miRCURY LNA™ miRNA Focus PCR Panels
Human Neurological Development & Disease
Product Data Sheet

Cat. no. 339325 YAHS-207Y

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	YAHS-207YA
C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)	96-well	YAHS-207YC
D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon®, DNA Engine Opticon 2; Stratagene Mx4000®	96-well	YAHS-207YD
E	Applied Biosystems® models 7900HT (384-well block), ViiA™ 7 (384-well block); Bio-Rad CFX384™	384-well	YAHS-207YE
F	Roche® LightCycler® 480 (96-well block)	96-well	YAHS-207YF
G	Roche® LightCycler® 480 (384-well block)	384-well	YAHS-207YG

Description

The Human Neurological Development & Disease miRCURY LNA™ miRNA Focus PCR Panel profiles the expression of 84 miRNAs differentially expressed during neuronal development or the progression of neurological diseases. This array provides neuroscience researchers with a convenient way to analyze the miRNAs most relevant to normal nervous system development and/or psychiatric and neurodegenerative disorder progression. Certain miRNAs, such as miR-9, promote neurodevelopment processes such as neurogenesis and synaptic plasticity. Microarray analyses of diseased brain tissues show a variety of significantly dysregulated miRNAs. However, few of these analyses have yet to focus on individual miRNA function and mechanism of action during specific disease processes. The profiling results from this array can serve as a useful marker for neuronal differentiation processes and may yield insights into the molecular mechanisms behind the pathogenesis of neurological disorders. The results can also help enhance basic neurological research since dysregulated developmental processes can lead to neurological diseases, and both often involve similar miRNA-regulated biological pathways. A set of controls present on this array enables data analysis using the ΔΔCT 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 neurological research 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	hsa-let-7b-5p	hsa-let-7c-5p	hsa-let-7d-5p	hsa-let-7e-5p	hsa-let-7i-5p	hsa-miR-101-3p	hsa-miR-105-5p	hsa-miR-106b-5p	hsa-miR-107	hsa-miR-124-3p	hsa-miR-125b-5p	hsa-miR-126-5p
B	hsa-miR-128-3p	hsa-miR-130a-3p	hsa-miR-132-3p	hsa-miR-133b	hsa-miR-134-5p	hsa-miR-135b-5p	hsa-miR-138-5p	hsa-miR-139-5p	hsa-miR-140-5p	hsa-miR-146a-5p	hsa-miR-146b-5p	hsa-miR-148b-3p
C	hsa-miR-151a-3p	hsa-miR-152-3p	hsa-miR-15a-5p	hsa-miR-15b-5p	hsa-miR-181a-5p	hsa-miR-181d-5p	hsa-miR-191-5p	hsa-miR-193b-3p	hsa-miR-195-5p	hsa-miR-19b-3p	hsa-miR-203a-3p	hsa-miR-20a-5p
D	hsa-miR-212-3p	hsa-miR-22-3p	hsa-miR-24-3p	hsa-miR-26b-5p	hsa-miR-27a-3p	hsa-miR-28-5p	hsa-miR-298	hsa-miR-29a-3p	hsa-miR-29b-3p	hsa-miR-29c-3p	hsa-miR-302a-5p	hsa-miR-302b-5p
E	hsa-miR-30d-5p	hsa-miR-320a-3p	hsa-miR-328-3p	hsa-miR-337-3p	hsa-miR-338-3p	hsa-miR-339-5p	hsa-miR-342-3p	hsa-miR-346	hsa-miR-34a-5p	hsa-miR-376b-3p	hsa-miR-381-3p	hsa-miR-409-3p
F	hsa-miR-431-5p	hsa-miR-432-5p	hsa-miR-433-3p	hsa-miR-455-5p	hsa-miR-484	hsa-miR-485-3p	hsa-miR-485-5p	hsa-miR-487a-3p	hsa-miR-488-3p	hsa-miR-489-3p	hsa-miR-499a-5p	hsa-miR-509-3p
G	hsa-miR-511-5p	hsa-miR-512-3p	hsa-miR-518b	hsa-miR-539-5p	hsa-miR-652-3p	hsa-miR-7-5p	hsa-miR-9-5p	hsa-miR-9-3p	hsa-miR-92a-3p	hsa-miR-93-5p	hsa-miR-95-3p	hsa-miR-98-5p
H	cel-miR-39-3p	cel-miR-39-3p	SNORD44 (hsa)	SNORD38B (hsa)	SNORD49A (hsa)	U6 snRNA (v2)	UniSp2	UniSp4	UniSp5	UniSp6	UniSP3	UniSP3

