

miRCURY LNA™ miRNA Focus PCR Panels

Rat Immunopathology Product Data Sheet

Cat. no. 339325 YARN-204Z

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-204ZA
C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)	96-well	YARN-204ZC
D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®	96-well	YARN-204ZD
E	Applied Biosystems® models 7900HT (384-well block), ViiA™ 7 (384-well block); Bio-Rad CFX384™	384-well	YARN-204ZE
F	Roche® LightCycler® 480 (96-well block)	96-well	YARN-204ZF
G	Roche® LightCycler® 480 (384-well block)	384-well	YARN-204ZG

Description

The Rat Immunopathology miRCURY LNA™ miRNA Focus PCR Panel profiles the expression of 84 miRNAs differentially expressed during normal and pathological responses by the immune system. This array provides immunology researchers with a convenient way to quickly analyze the miRNAs most relevant to the function of lymphocytes and other immune cells. The miRNAs have been carefully selected based on results published in peer-reviewed journals that suggest a correlation with inflammation, leukemia, lymphoma, autoimmune disorders, or other immune responses. Other miRNAs included on the array have been shown to functionally target specific transcripts encoding cytokines, other immunological regulatory proteins, and immune response signaling pathway components. The profiling results from this array can serve as a useful molecular marker for the study of normal and disease-associated immune responses. The results may also provide a deeper understanding of the molecular mechanisms regulating immunological gene expression by miRNA. A set of controls present on this 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-based real-time PCR, the expression of a focused panel of miRNAs related to immunopathology 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-7a-5p	rno-let-7c-5p	rno-let-7d-5p	rno-let-7e-5p	rno-let-7f-5p	rno-miR-103-3p	rno-miR-105	rno-miR-125a-5p	rno-miR-125b-5p	rno-miR-126a-3p	rno-miR-128-3p	rno-miR-129-5p
B	rno-miR-130a-3p	rno-miR-132-3p	rno-miR-134-5p	rno-miR-138-5p	rno-miR-140-5p	rno-miR-142-3p	rno-miR-142-5p	rno-miR-143-3p	rno-miR-145-5p	rno-miR-146a-5p	rno-miR-146b-5p	rno-miR-147
C	rno-miR-150-5p	rno-miR-152-3p	rno-miR-15b-5p	rno-miR-16-5p	rno-miR-17-5p	rno-miR-181a-5p	rno-miR-182	rno-miR-183-5p	rno-miR-184	rno-miR-185-5p	rno-miR-186-5p	rno-miR-18a-5p
