

## Supplementary Tables

**Supplementary Table 1.** Expression levels of miRNAs in jejunal ICCs and colonic ICCs from diabetic *Kit<sup>copGFP/+</sup>;Lep<sup>ob/ob</sup>* and wild type *Kit<sup>copGFP/+</sup>;Lep<sup>+/+</sup>* mice obtained by miRNA-seq.

**Supplementary Table 2.** Clinical characterization of patients with idiopathic and/or diabetic gastroparesis.

**Supplementary Table 3.** Expression levels of miRNAs in blood samples collected from healthy control (HC, n=2) subjects, idiopathic gastroparesis high insulin (IG-HI, n=2), idiopathic gastroparesis low insulin patients (IG-LI, n=2), and diabetic gastroparesis (DG, n=2) patients obtained by miRNA-seq.

**Supplementary Table 4.** Oligonucleotides (primers, miRNAs, and siRNAs) used in this study.

**Supplementary Table 5.** Primary antibodies used in this study.

**Supplementary Table 6.** Drugs used in this study.

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**Supplementary Table 1.** Expression levels of miRNAs in jejunal ICCs and colonic ICCs from diabetic *Kit<sup>copGFP/+</sup>;Lep<sup>ob/ob</sup>* and wild type *Kit<sup>copGFP/+</sup>;Lep<sup>+/+</sup>* mice obtained by miRNA-seq

miRNA Name	Normalized Reads (Number)				Change of Reads (Number)
	WT		ob/ob		
	CICC	JICC	CICC	JICC	ob/ob-+/+
miR-10a-5p	188031.1	474072.5	42730.5	61758.1	-278807.5
miR-143-3p	281600.2	345646.5	49714.1	64861.5	-256335.5
miR-10b-5p	278419.5	58151.9	4421.7	6352.9	-162898.4
miR-99b-5p	71743.2	85929.8	3009.5	3763.0	-75450.3
miR-125a-5p	46778.6	58292.8	20161.8	17260.0	-33824.8
miR-191-5p	44092.8	33015.9	4624.1	4837.6	-33823.5
miR-100-5p	29431.4	45247.8	3353.4	4384.2	-33470.8
miR-99a-5p	39300.9	19739.1	2224.3	2567.2	-27124.2
let-7f-5p	18944.7	30199.5	8974.7	10519.0	-14825.3
miR-127-3p	9161.8	5452.7	1067.5	929.1	-6309.0
miR-27b-3p	8968.8	14149.8	6178.7	5993.4	-5473.2
miR-125b-5p	19859.0	17436.7	16305.4	14736.8	-3126.8
miR-145a-3p	6668.5	8023.7	4111.7	4487.5	-3046.4
miR-486b-5p	3152.6	2103.4	417.5	453.4	-2192.5
miR-541-5p	3841.6	2335.0	1347.4	1424.7	-1702.3
miR-409-5p	1791.7	1694.9	113.9	110.0	-1631.3
miR-351-5p	864.2	3498.5	1053.2	1058.0	-1125.7
miR-151-5p	1827.6	1056.4	292.6	370.1	-1110.7
miR-5099	1433.1	2067.0	711.6	591.2	-1098.7
miR-92b-3p	524.7	1262.0	102.8	111.1	-786.4
miR-151-3p	1178.5	543.4	94.9	110.0	-758.5
miR-342-3p	1183.3	1099.9	393.8	525.7	-681.9
miR-184-3p	1201.3	151.2	0.0	0.0	-676.2
miR-501-3p	1055.4	463.8	99.6	104.5	-657.6
miR-181a-5p	2068.4	1147.5	1067.5	896.8	-625.8
miR-152-3p	427.9	656.8	142.3	185.6	-378.4
miR-199a-5p	414.2	494.1	99.6	87.8	-360.4
miR-148a-3p	688.5	552.0	238.8	313.4	-344.1
miR-125b-3p	377.7	439.2	69.6	88.9	-329.2
miR-92a-3p_1	635.9	757.5	379.5	369.0	-322.5
miR-92a-3p_2	635.9	757.5	379.5	369.0	-322.5
miR-192-5p	344.2	247.4	14.2	20.0	-278.7
miR-21a-5p	663.4	471.8	300.5	321.2	-256.8
miR-3968	399.2	160.3	30.0	57.8	-235.9
miR-212-5p	249.8	242.8	0.0	31.1	-230.7
miR-196b-5p	443.4	6.3	7.9	0.0	-220.9
miR-214-3p	402.8	36.6	0.0	0.0	-219.7
miR-411-5p	221.1	220.4	0.0	6.7	-217.5

let-7e-5p	1482.2	2069.1	1609.9	1556.0	-192.7
miR-335-3p	349.0	156.3	56.9	64.5	-192.0
miR-484	259.4	307.5	117.0	80.0	-184.9
miR-322-3p	203.2	763.3	275.2	325.6	-182.8
miR-25-3p	297.6	285.1	112.3	106.7	-181.9
miR-215-5p	25.1	387.6	31.6	47.8	-166.7
miR-27a-3p	305.4	242.8	107.5	112.2	-164.2
miR-1a-3p	320.9	1678.5	638.9	1050.8	-154.9
miR-22-3p	702.8	1559.7	915.7	1042.4	-152.2
miR-101a-3p	147.0	140.3	0.0	20.0	-133.6
miR-199b-3p	299.2	83.6	51.7	71.5	-129.8
miR-200b-3p	164.9	80.4	7.9	0.0	-118.7
miR-434-5p	145.8	202.7	71.2	53.3	-112.0
miR-423-3p	194.8	134.6	52.2	54.5	-111.4
miR-10b-3p	224.7	11.5	11.1	12.2	-106.4
miR-139-3p	143.4	91.0	17.4	17.8	-99.6
miR-222-3p	271.3	35.5	58.5	62.2	-93.0
miR-181a-3p	47.8	148.9	9.5	15.6	-85.8
miR-615-3p	46.6	203.3	30.0	51.1	-84.4
miR-370-3p	46.6	125.4	7.9	0.0	-82.1
miR-6240	88.5	197.0	61.7	61.1	-81.3
miR-409-3p	89.6	129.4	33.2	24.4	-80.7
miR-204-5p	124.3	111.7	42.7	37.8	-77.7
miR-3470b	4.2	150.6	0.0	0.0	-77.4
miR-434-3p	193.6	191.2	117.0	124.5	-71.7
miR-136-3p	43.0	118.0	12.7	7.8	-70.3
miR-9-5p	155.0	29.8	25.3	21.1	-69.2
miR-128-3p	132.7	80.2	36.4	45.6	-65.5
miR-379-5p	117.1	77.3	30.0	37.8	-63.3
miR-1981-3p	65.7	64.1	14.2	0.0	-57.8
miR-126a-5p	89.6	114.5	50.6	44.5	-54.6
miR-377-3p	40.6	85.3	9.5	11.1	-52.7
miR-666-5p	66.9	28.6	0.0	0.0	-47.8
miR-146b-5p	161.4	39.5	34.8	74.5	-45.8
miR-574-3p	105.2	23.5	22.1	16.7	-44.9
miR-140-3p	135.1	105.9	56.9	101.1	-41.5
miR-411-3p	44.2	56.7	11.1	8.9	-40.5
miR-181b-5p	429.1	151.4	296.5	203.4	-40.3
miR-676-3p	95.6	61.8	30.0	50.0	-38.7
miR-674-3p	72.9	30.3	9.5	16.7	-38.6
miR-700-3p	38.2	37.8	0.0	0.0	-38.0
miR-182-5p	50.2	21.8	0.0	0.0	-36.0
miR-148b-3p	209.2	189.0	136.0	191.1	-35.5
miR-362-5p	88.5	48.1	36.4	35.6	-32.3
miR-124-3p	55.8	14.7	5.3	4.1	-30.6

miR-199b-5p	40.6	16.6	0.0	0.0	-28.6
miR-505-5p	50.2	14.9	7.9	0.0	-28.6
miR-329-3p	39.4	51.5	12.7	23.3	-27.5
miR-221-5p	59.8	10.9	9.5	10.0	-25.6
miR-195a-5p	101.6	53.8	41.1	64.5	-24.9
miR-375-3p	29.9	16.0	0.0	0.0	-23.0
miR-532-5p	17.9	30.9	0.0	5.6	-21.6
miR-671-3p	15.5	26.9	0.0	0.0	-21.2
miR-1943-5p	34.7	11.5	0.0	5.6	-20.3
miR-574-5p	37.1	2.9	0.0	0.0	-20.0
miR-28a-5p	71.7	108.2	61.7	78.3	-20.0
miR-342-5p	49.0	47.5	23.7	34.5	-19.2
miR-381-3p	14.3	33.2	9.5	0.0	-19.0
miR-1843b-3p	7.2	29.8	0.0	0.0	-18.5
miR-2137	13.1	21.8	0.0	0.0	-17.5
miR-877-5p	23.9	9.2	0.0	0.0	-16.5
miR-101b-3p	8.4	24.6	0.0	0.0	-16.5
miR-205-5p	32.3	0.0	0.0	0.0	-16.1
miR-149-5p	98.0	138.6	120.2	84.5	-16.0
miR-503-3p	75.3	282.9	178.7	148.9	-15.3
miR-3470a	0.0	30.3	0.0	0.0	-15.2
miR-1193-3p	14.3	41.2	7.9	17.8	-14.9
miR-126a-3p	113.6	228.5	180.3	132.2	-14.7
miR-669c-5p	38.2	20.6	14.2	15.6	-14.5
miR-300-3p	0.0	26.3	0.0	0.0	-13.2
miR-369-5p	22.7	3.4	0.0	0.0	-13.1
miR-203-3p	13.1	20.6	0.0	7.8	-13.0
miR-132-3p	41.8	38.9	20.6	34.5	-12.9
miR-30b-3p	25.1	20.6	7.9	15.6	-11.1
miR-93-3p	7.2	14.9	0.0	0.0	-11.0
miR-425-3p	9.6	11.5	0.0	0.0	-10.5
miR-378c	83.1	144.0	91.7	114.5	-10.4
miR-673-5p	7.2	10.3	0.0	0.0	-8.7
miR-582-3p	6.0	11.5	0.0	0.0	-8.7
miR-3057-5p	0.0	16.0	0.0	0.0	-8.0
miR-181c-5p	6.0	19.5	9.5	0.0	-8.0
miR-8114	15.5	0.0	0.0	0.0	-7.8
miR-136-5p	0.0	14.9	0.0	0.0	-7.4
miR-138-5p	6.6	8.3	0.0	0.0	-7.4
miR-410-3p	10.8	12.6	0.0	8.9	-7.2
miR-26b-3p	0.0	14.3	0.0	0.0	-7.2
miR-130b-5p	0.0	13.7	0.0	0.0	-6.9
miR-1843b-5p	0.0	13.7	0.0	0.0	-6.9
miR-20a-5p	7.2	6.3	0.0	0.0	-6.7
miR-873a-3p	6.0	7.4	0.0	0.0	-6.7

