

miRCURY LNA™ miRNA Focus PCR Panels

Rat Fibrosis Product Data Sheet

Cat. no. 339325 YARN-217Z

For mature miRNA expression profiling using real-time PCR

Format	Suitable real-time cyclers	Plate	Cat. no.
A	Applied Biosystems® models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well block); Bio-Rad® models iCycler®, iQ™5, MyiQ™, MyiQ2; Bio-Rad/MJ Research Chromo4™; Eppendorf® MasterCycler® ep realplex models 2, 2s, 4, 4s; Stratagene® models Mx3005P®, Mx3000P®; Takara: TP-800	96-well	YARN-217ZA
C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)	96-well	YARN-217ZC
D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®	96-well	YARN-217ZD
E	Applied Biosystems® models 7900HT (384-well block), ViiA™ 7 (384-well block); Bio-Rad CFX384™	384-well	YARN-217ZE
F	Roche® LightCycler® 480 (96-well block)	96-well	YARN-217ZF
G	Roche® LightCycler® 480 (384-well block)	384-well	YARN-217ZG

Description

The Rat Fibrosis miRCURY LNA™ miRNA Focus PCR Panel profiles the expression of 84 miRNAs known to play a role in fibrosis. During tissue remodeling that occurs as part of wound healing, apoptosis removes myofibroblasts, and the deposited extracellular matrix (ECM) is remodeled to resemble the original tissue. Fibrosis occurs when inappropriate tissue remodeling results in excess ECM deposition due to inappropriate survival of myofibroblasts or lack of ECM proteolytic degradation. The inflammation and enhanced TGFβ signaling often present in fibrotic tissues causes cells to differentiate into myofibroblasts via epithelial-to-mesenchymal transition (EMT). miRNAs may play a role in conducting the pathogenesis of fibrosis by modulating the expression of genes involved in ECM remodeling and cell adhesion, inflammation, angiogenesis, TGFβ/CTGF signaling, and EMT. This array includes miRNAs that are differentially expressed during fibrosis and are known or predicted to modulate the expression of pro- and anti-fibrotic genes common to different fibrotic disorders such as systemic sclerosis, as well as liver, cardiac, kidney, and idiopathic pulmonary fibrosis. The profiling results from this array may yield insights into the molecular mechanisms behind the pathogenesis of fibrosis. A set of controls present on each array enables data analysis using the $\Delta\Delta CT$ method of relative quantification, assessment of reverse transcription performance, and assessment of PCR performance. Using SYBR Green real-time PCR, the expression of a focused panel of miRNAs involved in fibrosis can be easily and reliably analyzed with this miRCURY LNA™ miRNA Focus PCR Panel.

For further details, consult the *miRCURY LNA™ miRNA Focus PCR Panels Handbook*.

Array Layout

	1	2	3	4	5	6	7	8	9	10	11	12
A	rno-let-7d-5p	rno-miR-101a-3p	rno-miR-107-3p	rno-miR-10a-5p	rno-miR-122-5p	rno-miR-124-3p	rno-miR-125b-5p	rno-miR-126a-3p	rno-miR-128-3p	rno-miR-129-5p	rno-miR-132-3p	rno-miR-133a-3p
B	rno-miR-136-5p	rno-miR-138-5p	rno-miR-141-3p	rno-miR-142-3p	rno-miR-143-3p	rno-miR-144-3p	rno-miR-145-5p	rno-miR-146a-5p	rno-miR-146b-5p	rno-miR-147	rno-miR-150-5p	rno-miR-152-3p
C	rno-miR-15b-5p	rno-miR-16-5p	rno-miR-17-5p	rno-miR-181b-5p	rno-miR-182	rno-miR-186-5p	rno-miR-18a-5p	rno-miR-192-5p	rno-miR-194-5p	rno-miR-195-5p	rno-miR-196a-5p	rno-miR-199a-5p
D	rno-miR-19a-3p	rno-miR-19b-3p	rno-miR-200a-3p	rno-miR-200b-3p	rno-miR-203a-3p	rno-miR-204-5p	rno-miR-205	rno-miR-20a-5p	rno-miR-21-5p	rno-miR-216a-5p	rno-miR-222-3p	rno-miR-23a-3p
E	rno-miR-24-3p	rno-miR-25-3p	rno-miR-26a-5p	rno-miR-26b-5p	rno-miR-27a-3p	rno-miR-27b-3p	rno-miR-291a-3p	rno-miR-298-5p	rno-miR-29a-3p	rno-miR-29b-3p	rno-miR-29c-3p	rno-miR-30a-5p
F	rno-miR-31a-5p	rno-miR-322-5p	rno-miR-324-5p	rno-miR-32-5p	rno-miR-328a-3p	rno-miR-330-3p	rno-miR-335	rno-miR-338-5p	rno-miR-34a-5p	rno-miR-365-3p	rno-miR-375-3p	rno-miR-378a-3p
G	rno-miR-382-5p	rno-miR-384-5p	rno-miR-410-3p	rno-miR-449a-5p	rno-miR-451-5p	rno-miR-495	rno-miR-497-5p	rno-miR-7a-5p	rno-miR-874-3p	rno-miR-93-5p	rno-miR-98-5p	rno-miR-99a-5p
H	cel-miR-39-3p	cel-miR-39-3p	U6 snRNA (V2)	5S rRNA	RNU5G	RNU1A1	UniSp2	UniSp4	UniSp5	UniSp6	UniSp3	UniSp3