D	rno-miR-191a-5p	rno-miR-194-5p	rno-miR-195-5p	rno-miR-196a-5p	rno-miR-19a-3p	rno-miR-19b-3p	rno-miR-200a-3p	rno-miR-203a-3p	rno-miR-205	rno-miR-206-3p	rno-miR-207	rno-miR-20a-5p
E	rno-miR-20b-5p	rno-miR-21-5p	rno-miR-210-3p	rno-miR-214-3p	rno-miR-223-3p	rno-miR-23b-3p	rno-miR-26a-5p	rno-miR-26b-5p	rno-miR-27a-3p	rno-miR-27b-3p	rno-miR-28-5p	rno-miR-296-3p
F	rno-miR-298-5p	rno-miR-299a-5p	rno-miR-29b-3p	rno-miR-29c-3p	rno-miR-30b-5p	rno-miR-30c-5p	rno-miR-30e-5p	rno-miR-31a-5p	rno-miR-320-3p	rno-miR-323-3p	rno-miR-325-5p	rno-miR-331-3p
G	rno-miR-34a-5p	rno-miR-34c-5p	rno-miR-363-3p	rno-miR-379-5p	rno-miR-383-5p	rno-miR-409a-3p	rno-miR-451-5p	rno-miR-493-3p	rno-miR-672-5p	rno-miR-9a-5p	rno-miR-98-5p	rno-miR-99b-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-7a-5p	MIMAT0000062	YP00205727	E01	rno-miR-20b-5p	MIMAT0001413	YP00204755
A02	rno-let-7c-5p	MIMAT0000064	YP00204767	E02	rno-miR-21-5p	MIMAT0000076	YP00204230
A03	rno-let-7d-5p	MIMAT0000065	YP00204124	E03	rno-miR-210-3p	MIMAT0000267	YP00204333
A04	rno-let-7e-5p	MIMAT0000066	YP00205711	E04	rno-miR-214-3p	MIMAT0000885	YP00205512
A05	rno-let-7f-5p	MIMAT0000067	YP00204359	E05	rno-miR-223-3p	MIMAT0000892	YP00205120
A06	rno-miR-103-3p	MIMAT0000101	YP00204063	E06	rno-miR-23b-3p	MIMAT0000125	YP02119756
A07	rno-miR-105	MIMAT0012825	YP00205105	E07	rno-miR-26a-5p	MIMAT0000082	YP00206023
A08	rno-miR-125a-5p	MIMAT0000443	YP00204339	E08	rno-miR-26b-5p	MIMAT0000083	YP00204172
A09	rno-miR-125b-5p	MIMAT0000423	YP00205713	E09	rno-miR-27a-3p	MIMAT0000084	YP00206038
A10	rno-miR-126a-3p	MIMAT0000445	YP00204227	E10	rno-miR-27b-3p	MIMAT0000419	YP00205915
A11	rno-miR-128-3p	MIMAT0000424	YP00205995	E11	rno-miR-28-5p	MIMAT0000085	YP00204322
A12	rno-miR-129-5p	MIMAT0000242	YP00204534	E12	rno-miR-296-3p	MIMAT0004679	YP00204393
B01	rno-miR-130a-3p	MIMAT0000425	YP00204658	F01	rno-miR-298-5p	MIMAT0000376	YP00205092
B02	rno-miR-132-3p	MIMAT0000426	YP00206035	F02	rno-miR-299a-5p	MIMAT0002890	YP00204544
B03	rno-miR-134-5p	MIMAT0000447	YP00205989	F03	rno-miR-29b-3p	MIMAT0000100	YP00204679
B04	rno-miR-138-5p	MIMAT0000430	YP00206078	F04	rno-miR-29c-3p	MIMAT0000681	YP00204729
B05	rno-miR-140-5p	MIMAT0000431	YP00204540	F05	rno-miR-30b-5p	MIMAT0000420	YP00204765
B06	rno-miR-142-3p	MIMAT0000434	YP00204291	F06	rno-miR-30c-5p	MIMAT0000244	YP00204783
B07	rno-miR-142-5p	MIMAT0000433	YP00204722	F07	rno-miR-30e-5p	MIMAT0000692	YP00204714