miR-1843a-3p	0.0	13.2	0.0	0.0	-6.6
miR-421-3p	0.0	12.6	0.0	0.0	-6.3
miR-23b-5p	10.8	18.3	0.0	16.7	-6.2
miR-668-3p	8.4	4.0	0.0	0.0	-6.2
miR-7019-3p	6.0	6.3	0.0	0.0	-6.1
miR-181c-3p	0.0	10.9	0.0	0.0	-5.4
miR-200a-3p	6.0	4.6	0.0	0.0	-5.3
miR-667-3p	0.0	18.3	7.9	0.0	-5.2
miR-181d-3p	0.0	10.3	0.0	0.0	-5.2
miR-339-3p	0.0	10.3	0.0	0.0	-5.2
miR-450a-1-3p	0.0	10.3	0.0	0.0	-5.2
miR-93-5p	9.6	19.5	7.9	11.1	-5.0
miR-196a-5p	14.3	4.6	6.3	3.3	-4.6
miR-467c-5p	0.0	9.2	0.0	0.0	-4.6
miR-194-5p	21.5	41.8	7.9	46.7	-4.4
miR-379-3p	0.0	8.6	0.0	0.0	-4.3
miR-493-5p	0.0	8.6	0.0	0.0	-4.3
miR-5126	0.0	8.6	0.0	0.0	-4.3
miR-25-5p	8.4	0.0	0.0	0.0	-4.2
miR-382-3p	0.0	8.0	0.0	0.0	-4.0
miR-200c-3p	7.2	5.4	0.0	5.6	-3.5
miR-345-5p	0.0	6.9	0.0	0.0	-3.4
miR-3475-3p	0.0	6.9	0.0	0.0	-3.4
miR-450b-5p	0.0	16.6	0.0	10.0	-3.3
miR-874-3p	12.0	0.0	0.0	5.6	-3.2
miR-140-5p	0.0	6.3	0.0	0.0	-3.1
miR-152-5p	0.0	6.3	0.0	0.0	-3.1
miR-712-5p	0.0	6.3	0.0	0.0	-3.1
miR-17-5p	6.0	0.0	0.0	0.0	-3.0
miR-21a-3p	6.0	0.0	0.0	0.0	-3.0
miR-301a-3p	6.0	0.0	0.0	0.0	-3.0
miR-504-5p	6.0	0.0	0.0	0.0	-3.0
miR-664-5p	6.0	0.0	0.0	0.0	-3.0
miR-486a-3p	0.0	12.6	0.0	6.7	-3.0
miR-28c	0.0	9.7	0.0	3.9	-2.9
miR-450b-3p	0.0	5.7	0.0	0.0	-2.9
miR-134-5p	15.5	3.4	7.9	5.6	-2.8
miR-148b-5p	0.0	5.2	0.0	0.0	-2.6
miR-383-5p	0.0	5.2	0.0	0.0	-2.6
miR-6538	0.0	5.2	0.0	0.0	-2.6
miR-9-3p	4.8	0.0	0.0	0.0	-2.4
miR-1187	0.0	4.6	0.0	0.0	-2.3
miR-6986-5p	0.0	4.6	0.0	0.0	-2.3
miR-1194	0.0	4.0	0.0	0.0	-2.0
miR-187-5p	0.0	4.0	0.0	0.0	-2.0

miR-341-3p	0.0	4.0	0.0	0.0	-2.0
miR-376b-5p	0.0	4.0	0.0	0.0	-2.0
miR-466g	0.0	4.0	0.0	0.0	-2.0
miR-5121	0.0	4.0	0.0	0.0	-2.0
miR-706	0.0	4.0	0.0	0.0	-2.0
miR-144-3p	0.0	3.4	0.0	0.0	-1.7
miR-3057-3p	0.0	3.4	0.0	0.0	-1.7
miR-323-5p	0.0	3.4	0.0	0.0	-1.7
miR-455-5p	0.0	3.4	0.0	0.0	-1.7
miR-615-5p	0.0	3.4	0.0	0.0	-1.7
miR-6944-3p	0.0	3.4	0.0	0.0	-1.7
miR-7047-3p	0.0	3.4	0.0	0.0	-1.7
miR-935	0.0	3.4	0.0	0.0	-1.7
miR-148a-5p	0.0	2.9	0.0	0.0	-1.4
miR-1947-5p	0.0	2.9	0.0	0.0	-1.4
miR-210-3p	0.0	2.9	0.0	0.0	-1.4
miR-331-3p	0.0	2.9	0.0	0.0	-1.4
miR-339-5p	0.0	2.9	0.0	0.0	-1.4
miR-361-3p	0.0	2.9	0.0	0.0	-1.4
miR-365-2-5p	0.0	2.9	0.0	0.0	-1.4
miR-467e-5p	0.0	2.9	0.0	0.0	-1.4
miR-541-3p	0.0	2.9	0.0	0.0	-1.4
miR-92b-5p	0.0	2.9	0.0	0.0	-1.4
miR-466e-3p	1.2	1.5	0.0	0.0	-1.3
miR-466p-3p	1.2	1.5	0.0	0.0	-1.3
miR-467b-5p	0.0	2.4	0.0	0.0	-1.2
miR-344d-3p	0.0	2.3	0.0	0.0	-1.1
miR-1843a-5p	0.0	8.6	0.0	6.7	-1.0
miR-323-3p	0.0	16.0	7.9	6.7	-0.7
miR-5128	0.0	1.4	0.0	0.0	-0.7
miR-133b-3p	0.0	1.3	0.0	0.0	-0.7
miR-3068-3p	0.0	6.9	0.0	5.6	-0.7
miR-378b	0.0	1.1	0.0	0.0	-0.6
miR-3473a	0.0	1.0	0.0	0.0	-0.5
miR-708-3p	0.0	8.0	7.9	0.0	-0.1
miR-144-5p	0.0	0.0	0.0	0.0	0.0
miR-155-5p	0.0	0.0	0.0	0.0	0.0
miR-183-5p	0.0	0.0	0.0	0.0	0.0
miR-19b-3p	0.0	0.0	0.0	0.0	0.0
miR-200b-5p	0.0	0.0	0.0	0.0	0.0
miR-206-3p	0.0	0.0	0.0	0.0	0.0
miR-216a-5p	0.0	0.0	0.0	0.0	0.0
miR-299a-3p	0.0	0.0	0.0	0.0	0.0
miR-299a-5p	0.0	0.0	0.0	0.0	0.0
miR-29c-3p	0.0	0.0	0.0	0.0	0.0

miR-326-3p	0.0	0.0	0.0	0.0	0.0
miR-34b-3p	0.0	0.0	0.0	0.0	0.0
miR-429-3p	0.0	0.0	0.0	0.0	0.0
miR-491-5p	0.0	0.0	0.0	0.0	0.0
miR-496a-3p	0.0	0.0	0.0	0.0	0.0
miR-540-3p	0.0	0.0	0.0	0.0	0.0
miR-543-5p	0.0	0.0	0.0	0.0	0.0
miR-547-3p	0.0	0.0	0.0	0.0	0.0
miR-671-5p	0.0	0.0	0.0	0.0	0.0
miR-674-5p	0.0	0.0	0.0	0.0	0.0
miR-96-5p	0.0	0.0	0.0	0.0	0.0
miR-672-5p	0.0	6.3	0.0	6.7	0.2
miR-669a-5p	2.7	0.0	4.3	0.0	0.8
miR-3473b	0.0	2.9	4.7	0.0	0.9
miR-3473e	0.0	2.9	4.7	0.0	0.9
miR-150-5p	7.2	2.9	12.7	0.0	1.3
miR-5100	0.0	2.9	0.0	5.6	1.3
miR-497a-5p	6.0	0.0	0.0	8.9	1.5
miR-30d-3p	0.0	3.4	0.0	6.7	1.6
miR-122-5p	0.0	13.7	9.5	7.8	1.8
miR-345-3p	0.0	4.0	0.0	7.8	1.9
miR-27b-5p	0.0	6.9	11.1	0.0	2.1
miR-132-5p	0.0	7.4	0.0	12.2	2.4
miR-193a-5p	0.0	0.0	0.0	6.7	3.3
miR-488-3p	0.0	0.0	0.0	6.7	3.3
miR-495-3p	0.0	0.0	0.0	6.7	3.3
miR-125a-3p	47.8	45.8	50.6	50.0	3.5
miR-652-3p	182.9	212.4	196.1	206.7	3.7
miR-29c-5p	0.0	0.0	0.0	7.8	3.9
miR-700-5p	0.0	0.0	7.9	0.0	4.0
miR-186-5p	210.4	214.1	218.2	214.5	4.1
miR-494-3p	0.0	3.4	0.0	12.2	4.4
miR-378a-5p	0.0	0.0	0.0	8.9	4.4
miR-337-5p	0.0	6.9	9.5	6.7	4.6
miR-29b-2-5p	0.0	0.0	9.5	0.0	4.7
miR-592-5p	0.0	0.0	9.5	0.0	4.7
miR-340-5p	8.4	10.9	12.7	16.7	5.0
let-7e-3p	0.0	4.0	9.5	5.6	5.5
let-7f-3p	0.0	6.3	11.1	7.8	6.3
miR-30c-3p	6.0	28.6	19.0	30.0	7.2
miR-384-5p	0.0	3.4	12.7	5.6	7.4
miR-543-3p	15.5	16.6	23.7	23.3	7.5
miR-29b-3p	0.0	0.0	5.5	9.4	7.5
miR-433-3p	26.3	34.4	52.2	24.4	8.0
miR-872-3p	0.0	18.9	19.0	16.7	8.4

miR-450a-5p	21.5	62.7	45.1	56.1	8.5
miR-1249-3p	0.0	14.9	19.0	14.4	9.3
miR-1198-5p	0.0	3.4	11.1	12.2	9.9
miR-218-5p	0.0	7.2	14.2	13.3	10.2
miR-142a-5p	0.0	7.4	9.5	20.0	11.0
miR-107-3p	0.0	3.4	0.0	25.6	11.1
miR-425-5p	6.0	17.8	17.4	28.9	11.3
miR-3068-5p	9.6	27.5	30.0	32.2	12.6
miR-382-5p	108.8	56.1	99.6	92.2	13.5
miR-340-3p	7.2	14.9	26.9	23.3	14.1
miR-485-5p	0.0	0.0	9.5	18.9	14.2
miR-329-5p	0.0	0.0	7.9	22.2	15.1
miR-322-5p	0.0	0.0	19.0	13.3	16.2
miR-330-3p	20.3	42.9	45.9	50.0	16.3
miR-338-3p	0.0	0.0	22.1	11.1	16.6
miR-129-5p	4.8	7.7	33.2	15.0	17.9
miR-34c-5p	25.1	19.5	52.2	28.9	18.3
miR-1981-5p	0.0	0.0	20.6	16.7	18.6
miR-24-2-5p	9.6	29.8	34.8	42.2	18.8
miR-872-5p	0.0	27.5	34.8	32.2	19.8
miR-338-5p	19.1	11.5	33.2	47.8	25.2
miR-351-3p	21.5	54.4	71.2	61.1	28.2
miR-28a-3p	40.6	80.2	91.7	91.1	31.0
miR-490-3p	7.2	73.9	55.4	91.1	32.7
miR-374c-5p	19.1	16.0	53.8	53.3	36.0
miR-130a-3p	15.5	4.0	45.9	46.7	36.5
let-7a-1-3p	4.2	9.7	42.7	44.5	36.6
miR-542-3p	0.0	6.3	36.4	46.7	38.4
miR-224-5p	206.8	300.0	283.1	303.4	39.8
miR-10a-3p	0.0	18.3	44.3	54.5	40.2
miR-378d	0.0	10.0	41.9	53.9	42.9
miR-30a-5p	880.9	1354.2	1149.7	1176.9	45.8
miR-103-3p	142.8	120.2	174.7	181.1	46.4
miR-185-5p	29.9	51.5	71.2	106.7	48.2
miR-1839-5p	20.3	47.0	50.6	118.9	51.1
miR-181d-5p	99.2	78.4	177.1	104.5	52.0
miR-744-5p	69.3	80.7	137.6	121.1	54.3
miR-378a-3p	548.0	1749.8	1133.1	1276.4	55.8
let-7b-3p	21.5	22.3	94.9	75.6	63.3
let-7d-3p	125.5	254.8	268.8	241.2	64.8
miR-139-5p	121.9	65.3	169.2	167.8	74.9
miR-133a-3p	21.5	34.3	86.2	129.5	79.9
miR-664-3p	25.1	5.2	106.0	101.1	88.4
miR-15b-5p	16.7	34.9	115.4	117.8	90.8
miR-24-3p	1642.3	812.8	1337.9	1315.8	99.3