miRNA Table

Well	miRNA ID	Accession #	Assay Catalog #	Well	miRNA ID	Accession #	Assay Catalog #
A01	hsa-let-7b-5p	MIMAT0000063	YP00204750	E01	hsa-miR-30d-5p	MIMAT0000245	YP00206047
A02	hsa-let-7c-5p	MIMAT0000064	YP00204767	E02	hsa-miR-320a-3p	MIMAT0000510	YP00206042
A03	hsa-let-7d-5p	MIMAT0000065	YP00204124	E03	hsa-miR-328-3p	MIMAT0000752	YP00204364
A04	hsa-let-7e-5p	MIMAT0000066	YP00205711	E04	hsa-miR-337-3p	MIMAT0000754	YP00205938
A05	hsa-let-7i-5p	MIMAT0000415	YP00204394	E05	hsa-miR-338-3p	MIMAT0000763	YP00204719
A06	hsa-miR-101-3p	MIMAT0000099	YP00204786	E06	hsa-miR-339-5p	MIMAT0000764	YP00206007
A07	hsa-miR-105-5p	MIMAT0000102	YP00204389	E07	hsa-miR-342-3p	MIMAT0000753	YP00205625
A08	hsa-miR-106b-5p	MIMAT0000680	YP00205884	E08	hsa-miR-346	MIMAT0000773	YP00206009
A09	hsa-miR-107	MIMAT0000104	YP00204468	E09	hsa-miR-34a-5p	MIMAT0000255	YP00204486
A10	hsa-miR-124-3p	MIMAT0000422	YP00206026	E10	hsa-miR-376b-3p	MIMAT0002172	YP00204218
A11	hsa-miR-125b-5p	MIMAT0000423	YP00205713	E11	hsa-miR-381-3p	MIMAT0000736	YP00205887
A12	hsa-miR-126-5p	MIMAT0000444	YP00206010	E12	hsa-miR-409-3p	MIMAT0001639	YP00204358
B01	hsa-miR-128-3p	MIMAT0000424	YP00205995	F01	hsa-miR-431-5p	MIMAT0001625	YP00204737
B02	hsa-miR-130a-3p	MIMAT0000425	YP00204658	F02	hsa-miR-432-5p	MIMAT0002814	YP00204776
B03	hsa-miR-132-3p	MIMAT0000426	YP00206035	F03	hsa-miR-433-3p	MIMAT0001627	YP00204036
B04	hsa-miR-133b	MIMAT0000770	YP00206058	F04	hsa-miR-455-5p	MIMAT0003150	YP00204363
B05	hsa-miR-134-5p	MIMAT0000447	YP00205989	F05	hsa-miR-484	MIMAT0002174	YP00205636
B06	hsa-miR-135b-5p	MIMAT0000758	YP00204130	F06	hsa-miR-485-3p	MIMAT0002176	YP00206055
B07	hsa-miR-138-5p	MIMAT0000430	YP00206078	F07	hsa-miR-485-5p	MIMAT0002175	YP02112548
B08	hsa-miR-139-5p	MIMAT0000250	YP00205874	F08	hsa-miR-487a-3p	MIMAT0002178	YP00204381
B09	hsa-miR-140-5p	MIMAT0000431	YP00204540	F09	hsa-miR-488-3p	MIMAT0004763	YP00204469
B10	hsa-miR-146a-5p	MIMAT0000449	YP00204688	F10	hsa-miR-489-3p	MIMAT0002805	YP00204395
B11	hsa-miR-146b-5p	MIMAT0002809	YP02119310	F11	hsa-miR-499a-5p	MIMAT0002870	YP00205935