B08	rno-miR-143-3p	MIMAT0000849	YP00205106	F08	rno-miR-31a-5p	MIMAT0000538	YP00205159
B09	rno-miR-145-5p	MIMAT0000437	YP00204483	F09	rno-miR-320-3p	MIMAT0000510	YP00206042
B10	rno-miR-146a-5p	MIMAT0000449	YP00204688	F10	rno-miR-323-3p	MIMAT0000755	YP00204278
B11	rno-miR-146b-5p	MIMAT0005595	YP00205107	F11	rno-miR-325-5p	MIMAT0000558	YP00205417
B12	rno-miR-147	MIMAT0004857	YP02119770	F12	rno-miR-331-3p	MIMAT0000760	YP00206046
C01	rno-miR-150-5p	MIMAT0000451	YP00204660	G01	rno-miR-34a-5p	MIMAT0000255	YP00204486
C02	rno-miR-152-3p	MIMAT0000438	YP00204294	G02	rno-miR-34c-5p	MIMAT0000686	YP00205659
C03	rno-miR-15b-5p	MIMAT0000417	YP00204243	G03	rno-miR-363-3p	MIMAT0003210	YP02103062
C04	rno-miR-16-5p	MIMAT0000069	YP00205702	G04	rno-miR-379-5p	MIMAT0000733	YP00205658
C05	rno-miR-17-5p	MIMAT0000070	YP02119304	G05	rno-miR-383-5p	MIMAT0003114	YP00205543
C06	rno-miR-181a-5p	MIMAT0000256	YP00206081	G06	rno-miR-409a-3p	MIMAT0003205	YP00205544
C07	rno-miR-182	MIMAT0000211	YP00205089	G07	rno-miR-451-5p	MIMAT0001631	YP02119305
C08	rno-miR-183-5p	MIMAT0000261	YP00206030	G08	rno-miR-493-3p	MIMAT0003191	YP00205141
C09	rno-miR-184	MIMAT0000454	YP00204601	G09	rno-miR-672-5p	MIMAT0003735	YP00205170
C10	rno-miR-185-5p	MIMAT0000455	YP00206037	G10	rno-miR-9a-5p	MIMAT0000441	YP00204513
C11	rno-miR-186-5p	MIMAT0000456	YP00206053	G11	rno-miR-98-5p	MIMAT0000096	YP00204640
C12	rno-miR-18a-5p	MIMAT0000072	YP00204207	G12	rno-miR-99b-5p	MIMAT0000689	YP00205983
D01	rno-miR-191a-5p	MIMAT0000440	YP00204306	H01	cel-miR-39-3p	MIMAT0000010	YP00203952
D02	rno-miR-194-5p	MIMAT0000460	YP00204080	H02	cel-miR-39-3p	MIMAT0000010	YP00203952
D03	rno-miR-195-5p	MIMAT0000461	YP00205869	H03	U6 snRNA (v2)	N/A	YP02119464
D04	rno-miR-196a-5p	MIMAT0000226	YP00204386	H04	5S rRNA	N/A	YP00203906
D05	rno-miR-19a-3p	MIMAT0000073	YP00205862	H05	RNU5G	N/A	YP00203908
D06	rno-miR-19b-3p	MIMAT0000074	YP00204450	H06	RNU1A1	N/A	YP00203909
D07	rno-miR-200a-3p	MIMAT0000682	YP00204707	H07	UniSp2	N/A	YP00203950
D08	rno-miR-203a-3p	MIMAT0000264	YP00205914	H08	UniSp4	N/A	YP00203953
D09	rno-miR-205	MIMAT0000878	YP00205958	H09	UniSp5	N/A	YP00203955
D10	rno-miR-206-3p	MIMAT0000462	YP00206073	H10	UniSp6	N/A	YP00203954
D11	rno-miR-207	MIMAT0003115	YP00205509	H11	UniSP3	N/A	YP02119288
D12	rno-miR-20a-5p	MIMAT0000075	YP00204292	H12	UniSP3	N/A	YP02119288

