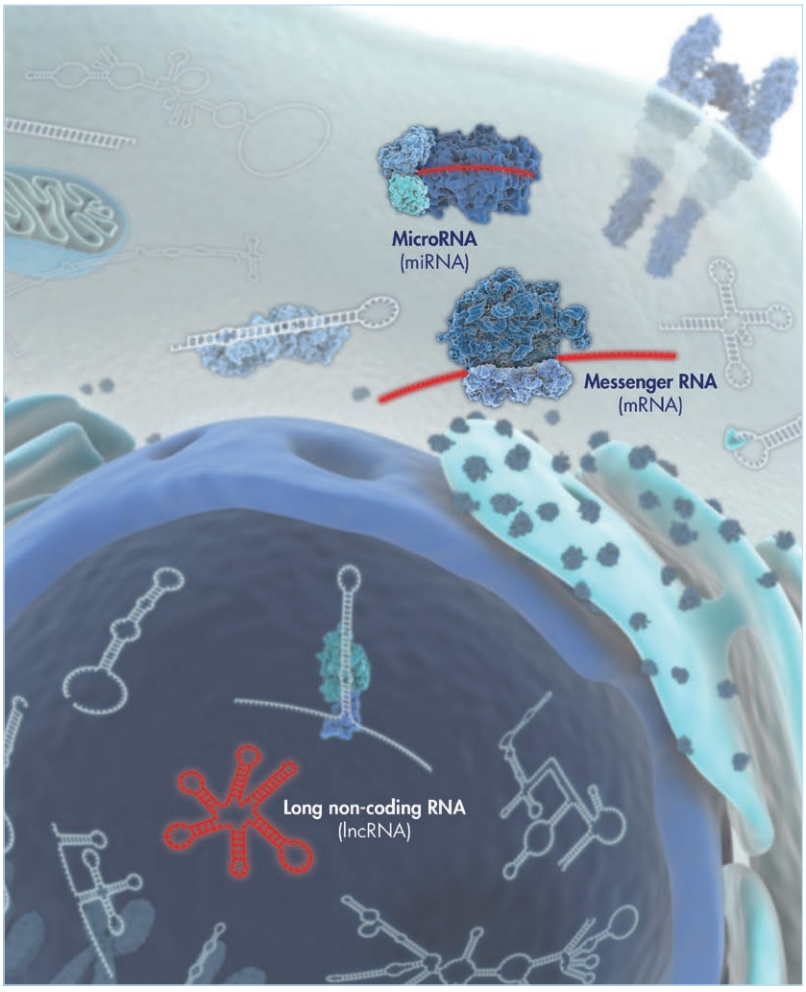
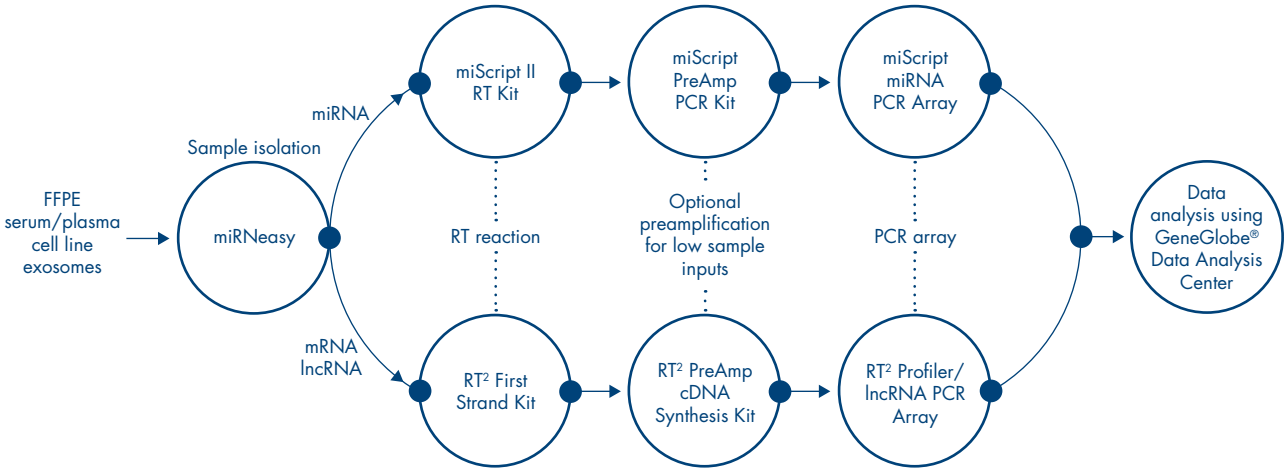
Total RNA Discovery

Simultaneously profile mRNA, miRNA and lncRNA using a simple, complete workflow



Introducing QIAGEN Total RNA Discovery with RT² Profiler and miScript® miRNA PCR Arrays

The study of RNA has evolved from the simplicity of the central dogma of molecular biology. There are now multiple known noncoding RNA species that directly regulate gene expression. To truly understand gene expression, exploring regulatory RNA, such as miRNA and lncRNA, is key. Our unified workflow, combining RT² and miScript systems, can be used to simultaneously quantify all three species. With QIAGEN Total RNA Discovery, you won't miss a molecular signature or biomarker.