miR-221-3p	70.5	14.3	166.1	123.4	102.3
miR-423-5p	554.6	498.2	667.4	597.9	106.2
miR-708-5p	34.7	64.7	158.1	161.1	110.0
let-7j	378.3	282.3	497.4	418.4	127.6
miR-328-3p	82.5	95.0	232.5	201.2	128.0
miR-129-3p	0.0	29.2	177.1	128.9	138.4
miR-320-3p	176.9	121.4	302.1	306.7	155.2
miR-16-5p	152.4	99.9	282.3	283.4	156.7
miR-361-5p	138.7	166.6	281.5	352.3	164.3
miR-7a-5p	72.3	47.0	240.4	236.7	178.9
miR-30e-3p	29.9	79.6	237.2	260.6	194.2
miR-365-3p	77.7	169.8	234.1	424.0	205.3
miR-98-5p	87.3	180.9	332.1	372.3	218.1
miR-29a-3p	163.8	217.6	457.0	423.4	249.6
miR-335-5p	199.6	91.6	392.2	452.3	276.6
miR-30a-3p	49.0	144.9	379.5	400.6	293.2
miR-7b-5p	124.3	111.1	442.8	423.4	315.4
miR-455-3p	175.7	234.2	512.4	663.5	383.0
miR-30d-5p	1436.7	1019.8	1764.9	1601.4	454.9
miR-146a-5p	192.4	399.1	786.0	1023.5	609.0
miR-30b-5p	66.9	114.5	838.2	740.1	698.4
miR-143-5p	279.7	463.8	950.4	1373.6	790.3
miR-26b-5p	187.7	218.0	1208.2	1165.0	983.8
miR-23b-3p	1840.1	1523.1	2422.8	2931.7	995.6
miR-30e-5p	388.5	795.3	1654.2	1688.1	1079.3
let-7i-5p	1850.9	2589.5	4329.2	3510.1	1699.4
let-7b-5p	4651.4	3523.2	6834.5	5361.6	2010.7
miR-26a-5p	7743.0	7815.9	9871.3	9807.8	2060.1
miR-23a-3p	1470.8	788.5	3025.3	3546.2	2156.1
miR-30c-5p	577.3	644.2	4022.4	4096.4	3448.6
let-7a-5p	6110.2	8602.1	10787.3	11192.5	3633.8
let-7d-5p	1695.3	2154.6	6216.6	6043.4	4205.0
let-7g-5p	2589.5	3695.5	7371.1	7998.5	4542.3
let-7c-5p	6305.1	5867.0	12948.8	12437.4	6607.1
miR-145a-5p	3563.1	6025.9	67932.3	91840.1	75091.7

**Supplementary Table 2.** Clinical characterization of patients with idiopathic and/or diabetic gastroparesis

Parameters	Healthy (n=18)	Idiopathic gastroparesis (n=14)	Diabetic gastroparesis (n=2)
Age (mean ± SEM)	45.1 ± 14.2	39.2 ± 3.56	60.2 ± 14.2
Gender (M:F)	0.39:0.61	0.22:0.78	1:1
BMI	26.9 ± 4.56	25.6 ± 1.1	24.6 ± 3.06
GES %2hr	-	59 ± 5	39.6 ± 7
GES %4hr	-	32 ± 5	15 ± 4
A1C	5.6 ± 0.83	5.2 ± 0.06	8.4 ± 2.16
Scoring Abdominal pain (0-5)	0	2.3 ± 1.2	-
GCSI-dd Aggregate	-	2.3 ± 0.18	-
GCSI-dd Nausea/Vomit	-	1.09 ± 0.16	-
GCSI-dd Fullness/Satiety	-	3.10 ± 0.22	-
GCSI-dd Bloating/Abd pain	-	2.43 ± 0.32	-

**Supplementary Table 3.** Expression levels of miRNAs in blood plasma samples collected from healthy control subjects (HC, n=2), idiopathic gastroparesis high insulin patients (IG-H, n=2), idiopathic gastroparesis low insulin patients (IG-L, n=2), and diabetic gastroparesis patients (DG, n=2) obtained by miRNA-seq

miRNA Name	Normalized Reads (Number)								Change of Reads (Number)							
	HC1	HC2	IG-H1	IG-H2	IG-L1	IG-L2	DG1	DG2	HC1	HC2	IG-H1	IG-H2	IG-L1	IG-L2	DG1	DG2
let-7a-2-3p	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0
let-7a-3p	1752.5	2189.0	1345.6	1687.3	1362.4	1761.4	1289.2	1530.5	-218.2	218.2	-625.2	-283.5	-608.4	-209.4	-681.6	-440.3
let-7a-5p	12089.7	11115.5	17102.2	13988.6	19944.5	14468.3	20675.0	23350.8	487.1	-487.1	5499.6	2386.1	8341.9	2865.7	9072.4	11748.2
let-7b-3p	350.6	429.0	345.2	375.1	336.8	421.0	319.2	329.9	-39.2	39.2	-44.6	-14.7	-53.0	31.2	-70.6	-59.9
let-7b-5p	6543.2	6724.5	12581.4	7582.7	14706.2	11874.2	15930.8	17532.7	-90.7	90.7	5947.5	948.8	8072.4	5240.3	9296.9	10898.8
let-7c-3p	35.7	51.0	27.9	44.1	26.6	22.9	32.8	26.2	-7.6	7.6	-15.4	0.7	-16.8	-20.5	-10.6	-17.2
let-7c-5p	6271.2	5275.5	7664.9	7165.1	8875.9	6660.9	9170.3	10502.0	497.8	-497.8	1891.6	1391.8	3102.6	887.6	3397.0	4728.7
let-7d-3p	1559.1	2152.9	2627.1	1429.1	2671.9	2976.4	2739.7	2760.2	-296.9	296.9	771.0	-426.9	815.9	1120.4	883.7	904.2
let-7d-5p	7099.3	7232.9	9813.1	7820.4	11855.4	8845.5	11380.9	12029.0	-66.8	66.8	2647.0	654.3	4689.3	1679.4	4214.8	4862.9
let-7e-3p	79.7	88.0	48.9	50.8	38.6	42.1	27.8	39.8	-4.1	4.1	-35.0	-33.0	-45.3	-41.8	-56.0	-44.1
let-7e-5p	753.2	660.6	1340.7	856.5	1451.1	1049.5	1546.9	1667.7	46.3	-46.3	633.8	149.6	744.2	342.6	840.0	960.8
let-7f-1-3p	136.1	121.0	183.6	113.0	176.5	202.4	186.0	224.1	7.6	-7.6	55.0	-15.6	48.0	73.8	57.4	95.6
let-7f-2-3p	582.5	676.1	507.0	532.7	556.0	622.2	523.4	512.3	-46.8	46.8	-122.3	-96.6	-73.3	-7.1	-105.9	-117.0
let-7f-5p	31068.5	28211.6	68777.4	34764.5	78646.6	55069.0	75967.3	84434.8	1428.5	-1428.5	39137.4	5124.4	49006.6	25429.0	46327.2	54794.7
let-7g-3p	17.9	20.0	229.5	16.9	290.5	259.2	294.4	286.2	-1.1	1.1	210.5	-2.0	271.6	240.3	275.4	267.3
let-7g-5p	90168.8	79510.2	210846.5	91764.8	258706.0	160957.6	230958.4	302196.1	5329.3	-5329.3	126007.0	6925.3	173866.5	76118.1	146118.9	217356.6
let-7i-3p	126.5	172.0	344.2	139.0	386.5	394.4	422.6	365.8	-22.7	22.7	195.0	-10.3	237.2	245.1	273.4	216.5
let-7i-5p	30357.2	28285.4	48164.6	32001.4	52168.0	38300.9	48649.1	62525.1	1035.9	-1035.9	18843.3	2680.0	22846.7	8979.6	19327.7	33203.7
miR-1-3p	1197568.1	786538.6	544298.3	782369.2	266289.8	208702.3	255561.2	305468.6	205514.7	-205514.7	-447755.0	-209684.2	-725763.6	-783351.1	-736492.1	-686584.7
miR-1-5p	23.4	18.0	57.9	24.9	24.9	34.7	26.9	30.1	2.7	-2.7	37.2	4.2	4.2	14.0	6.2	9.4
miR-100-5p	11820.1	10682.9	4612.6	9384.3	5298.8	3783.2	4314.0	4149.5	568.6	-568.6	-6638.9	-1867.2	-5952.7	-7468.3	-6937.5	-7101.9
miR-101-3p	34885.5	31625.8	66706.2	36575.7	83171.2	83505.1	98553.1	81364.9	1629.9	-1629.9	33450.6	3320.1	49915.6	50249.5	65297.5	48109.3
miR-101-5p	0.0	10.0	52.9	18.1	53.1	95.3	76.6	40.7	-5.0	5.0	47.9	13.1	48.1	90.3	71.6	35.7
miR-103a-2-5p	0.0	0.0	0.0	5.6	5.1	7.4	10.9	0.0	0.0	0.0	0.0	5.6	5.1	7.4	10.9	0.0
miR-103a-3p	8471.0	7319.3	3194.1	8422.3	3142.8	3417.8	3254.5	3607.4	575.9	-575.9	-4701.0	527.2	-4752.4	-4477.4	-4640.6	-4287.8
miR-106a-5p	2675.8	2470.4	2369.8	2958.1	2303.4	2558.0	2347.9	2400.6	102.7	-102.7	-203.3	385.0	-269.7	-15.1	-225.2	-172.5
miR-106b-3p	794.7	735.0	171.6	644.0	136.3	177.3	150.2	145.5	29.9	-29.9	-593.2	-120.9	-628.6	-587.6	-614.7	-619.3
miR-106b-5p	4524.8	4132.8	6147.1	4617.3	5720.8	6206.1	6688.7	5386.6	196.0	-196.0	1818.3	288.5	1392.0	1877.3	2360.0	1057.8
miR-107	2430.4	2485.5	1690.5	2445.9	1985.5	1985.0	1919.0	2031.3	-27.6	27.6	-767.4	-12.0	-472.5	-473.0	-539.0	-426.7
miR-10a-3p	237.9	279.0	249.4	223.7	189.4	199.4	239.7	184.3	-20.6	20.6	-9.0	-34.7	-69.0	-59.0	-18.8	-74.1
miR-10a-5p	42542.3	39025.9	22461.2	32946.4	21720.5	20410.6	21483.4	31341.4	1758.2	-1758.2	-18322.9	-7837.7	-19063.6	-20373.5	-19300.7	-9442.7
miR-10b-3p	33.0	23.0	0.0	35.0	0.0	0.0	0.0	0.0	5.0	-5.0	-28.0	7.0	-28.0	-28.0	-28.0	-28.0
miR-10b-5p	6235.2	5992.7	2620.1	4961.3	1028.3	1109.3	1079.0	1592.1	121.3	-121.3	-3493.9	-1152.6	-5085.6	-5004.6	-5034.9	-4521.8
miR-1180-3p	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4
miR-1197	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0
miR-122-3p	1905.6	1985.9	1482.6	2033.6	2904.1	3082.0	3190.2	2473.0	-40.1	40.1	-463.1	87.8	958.4	1136.2	1244.5	527.3
miR-122-5p	153765.4	143244.1	868373.1	154302.7	1206260.9	917617.7	1158388.6	1454197.6	5260.6	-5260.6	719868.4	5798.0	1057756.1	769113.0	1009883.9	1305692.9
miR-124-3p	5.0	15.7	30.9	22.2	42.0	42.3	44.1	40.1	-5.3	5.3	20.6	11.9	31.6	32.0	33.7	29.7
miR-1247-3p	0.0	0.0	0.0	0.0	4.3	3.7	0.0	0.0	0.0	0.0	0.0	0.0	4.3	3.7	0.0	0.0