Functional Groupings

Leukemia & Lymphoma

Hodgkin's Lymphoma: rno-miR-126a-3p,rno-miR-128-3p,rno-miR-129-5p,rno-miR-130a-3p,rno-miR-132-3p,rno-miR-134-5p,rno-miR-138-5p,rno-miR-140-5p,rno-miR-142-3p,rno-miR-142-5p,rno-miR-145-5p,rno-miR-147,rno-miR-15b-5p,rno-miR-181a-5p,rno-miR-183-5p,rno-miR-185-5p,rno-miR-200a-3p,rno-miR-205,rno-miR-20b-5p,rno-miR-21-5p,rno-miR-23b-3p,rno-miR-26a-5p,rno-miR-26b-5p,rno-miR-27a-3p,rno-miR-28-5p,rno-miR-29b-3p,rno-miR-30c-5p,rno-miR-31a-5p,rno-miR-323-3p,rno-miR-325-5p,rno-miR-34a-5p,rno-miR-34c-5p,rno-miR-9a-5p.

Primary Effusion Lymphoma: rno-miR-103-3p,rno-miR-140-5p,rno-miR-142-3p,rno-miR-152-3p,rno-miR-16-5p,rno-miR-17-5p,rno-miR-182,rno-miR-186-5p,rno-miR-191a-5p,rno-miR-194-5p,rno-miR-19a-3p,rno-miR-210-3p,rno-miR-23b-3p,rno-miR-26a-5p,rno-miR-29b-3p,rno-miR-30e-5p,rno-miR-320-3p,rno-miR-331-3p,rno-miR-34a-5p.

T-Cell Leukemia: rno-miR-132-3p,rno-miR-19b-3p,rno-miR-20b-5p,rno-miR-363-3p.

Autoimmune Disorders

Idiopathic Thrombocytopenic Purpura: rno-miR-17-5p,rno-miR-196a-5p,rno-miR-214-3p,rno-miR-296-3p,rno-miR-298-5p,rno-miR-379-5p,rno-miR-383-5p,rno-miR-409a-3p.

Systemic Lupus Erythematosus: rno-miR-142-3p,rno-miR-17-5p,rno-miR-184,rno-miR-196a-5p,rno-miR-21-5p,rno-miR-298-5p,rno-miR-383-5p,rno-miR-409a-3p.

Inflammatory Responses

IL-1 Induced Inflammatory Response: rno-miR-146a-5p,rno-miR-146b-5p,rno-miR-195-5p,rno-miR-26b-5p,rno-miR-296-3p,rno-miR-299a-5p.

Inflammation Mediators: rno-miR-203a-3p.

Macrophage Inflammatory Response: rno-miR-132-3p.

Vascular Inflammation: rno-miR-126a-3p,rno-miR-21-5p.

Other Inflammatory Response miRNAs: rno-miR-125a-5p,rno-miR-125b-5p.

Innate Immune Response: rno-miR-105,rno-miR-146a-5p,rno-miR-146b-5p,rno-miR-19a-3p,rno-miR-19b-3p,rno-miR-299a-5p.

Induced in Monocytes by Lipopolysaccharide (LPS): rno-let-7e-5p,rno-miR-132-3p,rno-miR-146a-5p,rno-miR-146b-5p,rno-miR-99b-5p,rno-miR-9a-5p.

Immune Cells

B Cell Differentiation: rno-miR-150-5p.

Invariant Natural Killer Cell Development: rno-miR-150-5p.

Lymphocytes: rno-let-7e-5p,rno-miR-125a-5p,rno-miR-125b-5p,rno-miR-142-5p,rno-miR-143-3p,rno-miR-145-5p,rno-miR-146a-5p,rno-miR-195-5p,rno-miR-206-3p,rno-miR-207,rno-miR-223-3p,rno-miR-451-5p,rno-miR-493-3p,rno-miR-672-5p.

Monocytopoiesis: rno-miR-17-5p,rno-miR-20a-5p.

Natural Regulatory T Cells: rno-miR-103-3p,rno-miR-142-5p,rno-miR-150-5p,rno-miR-15b-5p,rno-miR-16-5p,rno-miR-191a-5p,rno-miR-19a-3p,rno-miR-21-5p,rno-miR-214-3p,rno-miR-223-3p,rno-miR-26a-5p,rno-miR-27b-3p,rno-miR-29c-3p,rno-miR-30b-5p,rno-miR-30c-5p,rno-miR-30e-5p.

Th2 Cells: rno-miR-126a-3p.

Targets Relevant Genes

Targets Cytokines: rno-miR-98-5p.

Targets Interferons & Receptors: rno-miR-146a-5p,rno-miR-223-3p.

Targets Interleukins: rno-miR-146a-5p,rno-miR-181a-5p,rno-miR-223-3p.

Targets STAT3: rno-miR-18a-5p.

Targets STAT4: rno-miR-19a-3p.

Targets STAT5: rno-miR-19b-3p.

Targets STAT6: rno-miR-20a-5p.

Signal Transduction

IL6 / STAT3 Signaling: rno-let-7a-5p,rno-let-7c-5p,rno-let-7d-5p,rno-let-7f-5p,rno-miR-17-5p,rno-miR-21-5p.

NFkB Signaling: rno-miR-146a-5p.

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.

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