

TaqMan® Rodent MicroRNA Arrays

These arrays are part of a collection of TaqMan® Gene Signature Arrays that enable analysis of hundreds of TaqMan® Assays on a micro fluidic card with minimal effort.

MicroRNAs (miRNAs) are a class of naturally occurring noncoding RNAs that play a key role in gene regulation. These transcripts are highly conserved, single-stranded RNAs (~22 nucleotides) that are cleaved from larger hairpin precursor transcripts. MicroRNAs exert their regulatory effects through the RNA interference (RNAi) machinery by cleaving, or most often, repressing the translation of their messenger RNA (mRNA) targets and are predicted to regulate at least one third of all human genes¹.

This newly discovered form of post-transcriptional gene regulation has been demonstrated to play important roles in a variety of fundamental cellular processes including cell proliferation, differentiation and death². As a result, miRNAs may be directly involved in the development and progression of human diseases such as cancer, thereby representing an important regulatory mechanism to understand.

Comprehensive coverage of Sanger miRBase v10 is enabled across a two-card set of TaqMan® MicroRNA Arrays (Array A and B) for a total of 518, and 303 unique assays, specific to mouse or rat miRNAs, respectively. In addition, each array contains six control assays—five carefully selected candidate endogenous control assays (three relevant to mouse, and five relevant to rat), and one negative control assay. Array A focuses on more highly characterized

miRNAs, while Array B contains many of the more recently discovered miRNAs along with the miR* sequences. To meet the needs of more focused studies, Arrays A and B can be purchased and run separately.

For a convenient and streamlined workflow, each TaqMan MicroRNA Array is used in conjunction with Megaplex™ RT Primers—pre-defined pools of up to 381 RT primers. Two pools of Megaplex RT Primers (Rodent Pools A and B) are available to complement the assays on the respective arrays. Additionally, when assay sensitivity is of the utmost importance, or when sample is limiting, a preamplification step using Megaplex™ PreAmp Primers can be added. The PreAmp Primers significantly enhance the ability to detect low expressed miRNAs, enabling the generation of a comprehensive expression profile using as little as 1ng of input total RNA.

Together, these products create the ideal workflow for running hundreds of TaqMan® MicroRNA Assays in as little as five hours, and are the perfect solution for miRNA profiling applications. Combined with the data quality advantages of TaqMan MicroRNA Assays—unsurpassed sensitivity, high specificity, and wide dynamic range—this provides significant advantages over microarrays.

References:

1. Zamore, P.D. and Haley, B. 2005. *Science* 39:1519–1524.
2. Miska, E.A. 2005. *Curr Opin Genet Dev* 15:563–568.

TaqMan® Gene Signature Arrays

Gene Signature Array Name	# of miRNA Targets/Controls	Format	# of Arrays	Part Number
Rodent MicroRNA Array v2.0				
Rodent Array A	375/6	Format 384	4 arrays	4398967
Rodent Array B	210/6	Format 384	4 arrays	4398968
Rodent Array A and B	585/6	Format 384	8 arrays	4400239

Associated Products

Reagents	Part Number
Megaplex™ RT for TaqMan® MicroRNA Assays	
<ul style="list-style-type: none"> Megaplex™ RT Primers <ul style="list-style-type: none"> Rodent Pool A Rodent Pool B Megaplex™ PreAmp Primers <ul style="list-style-type: none"> Rodent Pool A Rodent Pool B 	Multiple ‡
TaqMan® MicroRNA Reverse Transcription Kit	
200 reactions	4366596
1,000 reactions	4366597
TaqMan® 2X Universal PCR Master Mix, No AmpErase® UNG	4324018

‡ Visit mirna.appliedbiosystems.com for product information.