miR-1247-5p	0.0	0.0	5.0	0.0	6.0	4.4	5.0	0.0	0.0	0.0	5.0	0.0	6.0	4.4	5.0	0.0
miR-1248	160.9	159.0	45.9	212.4	34.3	82.7	35.8	25.2	0.9	-0.9	-114.0	52.5	-125.7	-77.2	-124.1	-134.7
miR-1249-3p	24.7	25.0	74.8	23.7	89.1	112.3	113.4	98.0	-0.1	0.1	50.0	-1.1	64.2	87.4	88.5	73.1
miR-125a-3p	20.6	17.0	33.9	31.6	29.1	23.6	33.8	22.3	1.8	-1.8	15.1	12.8	10.3	4.8	15.0	3.5
miR-125a-5p	5939.6	7244.6	1809.9	5198.0	1719.0	2001.5	1888.5	1694.0	-652.5	652.5	-4782.2	-1394.1	-4873.1	-4590.6	-4703.6	-4898.1
miR-125b-1-3p	133.4	149.0	68.8	88.1	52.3	40.6	45.7	68.9	-7.8	7.8	-72.3	-53.1	-88.9	-100.6	-95.4	-72.3
miR-125b-5p	20211.1	19924.9	3171.3	13522.0	2917.0	3264.4	3099.7	2533.2	143.1	-143.1	-16896.7	-6546.0	-17151.0	-16803.6	-16968.3	-17534.8
miR-126-3p	157428.1	134624.6	144720.9	139821.6	134260.7	117966.7	138335.6	133138.7	11401.8	-11401.8	-1305.5	-6204.8	-11765.6	-28059.7	-7690.8	-12887.7
miR-126-5p	31470.2	33763.1	48247.9	31306.6	48345.2	46626.3	49743.0	41700.2	-1146.5	1146.5	15631.3	-1310.1	15728.6	14009.6	17126.3	9083.5
miR-1260a	419.3	309.0	108.8	641.1	109.7	96.4	109.4	34.0	55.2	-55.2	-255.4	277.0	-254.5	-267.8	-254.8	-330.2
miR-1260b	881.3	614.0	163.6	718.0	132.0	146.6	152.2	71.8	133.7	-133.7	-584.0	-29.7	-615.7	-601.0	-595.5	-675.8
miR-1268a	19.9	41.5	3.0	27.7	0.0	8.5	5.0	0.0	-10.8	10.8	-27.7	-3.0	-30.7	-22.2	-25.7	-30.7
miR-1268b	6.2	5.5	3.0	5.1	0.0	2.6	0.0	0.0	0.3	-0.3	-2.9	-0.8	-5.8	-3.3	-5.8	-5.8
miR-127-3p	1467.0	1569.9	1039.6	1229.2	984.6	993.4	915.9	934.3	-51.4	51.4	-478.8	-289.3	-533.9	-525.1	-602.6	-584.2
miR-127-5p	127.9	128.0	186.6	149.1	229.7	240.0	189.9	195.0	-0.1	0.1	58.6	21.2	101.7	112.1	62.0	67.1
miR-128-1-5p	0.0	13.0	9.0	11.3	0.0	0.0	0.0	0.0	-6.5	6.5	2.5	4.8	-6.5	-6.5	-6.5	-6.5
miR-128-3p	134.1	148.0	30.4	108.5	25.7	59.8	45.2	25.2	-7.0	7.0	-110.6	-32.6	-115.3	-81.2	-95.8	-115.8
miR-129-1-3p	20.6	17.0	11.0	12.4	17.1	20.7	34.8	34.9	1.8	-1.8	-7.8	-6.4	-1.7	1.9	16.0	16.1
miR-129-2-3p	61.9	63.0	82.8	70.0	84.8	109.3	69.6	89.3	-0.6	0.6	20.4	7.6	22.4	46.9	7.2	26.8
miR-129-5p	16.5	17.5	20.0	11.3	32.6	34.0	17.4	31.0	-0.5	0.5	3.0	-5.7	15.6	17.0	0.4	14.0
miR-1296-5p	30.2	49.0	14.0	29.4	0.0	28.8	19.9	17.5	-9.4	9.4	-25.7	-10.2	-39.6	-10.8	-19.7	-22.2
miR-1306-5p	22.0	27.0	5.0	23.7	0.0	0.0	0.0	0.0	-2.5	2.5	-19.5	-0.8	-24.5	-24.5	-24.5	-24.5
miR-130a-3p	1116.4	1211.9	2689.9	1211.1	3143.2	3115.2	3396.1	3239.5	-47.8	47.8	1525.7	46.9	1979.0	1951.0	2231.9	2075.3
miR-130a-5p	23.4	20.0	31.9	14.7	30.0	35.5	16.9	41.7	1.7	-1.7	10.2	-7.0	8.3	13.8	-4.8	20.0
miR-130b-3p	37.1	71.0	162.6	58.7	155.1	152.9	123.3	195.0	-16.9	16.9	108.6	4.7	101.0	98.8	69.3	141.0
miR-130b-5p	35.7	61.0	10.0	31.6	9.4	6.6	0.0	4.9	-12.6	12.6	-38.4	-16.7	-38.9	-41.7	-48.4	-43.5
miR-132-3p	129.2	154.0	192.6	125.4	216.8	154.4	206.8	188.2	-12.4	12.4	50.9	-16.2	75.2	12.7	65.2	46.6
miR-132-5p	30.2	42.0	22.0	28.2	18.0	23.6	18.9	14.6	-5.9	5.9	-14.2	-7.9	-18.1	-12.5	-17.2	-21.6
miR-1323	0.0	0.0	0.0	0.0	0.0	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3	0.0	0.0
miR-133a-3p	9954.8	11043.2	6893.4	10493.5	3418.9	3690.8	3680.0	3565.6	-544.2	544.2	-3605.6	-5.5	-7080.2	-6808.2	-6819.0	-6933.4
miR-133a-5p	2322.9	2088.9	1628.8	2194.5	940.9	921.3	982.5	892.1	117.0	-117.0	-577.1	-11.4	-1265.0	-1284.6	-1223.4	-1313.8
miR-133b	1037.1	1201.3	984.8	1168.5	517.3	536.4	516.1	448.9	-82.1	82.1	-134.4	49.3	-601.9	-582.8	-603.1	-670.3
miR-134-3p	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0
miR-134-5p	67.4	55.0	118.7	58.7	175.7	139.6	234.7	141.6	6.2	-6.2	57.5	-2.4	114.5	78.4	173.5	80.5
miR-135a-5p	103.1	94.0	108.8	107.3	72.0	80.9	85.0	91.2	4.6	-4.6	10.2	8.8	-26.6	-17.7	-13.5	-7.4
miR-135b-5p	0.0	5.0	22.0	7.9	8.6	12.6	7.0	12.6	-2.5	2.5	19.5	5.4	6.1	10.1	4.5	10.1
miR-136-3p	1256.7	1145.9	1544.5	1023.6	1457.6	1486.0	1394.2	1392.2	55.4	-55.4	343.2	-177.7	256.3	284.7	192.9	190.9
miR-136-5p	30.2	19.0	76.8	31.6	74.6	62.0	79.6	96.0	5.6	-5.6	52.2	7.0	49.9	37.4	54.9	71.4
miR-137-3p	258.5	175.0	695.4	264.4	867.2	838.3	886.1	835.3	41.7	-41.7	478.7	47.6	650.5	621.5	669.3	618.6
miR-137-5p	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
miR-138-5p	37.8	32.0	70.8	23.7	93.8	99.3	97.0	92.2	2.9	-2.9	35.9	-11.2	58.9	64.4	62.1	57.3
miR-139-3p	17.9	26.0	16.0	21.5	7.7	12.6	9.0	22.3	-4.1	4.1	-6.0	-0.5	-14.2	-9.4	-13.0	0.4
miR-139-5p	1204.4	1335.9	883.0	1265.3	800.4	840.5	879.1	870.3	-65.8	65.8	-387.2	-4.8	-469.8	-429.7	-391.1	-399.9
miR-140-3p	12517.1	10731.4	9853.7	10492.0	9706.4	9279.2	9490.1	8783.2	892.9	-892.9	-1770.6	-1132.3	-1917.9	-2345.1	-2134.1	-2841.1
miR-140-5p	1080.7	1087.9	1375.9	1208.8	1300.0	1325.7	1445.9	1558.1	-3.6	3.6	291.6	124.5	215.6	241.4	361.6	473.8

miR-141-3p	3634.6	3661.8	5844.8	3741.2	6424.0	7127.4	7170.6	7615.6	-13.6	13.6	2196.6	93.0	2775.8	3479.2	3522.4	3967.4
miR-141-5p	28.9	28.0	29.9	29.4	38.6	46.5	42.8	34.9	0.4	-0.4	1.5	0.9	10.1	18.1	14.3	6.5
miR-142-3p	8209.6	7042.6	6140.1	10077.4	2683.0	2906.9	3237.0	2948.4	583.5	-583.5	-1486.0	2451.3	-4943.1	-4719.1	-4389.1	-4677.6
miR-142-5p	60139.8	52483.1	41237.8	52009.3	15542.1	14867.1	14507.2	11501.7	3828.3	-3828.3	-15073.7	-4302.2	-40769.4	-41444.4	-41804.2	-44809.7
miR-143-3p	3254629.9	2144140.2	1965522.1	1984982.2	1919795.7	1501545.0	1912538.6	1905224.5	555244.8	-555244.8	-733862.9	-714402.8	-779589.3	-1197840.0	-786846.5	-794160.6
miR-143-5p	5758.1	4915.7	6652.0	5013.8	6989.1	6515.5	7356.0	5806.7	421.2	-421.2	1315.0	-323.1	1652.2	1178.6	2019.1	469.7
miR-144-3p	6584.4	7065.6	8392.0	5887.1	6517.8	5488.9	7341.1	5383.6	-240.6	240.6	1567.0	-937.9	-307.2	-1336.1	516.1	-1441.4
miR-144-5p	2395.1	2496.9	2827.6	2874.1	2407.1	2509.6	2522.0	2730.1	-50.9	50.9	381.6	428.1	-38.9	63.6	76.0	284.2
miR-145-3p	17736.3	18728.0	19253.5	15978.1	18171.1	17488.9	17177.3	17853.6	-495.8	495.8	1021.3	-2254.0	-61.0	-743.2	-1054.8	-378.5
miR-145-5p	64517.5	76116.8	26444.2	66928.8	24927.1	37576.8	25345.8	28365.8	-5799.7	5799.7	-43872.9	-3388.3	-45390.0	-32740.4	-44971.3	-41951.4
miR-1469	1391.4	1944.9	191.6	1291.3	24.0	31.8	37.8	10.7	-276.7	276.7	-1476.6	-376.8	-1644.2	-1636.4	-1630.4	-1657.5
miR-146a-3p	9.6	7.0	0.0	0.0	11.1	8.1	5.0	4.9	1.3	-1.3	-8.3	-8.3	2.8	-0.2	-3.3	-3.5
miR-146a-5p	11022.6	9540.5	13481.0	11019.6	11184.6	8671.3	10712.8	12704.3	741.1	-741.1	3199.5	738.1	903.1	-1610.2	431.3	2422.7
miR-146b-5p	1993.6	1697.9	1969.0	1873.1	1771.3	1403.2	1639.4	2247.5	147.9	-147.9	123.3	27.4	-74.5	-442.5	-206.4	401.7
miR-147b-3p	198.0	187.0	167.6	230.5	90.8	85.7	90.5	80.5	5.5	-5.5	-24.9	38.0	-101.7	-106.8	-102.0	-112.0
miR-147b-5p	52.2	56.0	37.9	59.9	14.6	35.5	15.9	10.7	-1.9	1.9	-16.2	5.8	-39.6	-18.7	-38.2	-43.4
miR-148a-3p	106051.3	116349.1	87320.6	92653.3	100500.4	94345.2	105292.1	101396.6	-5148.9	5148.9	-23879.6	-18546.9	-10699.8	-16855.0	-5908.1	-9803.6
miR-148a-5p	662.7	719.0	718.4	568.3	781.5	793.9	788.6	794.6	-28.1	28.1	27.5	-122.6	90.7	103.1	97.8	103.8
miR-148b-3p	4407.3	5232.2	1090.0	4111.2	1115.7	1145.9	1121.8	1272.9	-412.5	412.5	-3729.7	-708.6	-3704.0	-3673.9	-3698.0	-3546.8
miR-148b-5p	86.6	75.0	126.7	70.0	134.5	135.9	141.2	160.1	5.8	-5.8	45.9	-10.8	53.7	55.1	60.4	79.3
miR-149-5p	919.8	978.9	438.0	829.2	389.9	369.3	336.1	273.6	-29.6	29.6	-511.4	-120.1	-559.5	-580.1	-613.3	-675.8
miR-150-3p	64.6	69.0	25.9	52.0	4.3	0.0	0.0	0.0	-2.2	2.2	-40.9	-14.8	-62.5	-66.8	-66.8	-66.8
miR-150-5p	4122.0	4508.8	1143.4	4005.0	405.3	510.3	407.7	335.7	-193.4	193.4	-3171.9	-310.4	-3910.0	-3805.0	-3907.6	-3979.7
miR-151a-3p	607.7	668.0	845.1	555.8	960.6	915.1	894.0	948.9	-30.1	30.1	207.3	-82.0	322.8	277.2	256.2	311.0
miR-151b	7843.2	7174.6	3100.0	7094.8	2646.2	2660.6	2878.0	2330.4	334.3	-334.3	-4408.9	-414.0	-4862.7	-4848.2	-4630.9	-5178.5
miR-152-3p	26403.7	22342.8	25365.2	24146.2	29916.2	31194.2	32099.7	26861.9	2030.5	-2030.5	991.9	-227.0	5542.9	6821.0	7726.5	2488.7
miR-152-5p	112.7	79.0	115.7	53.1	174.8	181.7	113.4	235.8	16.9	-16.9	19.9	-42.8	78.9	85.8	17.5	139.9
miR-153-3p	22.0	26.5	77.3	18.1	94.7	91.9	92.5	87.8	-2.3	2.3	53.1	-6.2	70.4	67.7	68.2	63.6
miR-154-3p	6.9	21.0	20.0	21.5	26.6	40.6	21.9	27.2	-7.1	7.1	6.0	7.5	12.6	26.7	7.9	13.2
miR-154-5p	19.2	28.0	27.9	27.1	54.0	45.8	41.8	35.9	-4.4	4.4	4.3	3.5	30.4	22.2	18.1	12.3
miR-15a-3p	119.6	103.0	140.7	82.5	162.0	168.4	132.3	147.5	8.3	-8.3	29.4	-28.8	50.7	57.1	21.0	36.2
miR-15a-5p	1324.0	1097.9	1212.3	1555.7	1575.0	1520.7	1977.0	1653.2	113.0	-113.0	1.3	344.7	364.0	309.7	766.0	442.2
miR-15b-3p	382.2	477.0	176.6	488.1	205.7	195.0	171.0	143.6	-47.4	47.4	-253.0	58.5	-223.9	-234.6	-258.6	-286.0
miR-15b-5p	1209.9	1417.9	145.7	1282.3	207.4	211.2	240.7	177.5	-104.0	104.0	-1168.2	-31.7	-1106.5	-1102.7	-1073.3	-1136.4
miR-16-3p	427.6	408.0	478.9	439.5	496.2	536.2	517.1	492.9	9.8	-9.8	61.1	21.7	78.4	118.4	99.3	75.1
miR-16-5p	12678.7	10790.9	8946.8	14095.4	9349.1	10471.2	10395.1	10481.6	943.9	-943.9	-2788.0	2360.6	-2385.7	-1263.6	-1339.7	-1253.2
miR-17-3p	228.2	283.0	152.7	198.8	156.0	186.1	160.1	140.7	-27.4	27.4	-103.0	-56.8	-99.6	-69.5	-95.5	-114.9
miR-17-5p	2675.8	2470.4	2369.8	2958.1	2303.4	2558.0	2347.9	2400.6	102.7	-102.7	-203.3	385.0	-269.7	-15.1	-225.2	-172.5
miR-181a-3p	231.0	254.0	125.7	188.7	113.1	136.6	109.4	114.5	-11.5	11.5	-116.8	-53.8	-129.4	-105.9	-133.1	-128.0
miR-181a-5p	1418.9	1430.4	264.4	1469.2	193.2	255.5	193.4	210.0	-5.8	5.8	-1160.3	44.6	-1231.4	-1169.1	-1231.2	-1214.6
miR-181b-3p	0.0	11.0	0.0	9.0	0.0	0.0	0.0	0.0	-5.5	5.5	-5.5	3.5	-5.5	-5.5	-5.5	-5.5
miR-181b-5p	305.0	287.5	179.1	320.8	129.4	147.7	140.2	148.4	8.8	-8.8	-117.1	24.6	-166.8	-148.5	-156.0	-147.8
miR-181c-3p	187.0	146.0	40.9	113.0	16.3	28.1	27.8	27.2	20.5	-20.5	-125.6	-53.5	-150.2	-138.4	-138.6	-139.3
miR-181c-5p	503.2	534.0	472.9	464.3	399.3	435.0	385.9	359.0	-15.4	15.4	-45.7	-54.3	-119.3	-83.6	-132.7	-159.6
miR-181d-5p	162.7	198.0	34.9	188.1	31.7	40.6	34.8	36.9	-17.6	17.6	-145.4	7.8	-148.6	-139.7	-145.5	-143.5