miRNA Table

Well	miRNA ID	Accession #	Assay Catalog #	Well	miRNA ID	Accession #	Assay Catalog #
A01	rno-let-7d-5p	MIMAT0000065	YP00204124	E01	rno-miR-24-3p	MIMAT0000080	YP00204260
A02	rno-miR-101a-3p	MIMAT0000099	YP00204786	E02	rno-miR-25-3p	MIMAT0000081	YP00204361
A03	rno-miR-107-3p	MIMAT0000104	YP00204468	E03	rno-miR-26a-5p	MIMAT0000082	YP00206023
A04	rno-miR-10a-5p	MIMAT0000253	YP00204778	E04	rno-miR-26b-5p	MIMAT0000083	YP00204172
A05	rno-miR-122-5p	MIMAT0000421	YP00205664	E05	rno-miR-27a-3p	MIMAT0000084	YP00206038
A06	rno-miR-124-3p	MIMAT0000134	YP02119832	E06	rno-miR-27b-3p	MIMAT0000419	YP00205915
A07	rno-miR-125b-5p	MIMAT0000423	YP00205713	E07	rno-miR-291a-3p	MIMAT0000895	YP00206041
A08	rno-miR-126a-3p	MIMAT0000445	YP00204227	E08	rno-miR-298-5p	MIMAT0000376	YP00205092
A09	rno-miR-128-3p	MIMAT0000424	YP00205995	E09	rno-miR-29a-3p	MIMAT0000086	YP00204698
A10	rno-miR-129-5p	MIMAT0000242	YP00204534	E10	rno-miR-29b-3p	MIMAT0000100	YP00204679
A11	rno-miR-132-3p	MIMAT0000426	YP00206035	E11	rno-miR-29c-3p	MIMAT0000681	YP00204729
A12	rno-miR-133a-3p	MIMAT0000427	YP00204788	E12	rno-miR-30a-5p	MIMAT0000087	YP00205695
B01	rno-miR-136-5p	MIMAT0000448	YP00204779	F01	rno-miR-31a-5p	MIMAT0000538	YP00205159
B02	rno-miR-138-5p	MIMAT0000430	YP00206078	F02	rno-miR-322-5p	MIMAT0000548	YP00205182
B03	rno-miR-141-3p	MIMAT0000432	YP00204504	F03	rno-miR-324-5p	MIMAT0000555	YP02119698
B04	rno-miR-142-3p	MIMAT0000434	YP00204291	F04	rno-miR-32-5p	MIMAT0000090	YP00204792
B05	rno-miR-143-3p	MIMAT0000849	YP00205106	F05	rno-miR-328a-3p	MIMAT0000752	YP00204364
B06	rno-miR-144-3p	MIMAT0000436	YP00204754	F06	rno-miR-330-3p	MIMAT0000569	YP00205419
B07	rno-miR-145-5p	MIMAT0000437	YP00204483	F07	rno-miR-335	MIMAT0000765	YP02119293
B08	rno-miR-146a-5p	MIMAT0000449	YP00204688	F08	rno-miR-338-5p	MIMAT0004701	YP00204114
B09	rno-miR-146b-5p	MIMAT0005595	YP00205107	F09	rno-miR-34a-5p	MIMAT0000255	YP00204486
B10	rno-miR-147	MIMAT0004857	YP02119770	F10	rno-miR-365-3p	MIMAT0000710	YP00204622
B11	rno-miR-150-5p	MIMAT0000451	YP00204660	F11	rno-miR-375-3p	MIMAT0000728	YP00204362
B12	rno-miR-152-3p	MIMAT0000438	YP00204294	F12	rno-miR-378a-3p	MIMAT0003151	YP00204179