TaqMan[®] Rodent MicroRNA Array A

A	mmu-let-7b	mmu-let-7c	mmu-let-7d	mmu-let-7e	mmu-let-7g	mmu-let-7i	mmu-miR-1	rno-miR-1	mmu-miR-7a	mmu-miR-7b	Mamm U6	Mamm U6	mmu-miR-9	mmu-miR-10a	mmu-miR-10b	mmu-miR-15a	mmu-miR-15b	mmu-miR-16	rno-miR-17-3p	mmu-miR-18a	mmu-miR-18b	mmu-miR-19a	mmu-miR-19b	mmu-miR-20a	
B	mmu-miR-20b	mmu-miR-20b-3p	mmu-miR-21	mmu-miR-23b	mmu-miR-24	mmu-miR-25	mmu-miR-26a	mmu-miR-26b	mmu-miR-27a	mmu-miR-27b	Mamm U6	Mamm U6	mmu-miR-28	mmu-miR-29b	mmu-miR-29c	mmu-miR-30b	mmu-miR-30c	mmu-miR-30d	mmu-miR-32	mmu-miR-34a	mmu-miR-34c	mmu-miR-93	mmu-miR-96	mmu-miR-98	
C	mmu-miR-99a	mmu-miR-99b	mmu-miR-100	mmu-miR-101a	mmu-miR-103	mmu-miR-105	mmu-miR-107	mmu-miR-122	mmu-miR-124	mmu-miR-125a-3p	mmu-miR-125a-5p	mmu-miR-125b-5p	mmu-miR-126-3p	mmu-miR-126-5p	mmu-miR-127	mmu-miR-128a	mmu-miR-129-3p	mmu-miR-130a	mmu-miR-130b	mmu-miR-130c	mmu-miR-132	mmu-miR-133a	mmu-miR-133b	mmu-miR-134	mmu-miR-135a
D	mmu-miR-135b	mmu-miR-136	mmu-miR-137	mmu-miR-138	mmu-miR-139-3p	mmu-miR-139-5p	mmu-miR-140	mmu-miR-141	mmu-miR-142-3p	mmu-miR-142-5p	snoRNA 135	mmu-miR-145	mmu-miR-146a	mmu-miR-146b	mmu-miR-147	mmu-miR-148a	mmu-miR-148b	mmu-miR-150	mmu-miR-151-3p	mmu-miR-152	mmu-miR-153	mmu-miR-154	mmu-miR-181a	mmu-miR-181c	
E	mmu-miR-182	mmu-miR-183	mmu-miR-184	mmu-miR-185	mmu-miR-186	mmu-miR-190	mmu-miR-191	mmu-miR-192	mmu-miR-193	mmu-miR-193b	mmu-miR-194	mmu-miR-195	mmu-miR-196b	rno-miR-196c	mmu-miR-197	mmu-miR-199a-3p	mmu-miR-199a-5p	mmu-miR-200a	mmu-miR-200b	mmu-miR-200c	mmu-miR-201	mmu-miR-202-3p	mmu-miR-205-5p	mmu-miR-203	
F	mmu-miR-204	mmu-miR-205	mmu-miR-207	rno-miR-207	mmu-miR-208	mmu-miR-208b	mmu-miR-210	mmu-miR-211	mmu-miR-214	mmu-miR-215	snoRNA 202	mmu-miR-216a	mmu-miR-216b	mmu-miR-217	mmu-miR-218	mmu-miR-219	mmu-miR-220	mmu-miR-221	mmu-miR-222	mmu-miR-223	mmu-miR-224	mmu-miR-229-3p	mmu-miR-231a-3p	mmu-miR-231b-5p	
G	mmu-miR-292-3p	mmu-miR-293	mmu-miR-294	mmu-miR-295	mmu-miR-296-3p	mmu-miR-296-5p	mmu-miR-297c	mmu-miR-297b-5p	mmu-miR-298	mmu-miR-301a	mmu-miR-301b	mmu-miR-302a	mmu-miR-302c	mmu-miR-302d	mmu-miR-320	mmu-miR-323-3p	mmu-miR-324-5p	mmu-miR-325	rno-miR-327	mmu-miR-328	mmu-miR-329	mmu-miR-330	mmu-miR-331-3p	mmu-miR-331-5p	
H	rno-miR-333	mmu-miR-335-3p	mmu-miR-335-5p	mmu-miR-336	mmu-miR-337-3p	mmu-miR-337-5p	mmu-miR-338-3p	mmu-miR-339-3p	rno-miR-339-5p	mmu-miR-339-3p	U87	mmu-miR-340-3p	mmu-miR-340-5p	mmu-miR-342-3p	mmu-miR-342-5p	mmu-miR-343	mmu-miR-344	rno-miR-344-3p	mmu-miR-344-5p	mmu-miR-345-3p	mmu-miR-345-5p	mmu-miR-346	mmu-miR-346	mmu-miR-346	