miR-182-3p	0.0	5.0	0.0	0.0	0.0	3.7	0.0	0.0	-2.5	2.5	-2.5	-2.5	-2.5	1.2	-2.5	-2.5
miR-182-5p	3255.8	3262.8	4654.5	3072.9	4965.0	5300.6	5016.1	6489.7	-3.5	3.5	1395.2	-186.4	1705.7	2041.3	1756.8	3230.4
miR-183-3p	6.9	8.0	0.0	0.0	4.3	0.0	0.0	0.0	-0.6	0.6	-7.4	-7.4	-3.2	-7.4	-7.4	-7.4
miR-183-5p	1559.1	1899.9	2245.9	1380.6	2196.3	2240.8	2131.1	2402.2	-170.4	170.4	516.4	-349.0	466.8	511.2	401.6	672.7
miR-184	93.5	54.0	172.6	328.8	1913.5	166.2	367.0	136.8	19.7	-19.7	98.9	255.0	1839.8	92.4	293.2	63.1
miR-185-3p	0.0	8.0	15.0	0.0	8.6	19.9	17.9	0.0	-4.0	4.0	11.0	-4.0	4.6	15.9	13.9	-4.0
miR-185-5p	5007.4	4272.8	7488.1	4870.4	7816.0	7293.2	7702.1	9219.8	367.3	-367.3	2848.0	230.3	3175.9	2653.1	3062.0	4579.7
miR-186-5p	4893.3	4605.7	3933.1	4523.5	3591.4	4065.7	3296.6	4195.1	143.8	-143.8	-816.4	-226.0	-1158.1	-683.8	-1452.9	-554.4
miR-187-3p	110.0	99.0	55.9	135.6	66.8	93.1	59.7	71.8	5.5	-5.5	-48.6	31.1	-37.7	-11.4	-44.8	-32.7
miR-188-5p	0.0	0.0	14.0	5.6	12.9	17.7	14.9	12.6	0.0	0.0	14.0	5.6	12.9	17.7	14.9	12.6
miR-18a-3p	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0
miR-18a-5p	225.5	276.0	375.2	346.8	353.1	394.0	393.3	418.2	-25.3	25.3	124.4	96.1	102.3	143.3	142.6	167.4
miR-18b-5p	0.0	0.0	11.0	0.0	0.0	3.3	7.5	0.0	0.0	0.0	11.0	0.0	0.0	3.3	7.5	0.0
miR-190a-3p	0.0	0.0	12.0	5.6	31.7	17.7	22.9	17.5	0.0	0.0	12.0	5.6	31.7	17.7	22.9	17.5
miR-190a-5p	122.4	138.0	259.4	179.6	367.6	274.0	354.0	458.9	-7.8	7.8	129.2	49.5	237.4	143.8	223.8	328.7
miR-190b-5p	0.0	0.0	0.0	0.0	10.3	0.0	6.0	6.8	0.0	0.0	0.0	0.0	10.3	0.0	6.0	6.8
miR-191-3p	8.2	14.0	11.0	5.6	0.0	3.7	0.0	5.8	-2.9	2.9	-0.1	-5.5	-11.1	-7.4	-11.1	-5.3
miR-191-5p	22202.0	19767.9	7732.5	21021.3	8133.1	7532.5	7341.1	9133.5	1217.0	-1217.0	-13252.4	36.4	-12851.9	-13452.5	-13643.8	-11851.5
miR-192-3p	185.6	201.0	775.2	192.1	1003.5	1006.6	996.5	1045.9	-7.7	7.7	581.9	-1.2	810.2	813.3	803.1	852.6
miR-192-5p	428947.4	420605.4	292064.3	339612.7	301890.2	296566.7	285734.2	316862.1	4171.0	-4171.0	-132712.1	-85163.7	-122886.2	-128209.7	-139042.2	-107914.2
miR-193a-3p	70.1	91.0	525.8	92.6	640.1	645.5	675.2	544.3	-10.4	10.4	445.3	12.1	559.6	564.9	594.7	463.7
miR-193a-5p	8.2	12.0	0.0	12.4	0.0	0.0	0.0	0.0	-1.9	1.9	-10.1	2.3	-10.1	-10.1	-10.1	-10.1
miR-193b-3p	88.0	113.0	114.7	80.2	75.4	187.6	114.4	145.5	-12.5	12.5	14.2	-20.3	-25.1	87.1	13.9	45.0
miR-194-3p	180.1	186.0	302.3	180.8	438.7	404.7	445.5	461.8	-2.9	2.9	119.3	-2.3	255.7	221.7	262.5	278.8
miR-194-5p	104325.1	84406.4	85083.2	89888.2	100659.3	80404.7	101777.2	92654.6	9959.4	-9959.4	-9282.6	-4477.5	6293.6	-13961.1	7411.4	-1711.1
miR-195-3p	33.0	33.0	29.9	30.5	37.7	17.0	26.9	25.2	0.0	0.0	-3.1	-2.5	4.7	-16.0	-6.1	-7.8
miR-195-5p	3352.0	3147.8	3202.8	3324.9	3276.0	3127.8	3459.7	3721.7	102.1	-102.1	-47.2	74.9	26.1	-122.2	209.8	471.8
miR-196a-5p	138.9	168.0	163.1	170.0	103.7	77.2	104.9	135.3	-14.6	14.6	9.7	16.6	-49.7	-76.2	-48.5	-18.1
miR-196b-3p	0.0	0.0	0.0	5.6	0.0	4.4	0.0	4.9	0.0	0.0	0.0	5.6	0.0	4.4	0.0	4.9
miR-196b-5p	499.1	495.0	513.8	537.8	371.0	326.4	348.1	503.5	2.1	-2.1	16.8	40.7	-126.0	-170.6	-149.0	6.5
miR-197-3p	97.6	109.0	41.9	114.1	0.0	107.8	86.5	81.5	-5.7	5.7	-61.4	10.8	-103.3	4.5	-16.8	-21.8
miR-199a-3p	9216.9	9228.5	10276.8	8804.5	10932.7	10559.3	10702.7	10110.5	-5.8	5.8	1054.1	-418.2	1710.0	1336.6	1480.0	887.8
miR-199a-5p	9051.0	8022.1	1875.9	6840.8	1708.4	2202.0	1783.2	1798.9	514.5	-514.5	-6660.6	-1695.7	-6828.1	-6334.5	-6753.3	-6737.6
miR-199b-5p	3295.7	3127.8	4713.0	3254.4	5164.4	5871.5	5488.1	5569.6	83.9	-83.9	1501.3	42.7	1952.7	2659.7	2276.4	2357.9
miR-19a-3p	508.7	525.0	541.8	797.6	609.3	840.1	668.3	1068.2	-8.1	8.1	24.9	280.8	92.4	323.3	151.4	551.3
miR-19b-1-5p	0.0	0.0	0.0	0.0	4.3	8.9	7.0	4.9	0.0	0.0	0.0	0.0	4.3	8.9	7.0	4.9
miR-19b-3p	1643.0	1425.9	1678.7	2171.4	1800.0	1793.2	1951.6	2395.9	108.5	-108.5	144.2	636.9	265.5	258.7	417.2	861.4
miR-200a-3p	60367.3	54661.0	109701.5	60205.1	120697.7	128308.3	125533.4	131401.5	2853.2	-2853.2	52187.4	2690.9	63183.6	70794.1	68019.2	73887.4
miR-200a-5p	536.2	554.0	549.8	468.8	641.8	653.6	571.8	487.0	-8.9	8.9	4.7	-76.2	96.7	108.5	26.7	-58.1
miR-200b-3p	47878.4	40785.8	78815.3	43879.0	84183.2	82217.5	80705.0	91740.7	3546.3	-3546.3	34483.3	-453.0	39851.2	37885.4	36373.0	47408.6
miR-200b-5p	515.6	409.0	388.1	396.5	457.6	381.8	436.6	386.1	53.3	-53.3	-74.2	-65.7	-4.7	-80.5	-25.7	-76.1
miR-200c-3p	10766.9	8961.5	11656.7	10481.3	11344.4	11693.9	11060.9	12840.1	902.7	-902.7	1792.5	617.1	1480.2	1829.7	1196.7	2975.9
miR-200c-5p	0.0	0.0	11.0	10.2	6.0	5.2	7.0	6.8	0.0	0.0	11.0	10.2	6.0	5.2	7.0	6.8
miR-203a-3p	26928.9	24477.7	11887.1	26389.9	7838.3	6838.3	8050.2	7909.1	1225.6	-1225.6	-13816.2	686.6	-17865.0	-18865.0	-17653.1	-17794.2
miR-203a-5p	0.0	15.0	13.0	7.9	17.1	5.2	0.0	13.6	-7.5	7.5	5.5	0.4	9.6	-2.3	-7.5	6.1