Get more results from less sample using miRNeasy

Purification of high-quality total RNA, including mRNA, miRNA and lncRNA, is a prerequisite for successful RNA quantification experiments. Choose miRNeasy Kits from total RNA purification from cells, tissues, FFPE tissues and all biofluids including serum, plasma, CSF, urine and cell culture media.

- **miRNeasy FFPE:** The miRNeasy FFPE Kit provides special lysis and incubation conditions to reverse formalin crosslinking of RNA and efficiently purify RNA while avoiding further RNA degradation.
- **miRNeasy Serum/Plasma:** The miRNeasy Serum/Plasma Kit enables total RNA purification from human and animal serum, plasma or other biofluids.

Benefits of real-time PCR for RNA quantification and verification

qPCR remains the gold standard for quantification of RNA. qPCR provides flexibility and speed for time-critical assays. For NGS users, verify and focus your results using our qPCR systems for both annotated and novel mRNA, miRNA and lncRNA.

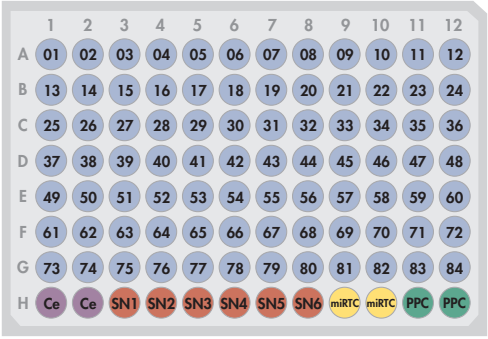
- **Sensitivity:** Chemistry and assays designed to efficiently detect and quantify even the rarest target.
- **Specificity:** Our proprietary algorithms and bench-verification assure on-target amplification from a single assay to a full array.
- **Dynamic range:** Whether you have unlimited or precious amounts of total RNA, robust or rare targets, one assay or thousands, our tailored sample to insight workflows enable detection across the entire spectrum.

Why Total RNA Discovery using QIAGEN PCR Arrays?

- **Content:** Unmatched catalog of expertly curated assays in ready-to-use qPCR plates for targeting pathways, diseases and application-specific targets in mRNA, lncRNA and miRNA.
- **Controls:** With integrated sample isolation, reverse transcription and qPCR controls, you will be able to monitor for any variables that affect qPCR performance and may compromise data analysis.
- **Custom:** QIAGEN offers unparalleled capabilites to customize arrays to fit your needs. Custom arrays can be designed for both mRNA and lncRNA together, as well as customized arrays for your miRNA of interest.

Available miScript miRNA PCR Arrays

Array	Species
Complete miRNome	Human, mouse, rat, dog, rhesus macaque
miFinder	Human, mouse, rat, dog, rhesus macaque
Brain Cancer	Human, mouse, rat
Breast Cancer	Human, mouse, rat
Cancer PathwayFinder	Human, mouse, rat
Cell Differentiation & Development	Human, mouse, rat
Immunopathology	Human, mouse, rat
Inflammatory Response & Autoimmunity	Human, mouse, rat
Neurological Development & Disease	Human, mouse, rat
Ovarian Cancer	Human, mouse, rat
Serum & Plasma	Human, mouse, rat
Custom Array	Human, mouse, rat, dog, rhesus macaque, and other species



miScript miRNA PCR Array layout. miScript miRNA PCR Arrays provide miScript Primer Assays for 84 miRNAs, as well as controls for data normalization, reverse transcription and PCR. Data normalization controls include 6 miScript PCR Controls and a primer assay for *C. elegans* miR-39. The cel-miR-39 assay detects the miRNeasy Serum/Plasma Spike-in Control, which can be added during bioflu-id RNA isolation to monitor for differential RNA recovery. Rotor-Disc® 100 and 384-well formats are also available.

