Supplemental Table 4.   List of differentially up-regulated miRNAs in the round spermatids of GRTH null mice

Information of genomic locus/miR cluster/IT/IG was obtained from http://mirbase.org/. IT: intragenic; IG intergenic.

ID (mmu-)	Genomic locus	Clustered miRNAs (mmu-)	IG/IT
miR-181a	1: 139,861,032-139,865,118	miR-181a, miR-181b	IG
miR-214	1: 164,151,499-164,155,608	miR-214, miR-199a	IT
miR-194	1: 187,135,198-187,139,571	miR-194, miR-215	IT
miR-215			IT
miR-350	1: 178,700,456-178,704,554		IT
miR-30a	1: 23,277,108-23,281,178		IG
miR-375	1: 74,945,232-74,949,295		IT
miR-467a	2: 10,393,558-10,404,947	miR-669d, miR-466f, miR-297a, miR-466o, miR-467c, miR-466b, miR-669k, miR-467a, miR-669g, miR-669j, miR-466e, miR-467b, miR-466c, miR-669a	IT
miR-467b			IT
miR-467c			IT
miR-467d	2: 10,427,257-10,429,434	miR-466b, miR-669a, miR-467e, miR-466p, miR-467d, miR-466a, miR-297c, miR-669c, miR-297b, miR-466d, miR-669m, miR-466n, miR-669o, miR-466g, miR-466h	IT
miR-467e			IT
miR-130a	2: 84,579,272-84,583,335		IG
miR-296-5p	2: 174,090,548-174,094,626	miR-298, miR-296	IG
miR-126-3p	2: 26,444,877-26,448,949		IT
miR-9	3: 88,017,520-88,021,608	miR-9, miR-3093	IT
miR-15b	3: 68,811,694-68,815,757	miR-15b, miR-16	IT
miR-137	3: 118,134,775-118,138,847		IT
miR-30c	4: 120,440,139-120,447,302	miR-30e, miR-30c	IT
miR-30e			IT

ID (mmu-)	Genomic locus	Clustered miRNAs (mmu-)	IG/IT
miR-34a	4: 149,440,563-149,444,664		IG
miR-879	5: 9,373,704-9,377,779		IT
miR-469	5: 113,772,106-113,772,179		IG
miR-93			IT
miR-25	5: 138,604,549-138,609,046	miR-106b, miR-93, miR-25	IT
miR-106b			IT
miR-339-5p	5: 139,843,604-139,847,699		IT
miR-218	5: 48,613,181-48,617,290		IT
miR-574-3p	5: 65,359,557-65,363,634		IT
miR-29a	6: 31,010,660-31,015,093	miR-29b, miR-29a	IG
miR-29b			IT
miR-148a	6: 51,217,811-51,221,909		IG
miR-182	6: 30,113,918-30,121,737	miR-96, miR-182, miR-183	IG
miR-183			IG
miR-200c	6: 124,666,340-124,670,408	miR-200c, miR-141	IT
miR-202-3p	7: 147,141,588-147,145,659		IT
miR-150	7: 52,375,127-52,379,191	miR-150, miR-5121	IG
miR-139-5p	7: 108,621,890-108,625,957		IT
miR-293	7: 3,218,344-3,222,725	miR-290, miR-291a, miR-292, miR-291b, miR-293, miR-294, miR-295	IG
miR-294			IG
miR-328	8: 107,830,264-107,834,360		IT
miR-140	8: 110,073,144-110,077,213		IT
miR-27a	8: 86,730,571-86,734,657	miR-23a, miR-27a, miR-24, miR-3074	IG
miR-199a-3p	9: 21,298,939-21,303,008		IT

ID (mmu-)	Genomic locus	Clustered miRNAs (mmu-)	IG/IT
miR-100	9: 41,337,508-41,341,587	miR-100, let-7a	IT
miR-34c	9: 50,909,139-50,913,750	miR-34b, miR-34c	IG
miR-34b-3p			IG
let-7g	9: 106,079,171-106,083,258		IT
miR-125b-5p	9: 41,388,009-41,392,085		IT
miR-184	9: 89,695,098-89,699,166		IG
miR-331-3p	10: 93,424,513-93,428,608		IT
miR-677	10: 127,520,342-127,524,419		IT
miR-103	11: 35,593,898-35,597,983		IT
miR-142-3p	11: 87,568,366-87,572,429		IT
miR-152	11: 96,709,707-96,713,779		IT
miR-146a	11: 43,185,899-43,189,963		IG
miR-10a	11: 96,176,479-96,180,588		IG
miR-301a	11: 86,924,506-86,928,591		IT
miR-340-3p	11: 49,881,204-49,885,301		IT
miR-497	11: 70,046,219-70,050,302	miR-497, miR-195	IG
miR-324-3p	11: 69,823,545-69,827,633		IT
miR-744	11: 65,546,235-65,550,334		IT
miR-21	11: 86,395,569-86,399,660		IT
miR-451	11: 77,884,672-77,888,743	miR-451, miR-144	IG
miR-324-5p	11: 69,823,545-69,827,633		IT
miR-142-5p	11: 87,568,366-87,572,429		IT
miR-203	12: 113,367,091-113,371,166		IG