miR-203b-3p	143.0	144.0	208.5	151.4	207.4	185.4	198.9	232.8	-0.5	0.5	65.0	7.9	63.9	41.9	55.4	89.4
miR-204-5p	118.2	138.0	48.9	105.1	54.8	56.1	47.7	53.4	-9.9	9.9	-79.2	-23.1	-73.3	-72.0	-80.4	-74.8
miR-205-3p	52.2	37.0	32.9	47.4	24.9	25.8	27.8	29.1	7.6	-7.6	-11.7	2.8	-19.8	-18.8	-16.8	-15.5
miR-205-5p	1849.2	2023.9	272.4	1959.0	191.1	237.1	209.8	186.3	-87.3	87.3	-1664.2	22.4	-1745.5	-1699.5	-1726.7	-1750.3
miR-206	13.7	3.3	196.2	13.2	239.7	184.6	236.7	316.3	5.2	-5.2	187.7	4.6	231.1	176.1	228.1	307.7
miR-208a-3p	796.1	675.0	728.4	669.9	530.4	479.3	565.8	584.1	60.6	-60.6	-7.2	-65.6	-205.1	-256.2	-169.7	-151.5
miR-208a-5p	24.7	33.0	44.9	49.7	26.6	11.1	24.9	35.9	-4.1	4.1	16.0	20.8	-2.3	-17.8	-4.0	7.0
miR-208b-3p	17.9	14.0	19.0	15.8	13.7	6.6	22.9	19.4	1.9	-1.9	3.0	-0.1	-2.2	-9.3	6.9	3.5
miR-20a-3p	15.1	42.0	39.9	30.5	39.4	36.2	33.8	51.4	-13.4	13.4	11.3	1.9	10.9	7.6	5.3	22.9
miR-20a-5p	15283.0	12190.3	12110.8	15832.7	11756.6	13898.8	12135.4	15012.2	1546.3	-1546.3	-1625.9	2096.1	-1980.1	162.1	-1601.3	1275.6
miR-20b-5p	46.7	33.0	109.3	56.1	161.5	181.7	114.4	148.8	6.9	-6.9	69.4	16.2	121.7	141.8	74.5	108.9
miR-21-3p	110.0	144.0	492.9	108.5	608.4	577.5	723.0	592.8	-17.0	17.0	365.9	-18.5	481.4	450.6	596.0	465.8
miR-21-5p	565817.9	475902.8	730471.8	500235.3	826813.7	821694.6	880560.9	906753.3	44957.5	-44957.5	209611.4	-20625.1	305953.3	300834.2	359700.5	385892.9
miR-210-3p	1253.9	1031.9	1218.2	1423.5	1335.1	1435.0	1604.1	1302.0	111.0	-111.0	75.3	280.6	192.2	292.1	461.1	159.1
miR-210-5p	13.7	30.0	0.0	9.0	0.0	3.7	0.0	0.0	-8.1	8.1	-21.9	-12.8	-21.9	-18.2	-21.9	-21.9
miR-2110	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
miR-212-3p	24.7	42.0	23.9	26.0	42.8	48.7	31.8	38.8	-8.6	8.6	-9.4	-7.4	9.5	15.4	-1.6	5.4
miR-212-5p	30.2	27.0	14.0	31.6	22.3	22.9	10.9	21.3	1.6	-1.6	-14.7	3.0	-6.3	-5.7	-17.7	-7.3
miR-214-3p	353.4	380.0	141.7	357.0	164.5	212.0	198.9	183.4	-13.3	13.3	-225.0	-9.7	-202.1	-154.7	-167.8	-183.3
miR-214-5p	30.2	48.0	60.9	44.1	74.6	40.6	82.5	43.7	-8.9	8.9	21.7	4.9	35.4	1.5	43.4	4.5
miR-215-5p	1605.9	1525.4	1471.2	1423.5	1551.9	1538.0	1776.6	1397.6	40.2	-40.2	-94.5	-142.2	-13.8	-27.6	211.0	-168.1
miR-216a-3p	0.0	0.0	5.0	0.0	12.0	14.8	20.9	20.4	0.0	0.0	5.0	0.0	12.0	14.8	20.9	20.4
miR-216a-5p	0.0	0.0	607.6	0.0	916.9	955.7	964.6	920.7	0.0	0.0	607.6	0.0	916.9	955.7	964.6	920.7
miR-216b-3p	0.0	0.0	179.6	0.0	438.7	433.5	474.4	433.7	0.0	0.0	179.6	0.0	438.7	433.5	474.4	433.7
miR-216b-5p	0.0	0.0	280.4	0.0	422.5	562.8	445.5	339.6	0.0	0.0	280.4	0.0	422.5	562.8	445.5	339.6
miR-217-3p	0.0	0.0	35.9	0.0	51.4	55.4	39.8	44.6	0.0	0.0	35.9	0.0	51.4	55.4	39.8	44.6
miR-217-5p	0.0	0.0	2435.5	0.0	3846.7	3923.2	3587.0	3612.1	0.0	0.0	2435.5	0.0	3846.7	3923.2	3587.0	3612.1
miR-218-5p	209.0	223.5	219.0	220.3	239.9	196.5	263.0	223.6	-7.3	7.3	2.8	4.1	23.7	-19.8	46.8	7.4
miR-219a-5p	30.2	29.0	182.6	32.8	251.1	231.2	275.5	275.5	0.6	-0.6	153.0	3.1	221.5	201.5	245.8	245.9
miR-22-3p	58374.4	52223.1	105777.9	51648.9	130161.2	115160.9	140412.0	133635.4	3075.6	-3075.6	50479.1	-3649.9	74862.4	59862.2	85113.2	78336.7
miR-22-5p	1531.6	1564.9	400.1	1827.9	418.2	462.3	503.2	377.4	-16.6	16.6	-1148.2	279.7	-1130.1	-1085.9	-1045.1	-1170.9
miR-221-3p	2349.7	2601.9	1754.0	2530.6	1849.2	2135.9	1926.3	2154.8	-126.1	126.1	-721.8	54.9	-626.5	-339.9	-549.5	-321.0
miR-221-5p	156.7	172.0	59.9	177.4	60.0	62.8	46.7	62.1	-7.6	7.6	-104.5	13.0	-104.4	-101.6	-117.6	-102.3
miR-222-3p	398.7	452.0	410.1	338.9	452.5	391.4	434.6	413.3	-26.6	26.6	-15.3	-86.4	27.1	-33.9	9.2	-12.0
miR-222-5p	0.0	7.0	9.0	7.9	15.4	24.4	18.9	28.1	-3.5	3.5	5.5	4.4	11.9	20.9	15.4	24.6
miR-223-3p	416.6	451.0	462.0	477.9	466.2	534.7	470.4	403.6	-17.2	17.2	28.2	44.1	32.4	100.9	36.6	-30.2
miR-223-5p	49.5	47.0	5.0	49.7	15.4	8.1	0.0	9.7	1.2	-1.2	-43.3	1.5	-32.8	-40.1	-48.2	-38.5
miR-23a-3p	12090.9	14091.7	7469.1	13130.6	7905.6	8104.9	7770.2	7626.7	-1000.4	1000.4	-5622.2	39.2	-5185.7	-4986.5	-5321.1	-5464.6
miR-23a-5p	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
miR-23b-3p	9646.3	11052.9	7964.0	10210.1	8199.5	8726.7	8048.7	8336.0	-703.3	703.3	-2385.6	-139.5	-2150.1	-1622.9	-2300.9	-2013.7
miR-23b-5p	0.0	12.0	5.0	0.0	9.4	3.7	7.0	5.8	-6.0	6.0	-1.0	-6.0	3.4	-2.3	1.0	-0.2
miR-23c	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0
miR-24-5p	1853.4	1825.9	1548.5	1687.9	1425.9	1501.5	1642.9	1392.2	13.7	-13.7	-291.1	-151.8	-413.7	-338.2	-196.8	-447.4
miR-24-3p	15399.6	14872.7	13178.2	13323.2	12262.2	11341.6	11971.3	11272.8	263.5	-263.5	-1957.9	-1813.0	-2874.0	-3794.6	-3164.8	-3863.4
miR-25-3p	5303.0	5267.7	4436.0	5318.9	4543.4	4703.8	4683.9	3765.3	17.7	-17.7	-849.4	33.5	-741.9	-581.5	-601.4	-1520.0

