibition in live animals allows studies of novel therapeutics

A solution for every step of your RNA workflow



Instruments

- QIAcube Connect/QIAcube HT
- QIAAsymphony® SP/AS
- QIAxcel Advanced
- QIAxpert (for QC)
- QIAxpert
- QIAxcel Advanced

Kits and reagents

mRNA/lncRNA
profiling

- RNeasy Plus Kits
- RNeasy Kits for all sample types
- exoRNeasy Kits for exosomal RNA
- PAXgene Blood/Tissue RNA Systems for stabilization and purification
- Custom LNA mRNA Detection Probes For mRNA and lncRNA
- QIAseq® FastSelect RNA Removal Kits
- QIAseq Stranded mRNA Select Kits
- QIAseq Stranded Total RNA Lib Kits
- QIAseq UPX 3' Transcriptome Kits
- QIAseq UPX 3' Targeted RNA Panels
- QIAseq Targeted RNA Panels
- QIAseq Targeted RNAscan Panels
- QIAseq Immune Repertoire RNA Library Kits
- QIAseq FX Single Cell RNA Library Kits

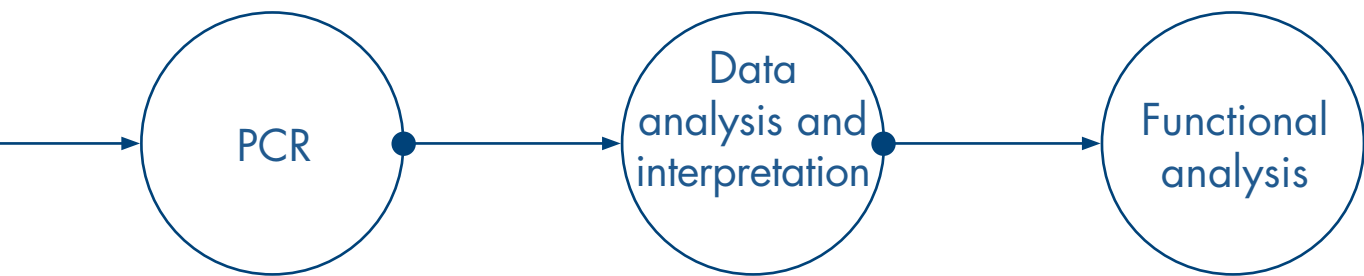
miRNA
profiling

- miRNeasy Kits for all sample types
- PAXgene Blood/Tissue miRNA Systems for stabilization and purification
- miRCURY LNA miRNA Detection Probes
- QIAseq miRNA Library Kits
- QIAseq miRNA Library QC PCR Panel and Assays

Genomic Services

All

- RNA isolation
- Aliquoting
- mRNA-seq
- miRNA-seq
- Biofluids RNA-seq
- Exosome miRNA-seq
- QIAseq Targeted RNA panels
- UPX 3' transcriptome-seq



- QIAgility®
- Rotor-Gene® Q
- QIAasymphony SP/AS

- RT² Profiler PCR Arrays
- Predesigned assays and pathway panels for mRNA and lncRNA

- QuantiNova qPCR Kits
- Combined with self-designed primers or QuantiTect® Primer Assays

- miRCURY LNA miRNA PCR System
- Predesigned or custom PCR assays and panels

- Ingenuity® Pathway Analysis (IPA®)
- CLC Genomics Workbench
- GeneGlobe Data Analysis Center

- Antisense LNA GapmeRs
- For mRNA and lncRNA silencing in vitro and in vivo

- miRCURY LNA miRNA Mimics, Inhibitors and Target Site Blockers

- miRCURY LNA miRNA qPCR
- miScript miRNA qPCR
- RT² Profiler qPCR

- XploreRNA
- Biomedical Genomics Workbench
- CLC Genomics Workbench

Jump-start your RNA sequencing

As scientific focus shifts from the theoretical potential of a cell embodied in genomics to the actual status of a cell mirrored in transcriptomics, RNA-seq has evolved into the leading application for NGS. Our comprehensive collection of high-quality NGS kits, coupled with powerful bioinformatics, lets you dive into the complexity of the transcriptome by analyzing targeted or transcriptome-wide gene expression or cataloging transcript variants, allelic expression patterns, fusion genes, lncRNAs, miRNAs and piRNAs.