I	rno-miR-347	mmu-miR-349	mmu-miR-350	rno-miR-351	mmu-miR-361	mmu-miR-362-3p	mmu-miR-363	mmu-miR-365	mmu-miR-367	mmu-miR-369-3p	mmu-miR-369-5p	mmu-miR-370	mmu-miR-375	mmu-miR-376a	mmu-miR-376b	mmu-miR-376c	mmu-miR-377	mmu-miR-379	mmu-miR-380-3p	mmu-miR-380-5p	mmu-miR-381	mmu-miR-382	mmu-miR-383		
J	mmu-miR-384-3p	mmu-miR-384-5p	mmu-miR-409-3p	mmu-miR-409-5p	mmu-miR-410	mmu-miR-411	rno-miR-421	mmu-miR-423-5p	mmu-miR-425	mmu-miR-429	Y1	mmu-miR-431	mmu-miR-433	mmu-miR-434-3p	mmu-miR-434-5p	mmu-miR-448	mmu-miR-449a	mmu-miR-449b	mmu-miR-450a-5p	mmu-miR-450b-5p	mmu-miR-451	mmu-miR-453	mmu-miR-455	mmu-miR-465a-3p	
K	mmu-miR-465a-5p	mmu-miR-465b-5p	rno-miR-466b	rno-miR-466c	mmu-miR-466h	mmu-miR-467a	mmu-miR-467c	mmu-miR-467d	mmu-miR-467e	mmu-miR-470	mmu-miR-484	mmu-miR-486	mmu-miR-487b	mmu-miR-489	mmu-miR-491	mmu-miR-493	mmu-miR-494	mmu-miR-495	mmu-miR-497	mmu-miR-499	mmu-miR-500	mmu-miR-501-3p	mmu-miR-503	mmu-miR-504	
L	mmu-miR-505	mmu-miR-509-3p	mmu-miR-509-5p	mmu-miR-511	mmu-miR-532-3p	mmu-miR-532-5p	rno-miR-532-5p	mmu-miR-539	mmu-miR-540-3p	mmu-miR-540-5p	ath-miR-159a	mmu-miR-542-3p	mmu-miR-542-5p	mmu-miR-543	rno-miR-543	mmu-miR-544	mmu-miR-551b	mmu-miR-574-3p	mmu-miR-582-3p	mmu-miR-582-5p	mmu-miR-590-5p	mmu-miR-598	mmu-miR-598-5p	mmu-miR-615-3p	
M	mmu-miR-615-5p	mmu-miR-654-3p	mmu-miR-654-5p	mmu-miR-665	mmu-miR-666-5p	mmu-miR-669a	mmu-miR-671-3p	mmu-miR-672	mmu-miR-673	mmu-miR-674	mmu-miR-708	mmu-miR-741	mmu-miR-742	rno-miR-742	mmu-miR-743b-3p	mmu-miR-743b-5p	mmu-miR-743a	rno-miR-743b	mmu-miR-744	mmu-miR-758	rno-miR-760-5p	mmu-miR-770-3p	mmu-miR-802	mmu-miR-871	
N	rno-miR-871	mmu-miR-872	mmu-miR-873	mmu-miR-874	mmu-miR-875-3p	mmu-miR-876-3p	mmu-miR-876-5p	rno-miR-878	mmu-miR-878-5p	mmu-miR-881	mmu-miR-881	mmu-miR-881	mmu-miR-881	mmu-miR-883a-3p	mmu-miR-883b-3p	mmu-miR-883a-5p	mmu-miR-883b-5p	mmu-miR-148a	rno-miR-219-1-3p	mmu-miR-224	mmu-miR-324-3p	mmu-miR-351	mmu-miR-381	rno-miR-409-5p	
O	rno-miR-450a	mmu-miR-452	mmu-miR-464	mmu-miR-467b	mmu-miR-468	mmu-miR-469	mmu-miR-488	mmu-miR-490	mmu-miR-496	mmu-miR-505	mmu-miR-548	mmu-miR-547	mmu-miR-652	mmu-miR-667	mmu-miR-668	mmu-miR-670	mmu-miR-675-3p	mmu-miR-675-5p	mmu-miR-676	mmu-miR-677	mmu-miR-679	mmu-miR-680	mmu-miR-682	mmu-miR-683	
P	mmu-miR-684	mmu-miR-685	mmu-miR-686	mmu-miR-687	mmu-let-7a	mmu-let-7f	mmu-miR-106b	mmu-miR-155	mmu-miR-17	mmu-miR-23a	mmu-miR-29a	mmu-miR-30a	mmu-miR-30e	mmu-miR-31	mmu-miR-34b-3p	mmu-miR-92a	mmu-miR-190b	mmu-miR-129-5p	mmu-miR-187	mmu-miR-188-3p	mmu-miR-188-5p	mmu-miR-166a	mmu-miR-188b-5p	mmu-miR-302b	mmu-miR-322
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Port