ID (mmu-)	Genomic locus	Clustered miRNAs (mmu-)	IG/IT
miR-127	12: 110,829,056-110,834,809	miR-337, miR-540, miR-665, miR-3070a, miR-3070b, miR-431, miR-433, miR-127,	IT
miR-434-3p		miR-434, miR-432, miR-3071, miR-136	IT
miR-409-3p	12: 110,979,368-110,983,446	miR-382, miR-134, miR-668, miR-485, miR-453, miR-154, miR-496, miR-377, miR-541, miR-409, miR-412, miR-369, miR-410, miR-3072	IT
miR-24	13: 63,400,516-63,404,583	miR-23b, miR-27b, miR-3074, miR-24	IT
let-7d	13: 48,629,381-48,633,483	let-7a, let-7f, let-7d	IG
miR-27b	13: 63,399,792-63,404,092	miR-23b, miR-27b, miR-3074, miR-24	IT
miR-23b			IT
miR-449a	13: 113,825,742-113,829,832	miR-449a, miR-449b, miR-449c	IT
miR-92a			IT
miR-19b	14: 115,440,893-115,445,728	miR-17, miR-18a, miR-19a, miR-20a, miR-19b, miR-92a	IT
miR-17			IT
miR-124	14: 65,207,494-65,211,578	miR-124, miR-3078	IT
miR-30d	15: 68,166,977-68,174,851		IG
miR-30b		miR-30d, miR-30b	IG
miR-148b	15: 103,113,556-103,117,652		IT
let-7b	15: 85,535,749-85,539,833	let-7c, let-7b	IG
miR-484	16: 14,157,719-14,161,785		IG
miR-28	16: 24,825,941-24,830,026		IT
miR-301b	16: 17,122,154-17,126,589		IT
miR-130b		miR-301b, miR-130b	IT
miR-99a	16: 77,597,181-77,601,995		IT
let-7c		miR-99a, let-7c	IT

ID (mmu-)	Genomic locus	Clustered miRNAs (mmu-)	IG/IT
miR-193b	16: 13,447,616-13,456,019	miR-193b, miR-365	IG
miR-365			IG
let-7e			IG
miR-99b	17: 17,965,152-17,969,843	miR-99b, let-7e, miR-125a	IG
miR-125a-5p			IT
miR-145	18: 61,805,479-61,810,912	miR-145, miR-143	IT
miR-143			IG
miR-133a	18: 10,780,907-10,784,974	miR-1a, miR-1b, miR-133a	IT
miR-146b	19: 46,415,252-46,419,360		IT
miR-204	19: 22,823,095-22,827,162		IT
miR-192	19: 6,262,844-6,266,932	miR-194, miR-192	IG
miR-223	X: 93,436,156-93,440,265		IT
miR-532-3p			IT
miR-532-5p	X: 6,823,528-6,827,623	miR-532, miR-188, miR-362, miR-501	IT
miR-362-3p			IT
miR-741	X: 64,041,065-64,052,050	miR-881, miR-878, miR-880, miR-463, miR-741, miR-471, miR-883b	IG
miR-883b-3p			IG
miR-465a-3p	X: 64,090,227-64,094,300	miR-465a, miR-465b, miR-465c	IG
miR-222	X: 18,722,019-18,726,097	miR-222, miR-221	IG
miR-20b	X: 50,092,870-50,097,369	miR-106a, miR-18b, miR-20b, miR-19b, miR-92a, miR-363	IG
miR-363			IG
miR-652	X: 139,171,543-139,175,640		IT

ID (mmu-)	Genomic locus	Clustered miRNAs (mmu-)	IG/IT
miR-743a			IG
miR-743b-5p	X: 64,027,932-64,036,008	miR-883a, miR-742, miR-743b, miR-743a	IG
miR-883a-3p			IG
miR-201	X: 65,239,271-65,243,336	miR-201, miR-547	IG
miR-676	X: 97,574,436-97,578,524		IT
miR-106a	X: 50,093,680-50,097,744	miR-106a, miR-18b, miR-20b, miR-19b, miR-92a, miR-363	IT
miR-322	X: 50,405,432-50,409,526	miR-322, miR-503, miR-351, miR-542, miR-450a, miR-450b	IG
miR-470	X: 64,065,126-64,069,200	miR-470, miR-871	IG