Our QIAseq products for RNA-seq are perfectly aligned with QIAGEN's sample isolation kits and bioinformatics solutions for a complete Sample to Insight® workflow.

QIAseq Kits for RNA-seq

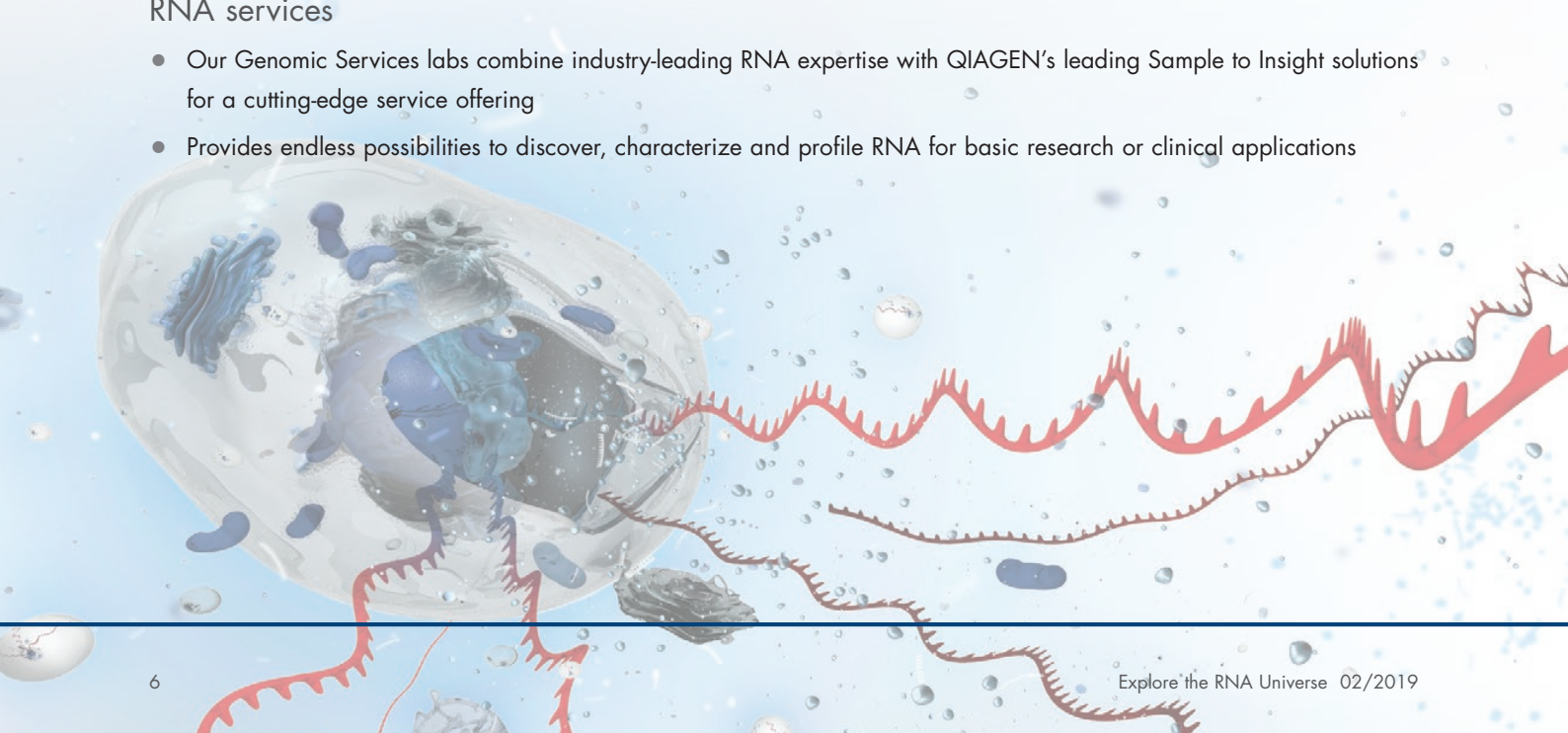
- Unique Molecular Indices (UMIs) for increased precision of sequencing data
- Neutralize rRNA and/or globin mRNA using a single pipetting step – no need for additional cleanup steps
- Ultra-plex (UPX) library construction to simplify low-input and single-cell analysis
- Streamlined workflows – for example, our gel-free workflow for miRNA library preparation – for fast and reproducible NGS library preparation