miScript miRNA PCR Arrays

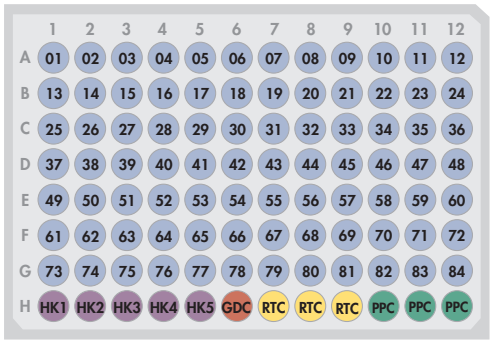
- **Content:** The most comprehensive catalog of assays and arrays available for all annotated species.
- **Targeted arrays:** miScript targeted arrays offer cataloged options focused on disease- and pathway-specific miRNA for human, mouse, dog, rhesus macaque and rat.
- **miRNome:** miScript offers the miScript miRNome for profiling of over 2400 miRNA, offering specificity for each transcript, and driving biomarker discovery with novel data.
- **Customizable:** miScript arrays are fully customizable to fit your personalized needs. Simply build your list and receive the array.

RT² Profiler/lncRNA PCR Arrays

RT² Profiler and RT² lncRNA PCR Arrays are highly standardized, reliable and sensitive gene expression profiling tools for analyzing focused panels of genes involved in signal transduction, biological processes or disease research pathways, using real-time PCR.

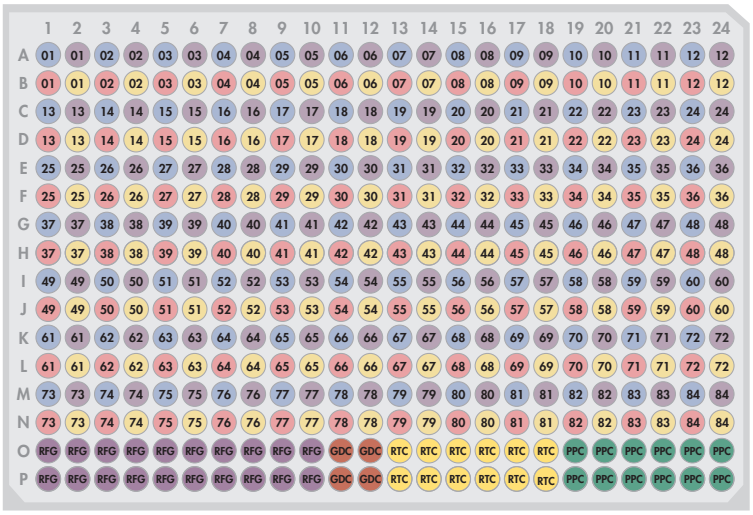
- **Simplicity:** The simplicity of RT² Profiler PCR Arrays makes routine expression profiling practical in any research laboratory with a real-time instrument.
- **Performance:** RT² Profiler PCR Arrays have the sensitivity, reproducibility, specificity and reliability to accurately profile multiple genes simultaneously in 96- and 384-well plate, 100-well disc, and 96 x 96 chip formats.
- **Relevance:** RT² Profiler PCR Arrays focus on profiling the genes relevant to the pathways or disease states important to your research.

Catalog RT² PCR Array plate layout for 96- and 384- well qPCR instruments



- Gene-specific assays
- Housekeeping genes
- Genomic DNA control
- Reverse transcription controls
- Positive PCR controls

Each well in an RT² Profiler PCR Array measures the expression of a gene related to a pathway or disease state. A typical 96-well and 384-well format is shown. This is also available in a 100-well disc for the Rotor-Gene® Q, and 48 x 48 or 96 x 96 chip format for the Fluidigm Biomark.



Reference genes | Genomic DNA controls | Reverse transcription controls | Positive PCR controls

Popular RT² Profiler/lncRNA PCR Arrays

- Angiogenesis
- Apoptosis
- Autophagy
- Breast Cancer and Estrogen Receptor Signaling
- Cancer PathwayFinder
- Cell Cycle
- Chemokines and Receptors
- Diabetes
- DNA Damage Signaling Pathway
- Drug Metabolism
- EGF/PDGF Signaling Pathway
- Epigenetic Chromatin Modification Enzymes
- Epithelial to Mesenchymal Transition
- Extracellular Matrix and Adhesion Molecules
- GPCR Signaling Pathway
- Growth Factors
- Heat Shock Proteins
- Hedgehog Signaling Pathway
- Hematopoietic Stem Cells & Hematopoesis
- Hepatoxicity
- Inflammatory Cytokines and Receptors
- Innate and Adaptive Immune Response
- Interferon α,β Response
- JAK/STAT Signaling
- MAP Kinase Signaling Pathway
- Mitochondrial Energy Metabolism
- NFκB Signaling Pathway
- Nephrotoxicity
- Oxidative Stress and Antioxidant Defense
- p53 Signaling Pathway
- Wnt Signaling Pathway

See how you can benefit from Total RNA Discovery at **www.qiagen.com/RNAdiscovery**.

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