C01	rno-miR-15b-5p	MIMAT0000417	YP00204243	G01	rno-miR-382-5p	MIMAT0000737	YP00204169
C02	rno-miR-16-5p	MIMAT0000069	YP00205702	G02	rno-miR-384-5p	MIMAT0004745	YP00205189
C03	rno-miR-17-5p	MIMAT0000070	YP02119304	G03	rno-miR-410-3p	MIMAT0002171	YP00204042
C04	rno-miR-181b-5p	MIMAT0000257	YP00204530	G04	rno-miR-449a-5p	MIMAT0001541	YP00204481
C05	rno-miR-182	MIMAT0000211	YP00205089	G05	rno-miR-451-5p	MIMAT0001631	YP02119305
C06	rno-miR-186-5p	MIMAT0000456	YP00206053	G06	rno-miR-495	MIMAT0002817	YP00206015
C07	rno-miR-18a-5p	MIMAT0000072	YP00204207	G07	rno-miR-497-5p	MIMAT0003453	YP00205164
C08	rno-miR-192-5p	MIMAT0000222	YP00204099	G08	rno-miR-7a-5p	MIMAT0000677	YP02119694
C09	rno-miR-194-5p	MIMAT0000460	YP00204080	G09	rno-miR-874-3p	MIMAT0004911	YP00204761
C10	rno-miR-195-5p	MIMAT0000461	YP00205869	G10	rno-miR-93-5p	MIMAT0000093	YP00204715
C11	rno-miR-196a-5p	MIMAT0000226	YP00204386	G11	rno-miR-98-5p	MIMAT0000096	YP00204640
C12	rno-miR-199a-5p	MIMAT0000231	YP00204494	G12	rno-miR-99a-5p	MIMAT0000097	YP00204521
D01	rno-miR-19a-3p	MIMAT0000073	YP00205862	H01	cel-miR-39-3p	MIMAT0000010	YP00203952
D02	rno-miR-19b-3p	MIMAT0000074	YP00204450	H02	cel-miR-39-3p	MIMAT0000010	YP00203952
D03	rno-miR-200a-3p	MIMAT0000682	YP00204707	H03	U6 snRNA (v2)	N/A	YP02119464
D04	rno-miR-200b-3p	MIMAT0000875	YP00205111	H04	5S rRNA	N/A	YP00203906
D05	rno-miR-203a-3p	MIMAT0000264	YP00205914	H05	RNU5G	N/A	YP00203908
D06	rno-miR-204-5p	MIMAT0000265	YP00206072	H06	RNU1A1	N/A	YP00203909
D07	rno-miR-205	MIMAT0000878	YP00205958	H07	UniSp2	N/A	YP00203950
D08	rno-miR-20a-5p	MIMAT0000075	YP00204292	H08	UniSp4	N/A	YP00203953
D09	rno-miR-21-5p	MIMAT0000076	YP00204230	H09	UniSp5	N/A	YP00203955
D10	rno-miR-216a-5p	MIMAT0000273	YP00204167	H10	UniSp6	N/A	YP00203954
D11	rno-miR-222-3p	MIMAT0000279	YP00204551	H11	UniSP3	N/A	YP02119288
D12	rno-miR-23a-3p	MIMAT0000078	YP00204772	H12	UniSP3	N/A	YP02119288

Functional Groupings

Pro-Fibrotic: rno-miR-101a-3p,rno-miR-142-3p,rno-miR-145-5p,rno-miR-147,rno-miR-192-5p,rno-miR-205,rno-miR-21-5p,rno-miR-216a-5p,rno-miR-27a-3p,rno-miR-27b-3p,rno-miR-30a-5p,rno-miR-32-5p,rno-miR-338-5p,rno-miR-34a-5p,rno-miR-382-5p,rno-miR-99a-5p.