miR-25-5p	39.9	48.0	40.9	50.8	25.7	23.6	14.9	23.3	-4.1	4.1	-3.0	6.9	-18.2	-20.3	-29.0	-20.7
miR-26a-3p	96.2	123.0	187.6	102.8	161.1	143.3	189.9	191.1	-13.4	13.4	78.0	-6.8	51.5	33.7	80.3	81.5
miR-26a-5p	106321.5	99394.0	49977.9	99383.2	49858.3	44822.8	48082.4	51603.5	3463.7	-3463.7	-52879.9	-3474.6	-52999.5	-58034.9	-54775.4	-51254.3
miR-26b-3p	92.1	128.0	38.9	84.7	42.0	72.4	55.7	33.0	-17.9	17.9	-71.1	-25.3	-68.1	-37.7	-54.4	-77.1
miR-26b-5p	37705.4	36126.0	25369.0	40063.3	26275.7	25029.3	28248.3	25950.0	789.7	-789.7	-11546.7	3147.6	-10640.1	-11886.4	-8667.4	-10965.8
miR-27a-3p	40904.8	44159.4	33794.8	35728.8	33685.9	32953.2	35655.6	29192.4	-1627.3	1627.3	-8737.3	-6803.3	-8846.2	-9578.9	-6876.5	-13339.8
miR-27a-5p	232.4	230.0	237.5	224.8	212.5	192.8	223.8	225.1	1.2	-1.2	6.3	-6.4	-18.7	-38.4	-7.4	-6.1
miR-27b-3p	182460.4	180403.9	109309.6	152784.7	109662.8	105632.3	106898.8	99518.8	1028.2	-1028.2	-72122.6	-28647.4	-71769.3	-75799.9	-74533.3	-81913.3
miR-27b-5p	82.5	111.0	231.5	93.8	207.4	144.0	193.9	199.9	-14.2	14.2	134.7	-3.0	110.6	47.3	97.2	103.1
miR-28-3p	338.2	307.0	428.0	378.5	453.3	506.6	516.1	537.5	15.6	-15.6	105.4	55.9	130.7	184.0	193.5	214.9
miR-28-5p	1574.3	1312.6	1444.7	1332.4	1480.8	1531.0	1489.7	1523.2	130.8	-130.8	1.3	-111.1	37.3	87.6	46.3	79.8
miR-296-5p	13.7	21.0	5.0	12.4	6.0	12.6	9.9	7.8	-3.6	3.6	-12.4	-4.9	-11.4	-4.8	-7.4	-9.6
miR-299-3p	48.1	75.0	104.8	53.1	137.1	141.8	177.0	182.4	-13.4	13.4	43.2	-8.5	75.5	80.2	115.5	120.8
miR-299-5p	9.6	0.0	12.0	5.6	18.9	21.4	5.0	11.6	4.8	-4.8	7.2	0.8	14.0	16.6	0.2	6.8
miR-29a-3p	95034.9	91396.7	92324.3	93690.4	96056.8	86809.6	98647.6	84086.8	1819.1	-1819.1	-891.5	474.6	2841.0	-6406.2	5431.8	-9129.0
miR-29a-5p	37.1	59.0	123.7	79.1	132.8	152.1	158.1	118.4	-10.9	10.9	75.7	31.0	84.8	104.1	110.1	70.3
miR-29b-5p	88.0	74.0	75.8	90.4	50.6	82.7	53.7	107.7	7.0	-7.0	-5.2	9.4	-30.4	1.7	-27.3	26.7
miR-29b-3p	1260.8	1467.7	1657.3	1281.7	2423.0	2371.3	2706.4	2267.4	-103.4	103.4	293.0	-82.5	1058.7	1007.1	1342.2	903.1
miR-29c-3p	1522.0	1721.7	4973.8	1682.2	6459.1	6045.2	7290.4	5886.7	-99.8	99.8	3351.9	60.4	4837.2	4423.4	5668.6	4264.9
miR-29c-5p	122.4	135.0	187.6	127.7	236.5	262.2	256.6	259.0	-6.3	6.3	58.9	-1.0	107.8	133.5	127.9	130.4
miR-301a-3p	46.7	64.0	87.8	64.4	112.3	121.1	159.1	142.6	-8.6	8.6	32.4	9.0	56.9	65.8	103.7	87.2
miR-301a-5p	33.0	35.0	16.0	32.8	11.1	9.6	9.0	0.0	-1.0	1.0	-18.0	-1.2	-22.9	-24.4	-25.0	-34.0
miR-302a-3p	0.0	0.0	0.0	0.0	0.0	69.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69.9	0.0	0.0
miR-302a-5p	0.0	0.0	0.0	0.0	0.0	711.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	711.2	0.0	0.0
miR-302b-3p	0.0	0.0	0.0	0.0	0.0	860.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	860.9	0.0	0.0
miR-302c-3p	0.0	0.0	0.0	0.0	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.5	0.0	0.0
miR-302c-5p	0.0	0.0	0.0	0.0	0.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.2	0.0	0.0
miR-302d-3p	0.0	0.0	0.0	0.0	0.0	86.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86.9	0.0	0.0
miR-3065-5p	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
miR-3074-3p	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.5	3.5	-3.5	-3.5	-3.5	-3.5	-3.5	-3.5
miR-3074-5p	0.0	0.0	0.0	0.0	4.3	5.2	0.0	0.0	0.0	0.0	0.0	0.0	4.3	5.2	0.0	0.0
miR-30a-3p	1735.8	1758.9	1933.6	1694.6	2204.4	2010.7	2010.8	2165.0	-11.5	11.5	186.3	-52.7	457.1	263.3	263.4	417.6
miR-30a-5p	124659.3	101447.4	122295.1	108844.3	121838.7	106026.2	124617.0	132619.1	11605.9	-11605.9	9241.7	-4209.0	8785.4	-7027.2	11563.6	19565.8
miR-30b-3p	360.2	344.0	441.0	275.7	403.6	375.9	382.9	516.1	8.1	-8.1	88.9	-76.4	51.5	23.8	30.8	164.0
miR-30b-5p	32267.7	32166.6	43627.4	35687.8	41513.8	35348.6	40677.8	40560.5	50.6	-50.6	11410.3	3470.6	9296.7	3131.5	8460.7	8343.4
miR-30c-3p	749.3	782.0	1102.5	716.3	1234.8	1305.0	1234.1	1435.9	-16.3	16.3	336.9	-49.4	469.2	539.4	468.5	670.3
miR-30c-5p	51794.8	49390.1	25502.4	50080.2	24463.1	25152.5	24268.2	27682.1	1202.3	-1202.3	-25090.1	-512.2	-26129.3	-25440.0	-26324.3	-22910.4
miR-30d-3p	305.2	356.0	219.5	333.3	247.7	215.7	206.8	232.8	-25.4	25.4	-111.1	2.7	-83.0	-114.9	-123.8	-97.8
miR-30d-5p	64590.3	55335.5	27174.1	55016.7	24620.8	21624.1	24481.2	23750.5	4627.4	-4627.4	-32788.8	-4946.2	-35342.1	-38338.8	-35481.7	-36212.4
miR-30e-3p	1590.1	1578.9	1701.2	1533.1	1422.1	1408.0	1359.4	1541.2	5.6	-5.6	116.7	-51.4	-162.4	-176.4	-225.1	-43.3
miR-30e-5p	200677.9	156494.9	183565.1	185730.8	155022.8	142837.1	154073.4	191750.9	22091.5	-22091.5	4978.7	7144.4	-23563.6	-35749.3	-24513.0	13164.5
miR-31-3p	16.5	36.0	273.4	37.3	347.1	349.3	309.3	321.1	-9.7	9.7	247.1	11.0	320.8	323.1	283.0	294.9
miR-31-5p	966.6	817.0	2024.4	973.8	2837.3	2566.5	2817.3	2420.7	74.8	-74.8	1132.7	82.1	1945.5	1674.7	1925.6	1528.9
miR-32-3p	15.1	18.0	20.0	9.0	24.9	29.5	31.8	28.1	-1.4	1.4	3.4	-7.5	8.3	13.0	15.3	11.6
miR-32-5p	250.2	261.0	785.2	291.5	862.9	927.6	1074.0	945.9	-5.4	5.4	529.6	35.9	607.3	672.0	818.4	690.3



miR-320a-3p	1174.2	1163.9	755.3	1082.4	759.0	821.5	900.3	981.2	5.1	-5.1	-413.8	-86.7	-410.1	-347.5	-268.7	-187.9
miR-320b	8.2	9.5	5.0	7.4	11.3	4.7	4.3	6.1	-0.6	0.6	-3.9	-1.5	2.4	-4.2	-4.6	-2.7
miR-320c	0.0	0.0	0.0	0.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	0.0	0.0	0.0
miR-320d	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
miR-323a-3p	13.7	12.0	5.0	19.2	6.9	5.9	6.0	0.0	0.9	-0.9	-7.9	6.3	-6.0	-7.0	-6.9	-12.9
miR-324-3p	24.7	25.0	42.9	30.5	78.8	67.2	66.6	42.7	-0.1	0.1	18.0	5.6	54.0	42.3	41.8	17.8
miR-324-5p	118.2	141.0	118.7	111.8	136.3	157.3	127.3	124.2	-11.4	11.4	-10.9	-17.8	6.6	27.7	-2.3	-5.4
miR-326	123.7	111.0	127.7	110.7	172.2	174.3	184.0	137.8	6.4	-6.4	10.3	-6.7	54.9	56.9	66.6	20.4
miR-328-3p	736.9	771.0	415.1	578.4	546.7	671.3	555.9	456.0	-17.0	17.0	-338.9	-175.5	-207.2	-82.6	-198.0	-298.0
miR-330-3p	28.9	15.0	13.0	13.6	16.3	13.3	5.0	16.5	6.9	-6.9	-9.0	-8.4	-5.7	-8.6	-17.0	-5.4
miR-330-5p	83.9	62.0	112.7	63.3	92.5	116.0	88.5	93.1	10.9	-10.9	39.8	-9.7	19.6	43.0	15.6	20.2
miR-331-3p	181.5	190.0	76.8	146.9	77.1	75.3	87.5	74.7	-4.3	4.3	-108.9	-38.9	-108.6	-110.4	-98.2	-111.0
miR-331-5p	16.5	8.0	10.0	0.0	19.7	13.3	10.9	10.7	4.2	-4.2	-2.3	-12.2	7.5	1.0	-1.3	-1.6
miR-335-3p	290.1	333.0	116.7	238.4	156.0	123.3	104.4	156.2	-21.4	21.4	-194.8	-73.2	-155.6	-188.2	-207.1	-155.3
miR-335-5p	1755.8	1605.9	1105.5	1774.8	1144.9	1116.7	1099.9	1546.5	74.9	-74.9	-575.3	94.0	-536.0	-564.1	-581.0	-134.3
miR-338-3p	68.7	95.0	103.8	101.7	114.8	74.6	126.3	111.6	-13.1	13.1	21.9	19.8	33.0	-7.3	44.4	29.7
miR-338-5p	30.2	37.0	38.9	23.7	35.1	37.7	26.9	25.2	-3.4	3.4	5.3	-9.9	1.5	4.0	-6.8	-8.4
miR-339-3p	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.5	5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
miR-339-5p	2400.6	2841.8	1495.6	2258.4	1549.3	1739.3	1581.2	1045.9	-220.6	220.6	-1125.6	-362.8	-1071.9	-881.9	-1040.0	-1575.3
miR-33a-3p	19.2	29.0	5.0	31.6	11.1	10.3	16.9	15.5	-4.9	4.9	-19.1	7.5	-13.0	-13.8	-7.2	-8.6
miR-33a-5p	242.0	221.0	711.4	229.3	862.1	791.0	1013.4	762.6	10.5	-10.5	479.9	-2.1	630.6	559.5	781.9	531.1
miR-340-3p	264.0	363.0	78.8	244.0	87.4	73.1	85.5	124.2	-49.5	49.5	-234.7	-69.5	-226.1	-240.4	-228.0	-189.3
miR-340-5p	5264.5	5569.7	8344.1	5182.2	7551.2	6709.0	7458.5	8144.8	-152.6	152.6	2927.0	-234.9	2134.1	1291.9	2041.4	2727.7
miR-342-3p	1062.8	1169.9	1297.1	1046.2	1167.1	1410.6	979.5	1281.6	-53.6	53.6	180.7	-70.2	50.8	294.3	-136.8	165.3
miR-342-5p	0.0	0.0	0.0	0.0	0.0	3.7	0.0	11.6	0.0	0.0	0.0	0.0	0.0	3.7	0.0	11.6
miR-345-3p	228.2	188.0	183.6	189.8	175.7	219.3	176.0	162.0	20.1	-20.1	-24.5	-18.3	-32.4	11.2	-32.1	-46.1
miR-345-5p	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
miR-34a-3p	0.0	6.0	0.0	0.0	12.9	0.0	0.0	7.8	-3.0	3.0	-3.0	-3.0	9.9	-3.0	-3.0	4.8
miR-34a-5p	284.6	253.0	721.4	340.1	960.6	922.5	1038.2	1154.5	15.8	-15.8	452.6	71.3	691.8	653.7	769.4	885.7
miR-34b-3p	12.4	16.0	0.0	11.3	8.6	9.6	0.0	9.7	-1.8	1.8	-14.2	-2.9	-5.6	-4.6	-14.2	-4.5
miR-34b-5p	0.0	0.0	0.0	0.0	0.0	4.4	5.0	6.8	0.0	0.0	0.0	0.0	0.0	4.4	5.0	6.8
miR-34c-5p	522.5	499.0	919.9	593.1	790.1	760.7	764.7	1024.5	11.7	-11.7	409.2	82.4	279.4	250.0	254.0	513.8
miR-361-3p	247.5	228.0	67.8	265.5	74.6	109.3	82.5	97.0	9.7	-9.7	-169.9	27.8	-163.2	-128.4	-155.2	-140.7
miR-361-5p	963.8	1104.9	914.9	872.2	904.9	1024.4	927.8	978.9	-70.6	70.6	-119.4	-162.2	-129.5	-10.0	-106.5	-55.4
miR-362-3p	1714.5	1739.9	2615.1	1771.5	2993.2	3321.3	3184.3	2737.9	-12.7	12.7	887.9	44.2	1266.0	1594.1	1457.1	1010.7
miR-362-5p	301.1	302.0	129.7	319.7	132.8	143.3	138.2	157.2	-0.4	0.4	-171.8	18.2	-168.7	-158.3	-163.3	-144.4
miR-363-3p	92.1	45.0	61.9	30.5	94.3	186.1	84.5	103.8	23.6	-23.6	-6.7	-38.1	25.7	117.6	16.0	35.3
miR-365b-3p	1103.4	1201.9	761.8	1131.4	949.5	1289.5	1112.8	1164.2	-49.3	49.3	-390.9	-21.2	-203.2	136.9	-39.8	11.6
miR-365b-5p	15.1	20.0	20.0	22.6	18.0	22.2	17.9	19.4	-2.4	2.4	2.4	5.0	0.4	4.6	0.3	1.8
miR-367-3p	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0
miR-369-3p	94.9	78.0	162.6	68.9	200.5	160.3	200.9	141.6	8.4	-8.4	76.2	-17.5	114.1	73.8	114.4	55.2
miR-369-5p	12.4	28.0	12.0	19.2	22.3	17.0	20.9	11.6	-7.8	7.8	-8.2	-1.0	2.1	-3.2	0.7	-8.5
miR-370-3p	9.6	8.0	5.0	11.3	9.4	5.9	9.0	18.4	0.8	-0.8	-3.8	2.5	0.6	-2.9	0.1	9.6
miR-371a-5p	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0
miR-372-3p	0.0	0.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	0.0	0.0

