

## miProfile™ Mouse miRNome miRNA qPCR Array(384-well)

**For focused group profiling of mouse miRNA whole genome expression**

Cat. No. QM043-F (3 x 96-well plate, Format F)

Cat. No. QM043-G (3 x 96-well plate, Format G)

Cat. No. QM043-H (3 x 96-well plate, Format H)

Available as 1 set or 6 sets. Each set contains 834 unique miRNA primers deposited in three 384-well plates.

### Introduction

The miProfile mouse miRNome miRNA PCR array (384-well) is a set of five 384-well plates, covering 834 of best characterized and annotated miRNAs based on miRBase V18. Each 384-well plate contains up to 360 pairs of PCR primers (forward: miRNA-specific primer; reverse: universal primer), which are pre-deposited in each well. Each plate also designated 24 control wells for monitoring the efficiency of every step of the experiment - from reverse transcription to qPCR reaction.

- QM043 plate 01: 360 unique miRNA PCR primer pairs
- QM043 plate 02: 360 unique miRNA PCR primer pairs
- QM043 plate 03: 114 unique miRNA PCR primer pairs

### Shipping and storage condition

Shipped at room temperate

Stable for at least 6 months when stored at -20 °C

### Array format

GeneCopeia provides three qPCR array formats (F, G, and H) suitable for use with the following real-time cyclers.

**Important note:** Upon receiving, please check to make sure that the correct array format was ordered to ensure the compatibility with your qPCR instrument.

Plate format	Instrument provider	qPCR instrument model
<b>F</b> (384-well)	Applied Biosystems	7900HT (384-well block), ViiA™7 (384-well block)
<b>G</b> (384-well)	Bio-Rad Laboratories	CFX384™ (384-well block)
<b>H</b> (384-well)	Roche Applied Science	LightCycler® 480 (384-well block)

### Quality control

1. Each miRNA-specific primer in the miProfile miRNA qPCR array has been experimentally validated to yield a single dissociation curve peak and to generate a single amplicon of the correct size for the targeted miRNA.
2. The positive PCR controls (PCR) have been verified to amplify a single amplicon of the correct size with Ct values around **20±2**.
3. The Spike-in reverse transcription controls (RT) have been verified to amplify a single amplicon of the correct size with Ct values around **20±3**.

4.  $R_2 > 0.99$  was observed for high inter/ intra-array reproducibility.

**Materials required but not provided**

All-in-One™ miRNA First-Strand cDNA Synthesis Kit  
 All-in-One™ qPCR Mix  
 Total RNA extraction kit (RNAzol® RT RNA extraction reagent is recommended)  
 DNase/RNase free tips, PCR reaction tubes, 1.5 ml microcentrifuge tubes  
 5 ml and 10 ml graduated pipettes, beakers, flasks, and cylinders  
 10 µl to 1,000 µl adjustable single channel micropipettes with disposable tips  
 5 µl to 20 µl adjustable multichannel micropipette, disposable tips, and reservoir  
 qPCR instrument, compatible with gene qPCR arrays ordered

**Array layout**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
B	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
C	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
D	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
E	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
F	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144
G	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168
H	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192
I	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
J	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
K	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264
L	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288
M	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312
N	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336
O	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360
P	NC	NC	NC	NC	HK1	HK1	HK2	HK2	HK3	HK3	HK4	HK4	HK5	HK5	HK6	HK6	RT	RT	RT	RT	PCR	PCR	PCR	PCR

Figure1. Illustration of miProfile miRNA qPCR array (384-well plate)

- **miRNA primer pairs:** Wells 1-360 are designated wells for pre-deposited miRNA primer pairs.
- **NC:** Negative controls, which only have the pre-deposited reverse universal primers.
- **HK1-6:** Twelve pre-deposited housekeeping snRNAs primer pairs, which can be used as endogenous positive controls as well as for array normalization.
- **RT:** Four replicates of spike-in reverse transcription controls, which can be used to monitor the efficiency of the RT reaction. These pre-deposited primer pairs specifically amplify the cDNA template reversed transcribed from the spike-in exogenous RNA in the sample.
- **PCR:** Four replicates of positive PCR controls, which are used to verify the PCR efficiency by amplifying the pre-deposited DNA template with its specific pre-deposited primer pairs.

**miRNA primer list**

The primer list can be downloaded from <http://www.genecopoeia.com/product/qpcr-arrays/mirna/mirnomia.php>.

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