TaqMan[®] Rodent MicroRNA Array B

A	mmu-miR-31*	mmu-miR-322*	mmu-miR-325*	mmu-miR-33*	mmu-miR-330*	mmu-miR-34c*	mmu-miR-374*	mmu-miR-376a*	Y1	Y1	Mamm U6	Mamm U6	snoRNA 135	snoRNA 135	mmu-miR-378*	mmu-miR-382*	mmu-miR-411*	mmu-miR-425*	mmu-miR-431*	mmu-miR-433*	mmu-miR-455*	mmu-miR-463*	mmu-miR-467a*	mmu-miR-467b*	
B	mmu-miR-467e*	mmu-miR-470*	mmu-miR-483*	mmu-miR-485*	mmu-miR-488*	mmu-miR-503*	mmu-miR-674*	mmu-miR-676*	Y1	Y1	Mamm U6	Mamm U6	snoRNA 135	snoRNA 135	mmu-miR-708*	mmu-miR-712*	mmu-miR-872*	mmu-miR-877*	mmu-miR-879*	mmu-miR-881*	mmu-miR-9*	mmu-miR-92a*	mmu-miR-93*	mmu-miR-99a*	mmu-miR-99b*
C	rno-let-7e*	rno-miR-1*	mmu-miR-125b*	mmu-miR-135a*	mmu-miR-136*	mmu-miR-204*	U87	U87	snoRNA 202	snoRNA 202	snoRNA 429	snoRNA 429	rno-miR-20a*	rno-miR-159a	rno-miR-25*	rno-miR-28*	rno-miR-29b-1*	rno-miR-29b-2*	rno-miR-30a*	rno-miR-30b*	rno-miR-30c*	rno-miR-30e*	rno-miR-30f*	rno-miR-30g*	rno-miR-30h*
D	mmu-miR-23a*	mmu-miR-234-1*	mmu-miR-376b*	mmu-miR-376c*	mmu-miR-744*	mmu-miR-74*	U87	U87	snoRNA 202	snoRNA 202	snoRNA 429	snoRNA 429	mmu-miR-302c*	mmu-miR-30*	mmu-miR-30b*	mmu-miR-30c-1*	mmu-miR-30c-2*	mmu-miR-30e*	mmu-miR-30f*	mmu-miR-30g*	mmu-miR-30h*	mmu-miR-30i*	mmu-miR-30j*	mmu-miR-30k*	mmu-miR-30l*
E	mmu-let-7a*	mmu-let-7b*	mmu-let-7c-1*	mmu-let-7d*	mmu-let-7f*	mmu-let-7g*	mmu-miR-71*	mmu-miR-101a*	mmu-miR-106b*	mmu-miR-10a*	mmu-miR-10b*	mmu-miR-10c*	mmu-miR-124*	mmu-miR-125b*	mmu-miR-127*	mmu-miR-130b*	mmu-miR-133a*	mmu-miR-135a*	mmu-miR-136*	mmu-miR-138*	mmu-miR-141*	mmu-miR-145*	mmu-miR-146b*	mmu-miR-148a*	mmu-miR-150*
F	mmu-miR-154*	mmu-miR-15a*	mmu-miR-15b*	rno-miR-16*	mmu-miR-17*	mmu-miR-181a-1*	mmu-miR-183*	mmu-miR-186*	mmu-miR-188*	mmu-miR-191*	mmu-miR-193*	mmu-miR-196a*	mmu-miR-196b*	mmu-miR-199b*	mmu-miR-19a*	mmu-miR-200a*	mmu-miR-200b*	mmu-miR-200c*	mmu-miR-200e*	mmu-miR-200*	mmu-miR-206*	mmu-miR-211*	mmu-miR-214*	mmu-miR-218-1*	mmu-miR-218-2*
G	mmu-miR-24-1*	mmu-miR-24-2*	mmu-miR-26b*	mmu-miR-27a*	mmu-miR-27b*	mmu-miR-28*	mmu-miR-293*	mmu-miR-294*	mmu-miR-297a*	mmu-miR-299*	mmu-miR-29a*	mmu-miR-29b*	mmu-miR-29c*	mmu-miR-300*	mmu-miR-302a*	mmu-miR-302b*	mmu-miR-300	mmu-miR-22	mmu-miR-206	mmu-miR-485	mmu-miR-292-5p	mmu-miR-326	mmu-miR-291a-5p	mmu-miR-493	
H	mmu-miR-374	mmu-miR-664	rno-miR-20b-5p	rno-miR-352	rno-miR-489	mmu-miR-501-5p	mmu-miR-695	mmu-miR-696	mmu-miR-720	mmu-miR-697	mmu-miR-698	mmu-miR-699	mmu-miR-700	mmu-miR-701	mmu-miR-702	mmu-miR-704	mmu-miR-706	mmu-miR-707	mmu-miR-709	mmu-miR-710	mmu-miR-711	mmu-miR-713	mmu-miR-715	mmu-miR-717	