Bioinformatics solutions

- CLC Genomics Workbench enables comprehensive analysis and visualization of data from all major NGS platforms
- Ingenuity Pathway Analysis (IPA) provides integrative analysis and visualization capabilities that enable biologically meaningful interpretation of complex 'omics data with evidence-backed insights
- Ready-to-use workflows for QIAseq RNA-seq data analysis

RNA services

- Our Genomic Services labs combine industry-leading RNA expertise with QIAGEN's leading Sample to Insight solutions for a cutting-edge service offering
- Provides endless possibilities to discover, characterize and profile RNA for basic research or clinical applications



The QIAseq RNA portfolio at a glance

QIAseq Kits for RNA library preparation

	Single cell – 100 cells; 10–1000 pg RNA			1–10 ng RNA			10–1000 ng RNA			mRNA			lncRNA detection			miRNA / piRNA, including cell-free RNA			Exosomal RNA			FFPE / fragmented RNA			Targeted panel			Universal library			Unique Molecular Indices (UMIs)			QIAseq library prep (UPX)			QIAseq Beads			Sample Index included (I) or extra (Ex)			Species			Illumina® (IL) / Thermo-Fisher® (TF)			Most common applications		
	Input sample and amount			Target RNA						Library type			Unique Molecular Index			Included with library lot																																			
QIAseq FastSelect RNA Removal Kits	n/a	●	●	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Human	Mouse	Rat	Custom	n/a	Neutralizes unwanted RNA, compatible with various RNA-seq library preparation workflows																											
QIAseq Stranded mRNA Select Kits		●*	●	●							●			●	I	Any	IL	mRNA enrichment for gene expression and isoform detection																																	
QIAseq Stranded Total RNA Library Kits		●†	●	●	●			●	●		●			●	I	Any	IL	Use rRNA/globin depleted RNA for gene/lncRNA expression, RNA isoforms, SNVs. Compatible with meta-transcriptomics.																																	
QIAseq UPX 3' Transcriptome Kits	●			●							●	●	●	●	Ex	Human	Mouse	Monkey	IL	High-throughput transcriptome-wide gene expression																															
QIAseq UPX 3' Targeted RNA Panels	●			●							●		●	●	●	Ex	Human	Mouse	IL	High-throughput targeted gene expression																															
QIAseq Targeted RNA Panels		●	●	●	●			●	●	●		●		●	Ex	Human	Mouse	IL/TF	Gene expression of mRNA/lncRNA																																
QIAseq Targeted RNAscan Panels			●	●					●	●		●		●	Ex	Human		IL/TF	Fusion gene analysis																																
QIAseq Immune Repertoire RNA Library Kits (TCR Panel)			●	●						●		●		●	Ex	Human	Mouse	IL	Quantification and identification of T-cell receptor CDR3 region for clonotype determination																																
QIAseq FX Single Cell RNA Library Kits	●			●							●				I	Any	IL	Gene expression, RNA isoform detection																																	
QIAseq miRNA Library Kits		●	●			●	●				●	●		●	Ex	Any	IL/TF	Identification and quantification of miRNA, piRNA and other small RNAs																																	

* 1–10 ng of enriched mRNA; usually achieved by starting with 100 ng of total RNA and using mRNA enrichment protocol included with the kit.

† 1–10 ng of depleted RNA; usually achieved by starting with 100 ng of total RNA and depleting ribosomal RNA and globin RNA (for applications from blood).

Visit **www.qiagen.com/ExploreRNA** and launch your own exploration into the RNA universe!

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 www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

Trademarks: QIAGEN®, QIAamp®, QIAcube®, QIAgility®, QIAseq®, QIAAsymphony®, QIAxcel®, QIAxpert®, AllPrep®, GeneGlobe®, Ingenuity®, IPA®, LNA®, miRCURY®, miRNeasy®, QuantiNova®, QuantiTect®, RNeasy®, Rotor-Gene®, RT², RT² Profiler®, Sample to Insight® (QIAGEN Group); Illumina® (Illumina, Inc.); PAXgene® (PreAnalytiX GmbH); SYBR® (Life Technologies Corp.); Thermo Fisher® (Thermo Fisher Scientific or its subsidiaries). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law. PROM-11829-004 © 2019 QIAGEN, all rights reserved.

Ordering **www.qiagen.com/shop** | Technical Support **support.qiagen.com** | Website **www.qiagen.com**