

# miRCURY LNA™ Universal RT microRNA PCR Toxicology Focus microRNA PCR Panel

PCR panels containing miRCURY LNA™ Universal RT microRNA PCR assays for all relevant toxicology-related microRNAs. Panels are available in ready-to-use 96 and 384 well plates – just add cDNA and PCR master mix.

## At a glance

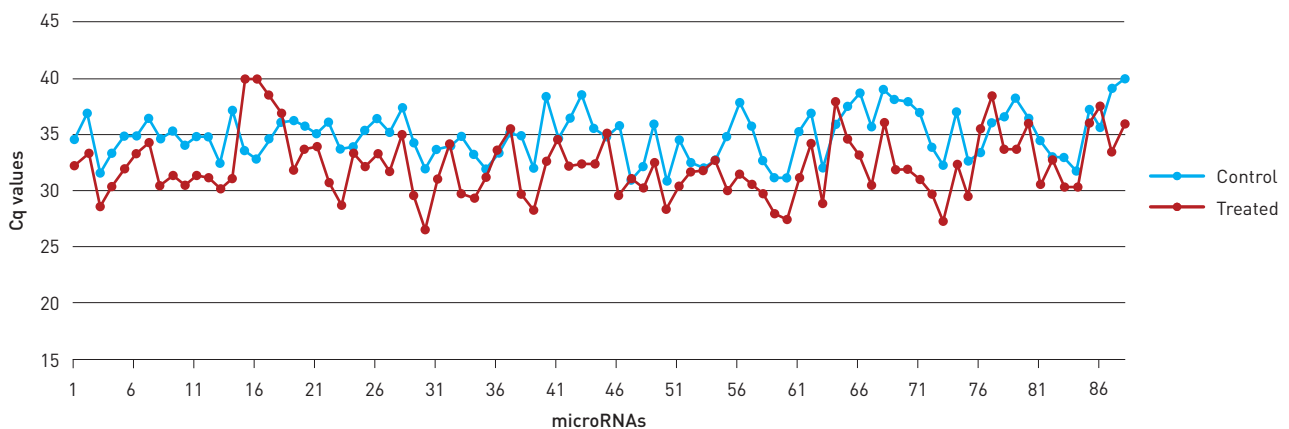
- All relevant toxicology-related microRNAs in one PCR Panel
- Available for human, rat, dog and monkey biofluid samples
- microRNAs selected using in-house data from thousands of biofluid samples and from peer-reviewed publications
- Superior Sensitivity and specificity for accurate microRNA profiling
- Robust, wet-lab validated assays optimal for challenging applications
- Fast and easy - ready-to-use format with a full profile in less than 3 hours
- High compatibility – 96 and 384 well plates compatible with most real-time PCR instruments

## Coverage

Exiqon's Toxicology Focus microRNA PCR Panels contain all relevant toxicology-related microRNAs in one PCR Panel. The panels are available in 96-well or 384-well plates compatible with most PCR instruments.

Panels with species specific assays are available for Homo sapiens (hsa), Rattus norvegicus (rno), Macaca Mulatta (mml) and Canis Familiaris (cfa). Each panel also contains assays for synthetic RNA spike-in controls and interplate calibrators. In combination with highly optimized qPCR reagents, the panels offer a complete and accessible solution for accurate microRNA profiling in urine and other relevant biofluids.

**Figure 1. Urine microRNA profiling for identification of toxicology markers.** microRNA profiles from rat urine representing a control sample and a sample after drug treatment.



## MicroRNAs as organ damage biomarkers

MicroRNAs in biofluids, such as serum/plasma, urine and cerebrospinal fluid, have received much attention for their potential as minimally invasive biomarkers for a wide range of diseases and conditions. They have been found to be extraordinarily stable in commonly used clinical samples such as urine, serum and plasma.