B12	hsa-miR-148b-3p	MIMAT0000759	YP00204047	F12	hsa-miR-509-3p	MIMAT0002881	YP00204458
C01	hsa-miR-151a-3p	MIMAT0000757	YP00204576	G01	hsa-miR-511-5p	MIMAT0002808	YP00204046
C02	hsa-miR-152-3p	MIMAT0000438	YP00204294	G02	hsa-miR-512-3p	MIMAT0002823	YP00204382
C03	hsa-miR-15a-5p	MIMAT0000068	YP00204066	G03	hsa-miR-518b	MIMAT0002844	YP00204405
C04	hsa-miR-15b-5p	MIMAT0000417	YP00204243	G04	hsa-miR-539-5p	MIMAT0003163	YP00205656
C05	hsa-miR-181a-5p	MIMAT0000256	YP00206081	G05	hsa-miR-652-3p	MIMAT0003322	YP00204387
C06	hsa-miR-181d-5p	MIMAT0002821	YP00204789	G06	hsa-miR-7-5p	MIMAT0000252	YP02119317
C07	hsa-miR-191-5p	MIMAT0000440	YP00204306	G07	hsa-miR-9-5p	MIMAT0000441	YP00204513
C08	hsa-miR-193b-3p	MIMAT0002819	YP00204226	G08	hsa-miR-9-3p	MIMAT0000442	YP00204620
C09	hsa-miR-195-5p	MIMAT0000461	YP00205869	G09	hsa-miR-92a-3p	MIMAT0000092	YP00204258
C10	hsa-miR-19b-3p	MIMAT0000074	YP00204450	G10	hsa-miR-93-5p	MIMAT0000093	YP00204715
C11	hsa-miR-203a-3p	MIMAT0000264	YP00205914	G11	hsa-miR-95-3p	MIMAT0000094	YP00204288
C12	hsa-miR-20a-5p	MIMAT0000075	YP00204292	G12	hsa-miR-98-5p	MIMAT0000096	YP00204640
D01	hsa-miR-212-3p	MIMAT0000269	YP00204170	H01	cel-miR-39-3p	MIMAT0000010	YP00203952
D02	hsa-miR-22-3p	MIMAT0000077	YP00204606	H02	cel-miR-39-3p	MIMAT0000010	YP00203952
D03	hsa-miR-24-3p	MIMAT0000080	YP00204260	H03	SNORD44 (hsa)	N/A	YP00203902
D04	hsa-miR-26b-5p	MIMAT0000083	YP00204172	H04	SNORD38B (hsa)	N/A	YP00203901
D05	hsa-miR-27a-3p	MIMAT0000084	YP00206038	H05	SNORD49A (hsa)	N/A	YP00203904
D06	hsa-miR-28-5p	MIMAT0000085	YP00204322	H06	U6 snRNA (v2)	N/A	YP02119464
D07	hsa-miR-298	MIMAT0004901	YP00204115	H07	UniSp2	N/A	YP00203950
D08	hsa-miR-29a-3p	MIMAT0000086	YP00204698	H08	UniSp4	N/A	YP00203953
D09	hsa-miR-29b-3p	MIMAT0000100	YP00204679	H09	UniSp5	N/A	YP00203955
D10	hsa-miR-29c-3p	MIMAT0000681	YP00204729	H10	UniSp6	N/A	YP00203954
D11	hsa-miR-302a-5p	MIMAT0000683	YP00204699	H11	UniSP3	N/A	YP02119288
D12	hsa-miR-302b-5p	MIMAT0000714	YP00205676	H12	UniSP3	N/A	YP02119288

Functional Groupings

Neurological Development: hsa-miR-124-3p,hsa-miR-125b-5p,hsa-miR-132-3p,hsa-miR-134-5p,hsa-miR-138-5p,hsa-miR-9-5p.