Anti-Fibrotic: rno-let-7d-5p,rno-miR-107-3p,rno-miR-132-3p,rno-miR-133a-3p,rno-miR-141-3p,rno-miR-15b-5p,rno-miR-16-5p,rno-miR-17-5p,rno-miR-18a-5p,rno-miR-194-5p,rno-miR-19a-3p,rno-miR-19b-3p,rno-miR-200a-3p,rno-miR-200b-3p,rno-miR-204-5p,rno-miR-20a-5p,rno-miR-26a-5p,rno-miR-26b-5p,rno-miR-29b-3p,rno-miR-335,rno-miR-449a-5p.

Extracellular Matrix & Cell Adhesion: rno-miR-10a-5p,rno-miR-138-5p,rno-miR-143-3p,rno-miR-145-5p,rno-miR-152-3p,rno-miR-16-5p,rno-miR-186-5p,rno-miR-196a-5p,rno-miR-199a-5p,rno-miR-203a-3p,rno-miR-204-5p,rno-miR-21-5p,rno-miR-222-3p,rno-miR-25-3p,rno-miR-27a-3p,rno-miR-27b-3p,rno-miR-291a-3p,rno-miR-29a-3p,rno-miR-29b-3p,rno-miR-29c-3p,rno-miR-30a-5p,rno-miR-449a-5p,rno-miR-451-5p,rno-miR-7a-5p,rno-miR-93-5p.

Inflammation: rno-let-7d-5p,rno-miR-122-5p,rno-miR-129-5p,rno-miR-142-3p,rno-miR-146a-5p,rno-miR-181b-5p,rno-miR-199a-5p,rno-miR-204-5p,rno-miR-21-5p,rno-miR-384-5p,rno-miR-410-3p.

Angiogenesis: rno-let-7d-5p,rno-miR-107-3p,rno-miR-126a-3p,rno-miR-145-5p,rno-miR-150-5p,rno-miR-15b-5p,rno-miR-16-5p,rno-miR-17-5p,rno-miR-195-5p,rno-miR-200b-3p,rno-miR-20a-5p,rno-miR-29b-3p,rno-miR-31a-5p,rno-miR-322-5p,rno-miR-34a-5p,rno-miR-375-3p,rno-miR-378a-3p.

Signal Transduction & Transcriptional Regulation: rno-miR-101a-3p,rno-miR-122-5p,rno-miR-124-3p,rno-miR-125b-5p,rno-miR-133a-3p,rno-miR-141-3p,rno-miR-144-3p,rno-miR-145-5p,rno-miR-146a-5p,rno-miR-146b-5p,rno-miR-15b-5p,rno-miR-16-5p,rno-miR-17-5p,rno-miR-182,rno-miR-18a-5p,rno-miR-192-5p,rno-miR-195-5p,rno-miR-19a-3p,rno-miR-19b-3p,rno-miR-203a-3p,rno-miR-204-5p,rno-miR-20a-5p,rno-miR-21-5p,rno-miR-23a-3p,rno-miR-24-3p,rno-miR-26a-5p,rno-miR-27a-3p,rno-miR-29a-3p,rno-miR-29b-3p,rno-miR-29c-3p,rno-miR-30a-5p,rno-miR-324-5p,rno-miR-328a-3p,rno-miR-34a-5p,rno-miR-378a-3p,rno-miR-449a-5p,rno-miR-451-5p,rno-miR-495,rno-miR-497-5p,rno-miR-98-5p,rno-miR-99a-5p.

Epithelial-to-Mesenchymal Transition (EMT): rno-let-7d-5p,rno-miR-107-3p,rno-miR-128-3p,rno-miR-136-5p,rno-miR-199a-5p,rno-miR-200a-3p,rno-miR-200b-3p,rno-miR-298-5p,rno-miR-29a-3p,rno-miR-29b-3p,rno-miR-29c-3p,rno-miR-330-3p,rno-miR-365-3p,rno-miR-382-5p,rno-miR-874-3p.