I	mmu-miR-718	mmu-miR-721	mmu-miR-678	mmu-miR-681	mmu-miR-449c	mmu-miR-719	mmu-miR-688	mmu-miR-690	mmu-miR-691	mmu-miR-692	mmu-miR-693-5p	mmu-miR-694	mmu-miR-673-5p	mmu-miR-592	mmu-miR-801	mmu-miR-758	mmu-miR-762	mmu-miR-761	mmu-miR-764-5p	mmu-miR-764-3p	mmu-miR-763	mmu-miR-759	mmu-miR-693-3p	mmu-miR-804	
J	mmu-miR-805	mmu-miR-463	rno-miR-743a	rno-miR-148b-5p	mmu-miR-875-5p	mmu-miR-378	mmu-miR-149	mmu-miR-190b	mmu-miR-877	mmu-miR-653	mmu-miR-760	mmu-miR-673-3p	mmu-miR-327	mmu-miR-343	mmu-miR-466b-3-3p	mmu-miR-466c-5p	mmu-miR-450a-3p	mmu-miR-101b	mmu-miR-466d-5p	mmu-miR-466d-3p	mmu-miR-466d-3p	mmu-miR-291b-3p	mmu-miR-878-3p	mmu-miR-466a-3p	mmu-miR-290-5p
K	mmu-let-7a*	mmu-let-7b*	mmu-let-7c-1*	mmu-let-7d*	mmu-let-7f*	mmu-let-7g*	mmu-miR-101a*	mmu-miR-106b*	mmu-miR-10a*	mmu-miR-10b*	mmu-miR-10c*	mmu-miR-124*	mmu-miR-125b*	mmu-miR-127*	mmu-miR-130b*	mmu-miR-133a*	mmu-miR-135a*	mmu-miR-136*	mmu-miR-138*	mmu-miR-141*	mmu-miR-145*	mmu-miR-146b*	mmu-miR-148a*	mmu-miR-150*	
L	mmu-miR-154*	mmu-miR-15a*	mmu-miR-15b*	mmu-miR-16*	mmu-miR-17*	mmu-miR-181a-1*	mmu-miR-183*	mmu-miR-186*	mmu-miR-188*	mmu-miR-191*	mmu-miR-193*	mmu-miR-196a*	mmu-miR-196b*	mmu-miR-199b*	mmu-miR-19a*	mmu-miR-200a*	mmu-miR-200b*	mmu-miR-200c*	mmu-miR-200e*	mmu-miR-200*	mmu-miR-206*	mmu-miR-211*	mmu-miR-214*	mmu-miR-218-1*	mmu-miR-218-2*
M	mmu-miR-24-1*	mmu-miR-24-2*	mmu-miR-26b*	mmu-miR-27a*	mmu-miR-27b*	mmu-miR-28*	mmu-miR-293*	mmu-miR-294*	mmu-miR-297a*	mmu-miR-299*	mmu-miR-29a*	mmu-miR-29b*	mmu-miR-29c*	mmu-miR-300*	mmu-miR-302a*	mmu-miR-302b*	mmu-miR-300	mmu-miR-22	mmu-miR-206	mmu-miR-485	mmu-miR-292-5p	mmu-miR-326	mmu-miR-291a-5p	mmu-miR-493	
N	mmu-miR-374	mmu-miR-664	rno-miR-20b-5p	rno-miR-352	rno-miR-489	mmu-miR-501-5p	mmu-miR-695	mmu-miR-696	mmu-miR-720	mmu-miR-697	mmu-miR-698	mmu-miR-699	mmu-miR-700	mmu-miR-701	mmu-miR-702	mmu-miR-704	mmu-miR-706	mmu-miR-707	mmu-miR-709	mmu-miR-710	mmu-miR-711	mmu-miR-713	mmu-miR-715	mmu-miR-717	
O	mmu-miR-718	mmu-miR-721	mmu-miR-678	mmu-miR-681	mmu-miR-449c	mmu-miR-719	mmu-miR-688	mmu-miR-690	mmu-miR-691	mmu-miR-692	mmu-miR-693-5p	mmu-miR-694	mmu-miR-673-5p	mmu-miR-592	mmu-miR-801	mmu-miR-758	mmu-miR-762	mmu-miR-761	mmu-miR-764-5p	mmu-miR-764-3p	mmu-miR-763	mmu-miR-759	mmu-miR-693-3p	mmu	