Autistic Disorders: hsa-miR-106b-5p,hsa-miR-128-3p,hsa-miR-132-3p,hsa-miR-140-5p,hsa-miR-146b-5p,hsa-miR-148b-3p,hsa-miR-15a-5p,hsa-miR-15b-5p,hsa-miR-181d-5p,hsa-miR-193b-3p,hsa-miR-212-3p,hsa-miR-27a-3p,hsa-miR-320a-3p,hsa-miR-381-3p,hsa-miR-431-5p,hsa-miR-432-5p,hsa-miR-484,hsa-miR-539-5p,hsa-miR-652-3p,hsa-miR-7-5p,hsa-miR-93-5p,hsa-miR-95-3p.

Schizophrenia: hsa-let-7d-5p,hsa-let-7e-5p,hsa-miR-105-5p,hsa-miR-106b-5p,hsa-miR-107,hsa-miR-126-5p,hsa-miR-128-3p,hsa-miR-130a-3p,hsa-miR-138-5p,hsa-miR-152-3p,hsa-miR-15a-5p,hsa-miR-15b-5p,hsa-miR-181a-5p,hsa-miR-195-5p,hsa-miR-20a-5p,hsa-miR-212-3p,hsa-miR-24-3p,hsa-miR-26b-5p,hsa-miR-27a-3p,hsa-miR-29a-3p,hsa-miR-29b-3p,hsa-miR-29c-3p,hsa-miR-302a-5p,hsa-miR-302b-5p,hsa-miR-30d-5p,hsa-miR-338-3p,hsa-miR-346,hsa-miR-381-3p,hsa-miR-409-3p,hsa-miR-455-5p,hsa-miR-484,hsa-miR-485-5p,hsa-miR-487a-3p,hsa-miR-489-3p,hsa-miR-499a-5p,hsa-miR-512-3p,hsa-miR-518b,hsa-miR-7-5p,hsa-miR-9-3p,hsa-miR-92a-3p.

Anxiety Disorder: hsa-miR-128-3p,hsa-miR-485-3p,hsa-miR-509-3p.

Tourette's Syndrome: hsa-miR-24-3p.

Alzheimer's Disease: hsa-let-7b-5p,hsa-let-7c-5p,hsa-let-7d-5p,hsa-let-7e-5p,hsa-let-7i-5p,hsa-miR-101-3p,hsa-miR-106b-5p,hsa-miR-107,hsa-miR-128-3p,hsa-miR-139-5p,hsa-miR-146a-5p,hsa-miR-151a-3p,hsa-miR-15a-5p,hsa-miR-15b-5p,hsa-miR-181a-5p,hsa-miR-19b-3p,hsa-miR-20a-5p,hsa-miR-22-3p,hsa-miR-24-3p,hsa-miR-26b-5p,hsa-miR-27a-3p,hsa-miR-28-5p,hsa-miR-298,hsa-miR-29a-3p,hsa-miR-29b-3p,hsa-miR-29c-3p,hsa-miR-30d-5p,hsa-miR-320a-3p,hsa-miR-328-3p,hsa-miR-346,hsa-miR-34a-5p,hsa-miR-376b-3p,hsa-miR-433-3p,hsa-miR-485-5p,hsa-miR-488-3p,hsa-miR-511-5p,hsa-miR-9-5p,hsa-miR-92a-3p,hsa-miR-93-5p,hsa-miR-98-5p.

Prion Diseases: hsa-let-7b-5p,hsa-miR-128-3p,hsa-miR-139-5p,hsa-miR-146a-5p,hsa-miR-191-5p,hsa-miR-203a-3p,hsa-miR-320a-3p,hsa-miR-337-3p,hsa-miR-338-3p,hsa-miR-339-5p,hsa-miR-342-3p.

Huntington's Disease: hsa-miR-124-3p,hsa-miR-132-3p,hsa-miR-135b-5p,hsa-miR-29a-3p,hsa-miR-29b-3p,hsa-miR-9-3p,hsa-miR-9-5p.

Parkinson's Disease: hsa-miR-133b,hsa-miR-433-3p,hsa-miR-7-5p.

Spinocerebellar Ataxia 1: hsa-miR-101-3p,hsa-miR-130a-3p,hsa-miR-19b-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 foward 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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