Ordering Information

Product	Contents	Cat. no.
miRCURY LNA miRNA Focus PCR Panels	miRCURY LNA miRNA PCR Panels for application-based miRNome profiling, available in 96-well or 384-well format; for SYBR® Green-based detection	339325
miRCURY LNA miRNA miRNome PCR Panels	miRCURY LNA miRNA PCR Panels for PCR-based miRNome profiling, available in 384-well format; for SYBR® Green-based detection	339322
miRCURY LNA miRNA QC PCR Panel	miRCURY LNA miRNA PCR Panel of quality control assays, available in 96-well or 384-well format; for SYBR® Green-based detection	339331
miRCURY LNA miRNA Custom PCR Panels	8 identical, ready-to-use 96- or 384-well plates; each well contains primers sufficient for one 10 µl reaction; for SYBR® Green-based detection	339330
miRCURY LNA Custom PCR Panel Additional Plate	Additional miRCURY LNA Custom PCR Panel plates; set of 4 plates; only available in addition to the base plates ordered through the core product (cat. no. 339330)	339332
miRCURY LNA miRNA PCR Assays	Contains forward and reverse primers for 200 SYBR® Green-based, real-time qPCR reactions, 166 EvaGreen-based digital PCR reactions for Nanoplate 8.5k or 50 EvaGreen-based digital PCR reactions for Nanoplate 26k	339306
miRCURY LNA miRNA Probe PCR Assays	Complete premixed assays containing LNA-enhanced target-specific forward primer and probe. For 200 reactions.	339350
miRCURY LNA miRNA Custom Probe PCR Assays	Custom-designed, target-specific forward primer and probe for any user-defined miRNA target. Complete premixed assay for 200 reactions.	339351

Related Products

Product	Contents	Cat. no.
miRCURY LNA RT Kit	For 8–64 cDNA synthesis reactions: 5x RT SYBR Green Reaction Buffer, 5x RT Probe Reaction Buffer, 10x RT Enzyme Mix, UniSp6, RNA Spike-in template, RNase-Free Water	339340
RNA Spike-In Kit, For RT	Contains the UniSp2, UniSp4, and UniSp5 RNA Spike-in Template Mix and the cel-miR-39-3p RNA Spike-in Template	339390
miRCURY LNA SYBR® Green PCR Kits (200)	For 200 reactions: 2X miRCURY SYBR Green Master Mix, RNase-Free Water	339345
miRCURY LNA SYBR® Green PCR Kits (600)	For 600 reactions: 2X miRCURY SYBR Green Master Mix, RNase-Free Water	339346
miRCURY LNA SYBR® Green PCR Kits (4000)	For 4000 reactions: 2X miRCURY SYBR Green Master Mix, RNase-Free Water	339347
miRCURY LNA Probe PCR Kit (200)	For 200 reactions: 2X QuantiNova Probe Master Mix, 10X miRCURY Probe Univ. Primer, Rox Reference Dye, RNase-Free Water	339371
miRCURY LNA Probe PCR Kit (800)	For 800 reactions: 2X QuantiNova Probe Master Mix, 10X miRCURY Probe Univ. Primer, Rox Reference Dye, RNase-Free Water	339372
miRCURY LNA Probe PCR Kit (4000)	For 4000 reactions: 2X QuantiNova Probe Master Mix, 10X miRCURY Probe Univ. Primer, Rox Reference Dye, RNase-Free Water	339373
miRCURY LNA miRNA PCR Starter Kit	Two miRCURY LNA PCR Assays of your choice, spike-in control Assay (UniSp6), one candidate endogenous control assay (miR-103-3p) and all reagents for 20 reverse transcription reactions and 100 PCR amplifications; for SYBR® Green-based qPCR detection	339320

Important

The miRCURY LNA™ miRNA PCR Panels are Ready-to-Use and designed for optimal performance with the miRCURY LNA RT Kit and the miRCURY LNA SYBR® Green PCR Kit. The performance of the primer sets will be affected when used in combination with less than optimal reagents. Use the miRCURY LNA miRNA PCR Panel Handbook for experiment setup. RNA work requires specific handling and precautions should be taken to prevent RNase contamination and degradation of the RNA sample and reagents.

Shipping and storage

The Ready-to-Use miRCURY LNA miRNA PCR Panels are shipped at room temperature and can be stored at 4°C for at least 6 months. For long term storage, it is recommended to place the panels at -20°C. Under these conditions, the LNA PCR primers are stable for at least 6 months after receipt.

Intended use

miRCURY LNA miRNA PCR Assays are intended for molecular biology applications. This product is not intended for the diagnosis, prevention or treatment of a disease.

Safety information

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate safety data sheets (SDSs). These are available online in convenient and compact PDF format at www.qiagen.com/safety where you can find, view and print the SDS for each QIAGEN kit and kit component.

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®, Sample to Insight®, GeneGlobe®, LNA™ (QIAGEN Group), SYBR® (Life Technologies Corporation). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, are not to be considered unprotected by law. 1107212 05/2017 HB-2376-001 © 2017 QIAGEN, all rights reserved.