Several recent studies have shown that tissue injury leads to the release of microRNAs into the surrounding extra-cellular space. Depending on the nature of the injury, increased amounts of tissue-specific microRNAs or other microRNAs can be detected in the biofluids of the individual (figure 1).

The well-defined tissue-specific expression patterns of some microRNAs, their presence in biofluids and their conservation across species, make these microRNAs prime candidates for use as biomarkers for organ injury and toxicity.

Exiqon's miRCURY LNA™ Universal RT microRNA PCR system offers the sensitivity and specificity needed for microRNA profiling from biofluids - 20 µL serum/plasma is sufficient for profiling on a PCR plate. This makes the system ideally suited for use in diagnostics (Figure 2).

### Focus on the microRNAs relevant to your project

The Toxicology Focus microRNA PCR Panels include an optimized set of microRNA PCR assays designed to investigate signs of organ damage in biofluids from human, rat, monkey and dog.

Selected assays include:

- Organ-specific damage markers
- Tissue-specific and/or enriched microRNAs
- microRNAs that are highly expressed in many tissues

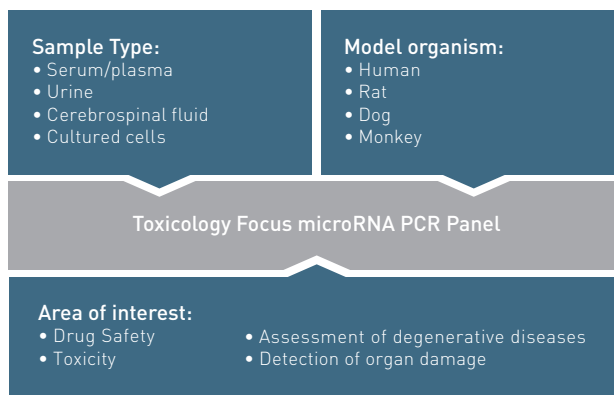
A considerable part of the selected assays were extracted from Exiqon's sample database which contains microRNA expression data from thousands of biofluid samples. This ensures that scientists studying organ damage will have access to all the relevant microRNAs.

### Comprehensive offering

Exiqon offers a complete solution for microRNA profiling in biofluids including a specialized RNA isolation kit and detailed recommendations and guidelines. Exiqon Services offer a uniquely comprehensive microRNA isolation and profiling service from initial consultation to customized data-analysis. Our highly experienced scientists and technicians specialize in microRNA profiling from challenging clinical samples such as biofluids.

For more information regarding microRNA profiling in biofluids and to download free guidelines, please visit [www.exiqon.com/biofluids](http://www.exiqon.com/biofluids)

**Figure 2. Focus on the microRNAs that are relevant to your project.** Examples of applications of the Toxicology Focus microRNA PCR Panel.



### Ordering information:

Panels	Product description	Product no.
Toxicology Focus microRNA PCR Panel, Human, V3	4 panels in 4 x 96 well plates or 8 panels in 2 x 384 well plates with LNA™ microRNA primer sets, reference candidates and spike-ins*	203851-203856
Toxicology Focus microRNA PCR Panel, Rat, V3	4 panels in 4 x 96 well plates or 8 panels in 2 x 384 well plates with LNA™ microRNA primer sets, reference candidates and spike-ins*	203857-203862
Toxicology Focus microRNA PCR Panel, Dog, V3	4 panels in 4 x 96 well plates or 8 panels in 2 x 384 well plates with LNA™ microRNA primer sets, reference candidates and spike-ins*	203863-203868
Toxicology Focus microRNA PCR Panel, Monkey, V3	4 panels in 4 x 96 well plates or 8 panels in 2 x 384 well plates with LNA™ microRNA primer sets, reference candidates and spike-ins*	203869-203874

\* Each panel product is available in different types of plates for specific real-time PCR instrument compatibility.

For further details and updated product information, please visit [www.exiqon.com/toxicology-mirna-pcr](http://www.exiqon.com/toxicology-mirna-pcr)

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