miR-374a-3p	0.0	0.0	0.0	7.9	0.0	5.2	0.0	10.7	0.0	0.0	0.0	7.9	0.0	5.2	0.0	10.7
miR-374a-5p	11.0	8.0	0.0	0.0	0.0	11.8	5.0	16.5	1.5	-1.5	-9.5	-9.5	-9.5	2.3	-4.5	7.0
miR-374b-3p	44.0	53.0	23.9	37.3	20.6	22.2	25.9	17.5	-4.5	4.5	-24.6	-11.2	-27.9	-26.3	-22.6	-31.0
miR-374b-5p	1975.7	1892.9	2376.6	2169.1	2444.8	2697.9	2344.9	2602.1	41.4	-41.4	442.3	234.8	510.5	763.6	410.6	667.8
miR-375-3p	4084.8	4165.8	6776.7	3974.5	9679.8	9096.7	10570.1	8705.6	-40.5	40.5	2651.4	-150.8	5554.5	4971.4	6444.8	4580.3
miR-376a-3p	0.0	6.0	10.0	0.0	17.1	13.3	12.9	4.9	-3.0	3.0	7.0	-3.0	14.1	10.3	9.9	1.9
miR-376a-5p	6.9	0.0	8.0	6.8	12.0	15.5	15.9	5.8	3.4	-3.4	4.5	3.3	8.6	12.1	12.5	2.4
miR-377-3p	0.0	15.0	15.0	5.6	18.0	36.2	25.9	20.4	-7.5	7.5	7.5	-1.9	10.5	28.7	18.4	12.9
miR-377-5p	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0
miR-378a-3p	46798.6	39390.8	31634.7	40998.4	31611.6	31492.2	30241.1	30880.0	3703.9	-3703.9	-11460.0	-2096.3	-11483.1	-11602.5	-12853.6	-12214.7
miR-378a-5p	1152.2	1145.9	689.4	1110.5	587.9	737.8	630.5	590.9	3.1	-3.1	-459.6	-38.5	-561.2	-411.2	-518.6	-558.2
miR-378b	0.0	3.5	0.0	0.0	0.0	0.0	0.0	1.2	-1.7	1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-0.5
miR-378c	6641.5	5976.7	4220.7	5983.4	3743.5	3837.8	4057.4	3151.7	332.4	-332.4	-2088.4	-325.6	-2565.6	-2471.2	-2251.6	-3157.4
miR-378d	7919.5	7085.5	5086.8	7058.6	4527.2	4625.0	5085.9	3665.3	417.0	-417.0	-2415.7	-443.9	-2975.3	-2877.5	-2416.6	-3837.2
miR-378e	5.0	1.6	5.2	1.6	2.6	3.0	3.2	1.9	1.7	-1.7	1.9	-1.7	-0.7	-0.4	-0.1	-1.4
miR-378f	0.0	0.0	2.5	3.4	0.0	1.3	0.0	0.0	0.0	0.0	2.5	3.4	0.0	1.3	0.0	0.0
miR-378g	0.0	3.0	19.0	13.0	10.3	10.0	8.5	10.7	-1.5	1.5	17.5	11.5	8.8	8.5	7.0	9.2
miR-378h	4.4	6.8	3.6	6.8	3.3	3.7	4.5	1.6	-1.2	1.2	-2.0	1.2	-2.3	-1.9	-1.1	-4.0
miR-378i	1734.4	1489.4	1181.3	2381.5	1066.4	1073.1	1030.8	1040.5	122.5	-122.5	-430.6	769.6	-545.5	-538.8	-581.2	-571.4
miR-379-3p	57.7	65.0	46.4	41.2	55.7	58.0	53.7	55.8	-3.6	3.6	-15.0	-20.1	-5.7	-3.4	-7.7	-5.6
miR-379-5p	356.1	316.0	947.9	342.3	1103.7	1002.2	1249.0	1193.3	20.1	-20.1	611.8	6.3	767.7	666.2	913.0	857.3
miR-380-3p	19.2	20.0	34.9	14.7	55.7	35.5	42.8	61.1	-0.4	0.4	15.3	-4.9	36.1	15.8	23.1	41.5
miR-380-5p	0.0	7.0	12.0	6.8	18.9	11.1	13.9	21.3	-3.5	3.5	8.5	3.3	15.4	7.6	10.4	17.8
miR-381-3p	254.4	250.0	483.9	205.6	500.4	618.9	599.7	574.4	2.2	-2.2	231.7	-46.6	248.3	366.7	347.5	322.2
miR-382-3p	42.6	54.0	75.8	39.5	71.1	83.5	84.5	80.5	-5.7	5.7	27.5	-8.8	22.8	35.1	36.2	32.2
miR-382-5p	23.4	15.0	19.0	14.7	24.9	17.0	14.9	16.5	4.2	-4.2	-0.2	-4.5	5.7	-2.2	-4.3	-2.7
miR-409-3p	17.9	12.0	49.9	21.5	48.0	56.1	31.8	41.7	2.9	-2.9	35.0	6.5	33.1	41.2	16.9	26.8
miR-409-5p	130.6	157.0	71.8	108.5	99.4	87.1	84.5	71.8	-13.2	13.2	-72.0	-35.3	-44.4	-56.7	-59.3	-72.0
miR-410-3p	121.0	148.0	191.6	151.4	241.7	224.5	244.6	191.1	-13.5	13.5	57.1	16.9	107.2	90.0	110.1	56.6
miR-411-3p	59.1	95.0	63.4	70.6	78.8	69.1	85.5	83.0	-17.9	17.9	-13.7	-6.4	1.8	-8.0	8.5	5.9
miR-411-5p	324.5	240.0	456.0	266.6	561.3	499.3	526.1	464.7	42.2	-42.2	173.7	-15.6	279.1	217.0	243.8	182.5
miR-421	122.4	103.0	20.0	137.8	10.3	27.3	9.9	26.2	9.7	-9.7	-92.7	25.1	-102.4	-85.4	-102.7	-86.5
miR-422a	21.7	13.7	37.9	20.6	43.3	38.5	42.3	39.8	4.0	-4.0	20.2	2.9	25.6	20.8	24.6	22.1
miR-423-3p	1358.4	1481.9	1231.2	1155.7	1205.7	1557.6	1249.0	1465.0	-61.8	61.8	-188.9	-264.4	-214.5	137.4	-171.1	44.8
miR-423-5p	394.6	516.0	364.2	497.1	481.6	501.5	507.2	573.4	-60.7	60.7	-91.1	41.8	26.3	46.2	51.9	118.1
miR-424-5p	9.6	27.0	40.9	28.2	55.7	60.6	55.7	55.3	-8.7	8.7	22.6	9.9	37.4	42.2	37.4	37.0
miR-425-3p	151.2	166.0	114.7	190.9	123.4	139.6	105.4	116.4	-7.4	7.4	-43.9	32.3	-35.2	-19.0	-53.2	-42.2
miR-425-5p	1208.5	988.9	874.0	1126.4	961.5	1072.4	1009.4	1036.2	109.8	-109.8	-224.7	27.6	-137.3	-26.4	-89.4	-62.6
miR-4286	411.1	455.0	572.7	437.2	591.3	551.0	649.4	294.0	-21.9	21.9	139.7	4.2	158.2	117.9	216.3	-139.1
miR-429	0.0	0.0	0.0	0.0	0.0	3.7	0.0	5.8	0.0	0.0	0.0	0.0	0.0	3.7	0.0	5.8
miR-431-5p	0.0	0.0	0.0	0.0	9.4	12.6	9.0	0.0	-2.5	2.5	-2.5	-2.5	6.9	10.1	6.5	-2.5
miR-433-3p	6.9	0.0	6.0	0.0	10.3	8.1	7.0	11.6	3.4	-3.4	2.5	-3.4	6.8	4.7	3.5	8.2
miR-433-5p	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
miR-4443	0.0	0.0	11.0	0.0	16.3	5.9	13.9	6.8	0.0	0.0	11.0	0.0	16.3	5.9	13.9	6.8
miR-4448	8.2	6.0	20.0	14.7	36.8	49.5	71.6	22.3	1.1	-1.1	12.8	7.6	29.7	42.4	64.5	15.2

miR-4454	6040.0	3152.8	1633.3	5993.3	852.6	661.7	864.2	433.7	1443.6	-1443.6	-2963.1	1396.9	-3743.8	-3934.7	-3732.2	-4162.7
miR-449a	0.0	5.0	6.0	10.2	10.3	8.9	7.0	0.0	-2.5	2.5	3.5	7.7	7.8	6.4	4.5	-2.5
miR-4508	0.0	0.0	0.0	10.2	4.3	0.0	5.0	0.0	0.0	0.0	0.0	10.2	4.3	0.0	5.0	0.0
miR-450a-1-3p	0.0	0.0	13.0	0.0	45.4	32.5	43.8	46.6	0.0	0.0	13.0	0.0	45.4	32.5	43.8	46.6
miR-450a-5p	651.0	603.0	628.1	513.5	616.1	568.3	617.6	631.6	24.0	-24.0	1.1	-113.5	-10.9	-58.7	-9.4	4.6
miR-4510	0.0	0.0	1.5	0.0	4.3	2.6	5.2	3.4	0.0	0.0	1.5	0.0	4.3	2.6	5.2	3.4
miR-451a	15363.2	16132.1	15309.4	17286.3	13235.2	17110.0	14160.1	16765.1	-384.5	384.5	-438.3	1538.7	-2512.4	1362.4	-1587.5	1017.4
miR-452-5p	12.4	7.0	9.0	9.0	14.6	8.9	7.0	13.6	2.7	-2.7	-0.7	-0.6	4.9	-0.8	-2.7	3.9
miR-455-3p	266.7	324.0	254.4	279.0	193.7	254.1	193.9	203.7	-28.6	28.6	-40.9	-16.3	-101.7	-41.3	-101.4	-91.6
miR-455-5p	622.8	651.0	919.9	607.8	955.5	999.3	1067.1	1012.9	-14.1	14.1	283.0	-29.1	318.6	362.4	430.2	376.0
miR-4770	0.0	15.0	0.0	0.0	6.0	0.0	7.0	0.0	-7.5	7.5	-7.5	-7.5	-1.5	-7.5	-0.5	-7.5
miR-4791	9.6	5.0	6.0	0.0	8.6	0.0	0.0	0.0	2.3	-2.3	-1.3	-7.3	1.3	-7.3	-7.3	-7.3
miR-483-3p	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0
miR-484	1501.4	1516.9	1033.7	1300.3	1081.4	1145.5	1118.8	747.1	-7.8	7.8	-475.5	-208.8	-427.7	-363.7	-390.4	-762.1
miR-485-3p	0.0	0.0	10.0	0.0	14.6	23.6	11.9	20.4	0.0	0.0	10.0	0.0	14.6	23.6	11.9	20.4
miR-485-5p	0.0	0.0	0.0	0.0	0.0	8.1	8.0	4.9	0.0	0.0	0.0	0.0	0.0	8.1	8.0	4.9
miR-486-3p	28.9	41.0	21.5	24.9	22.7	23.6	18.4	22.8	-6.1	6.1	-13.5	-10.1	-12.2	-11.3	-16.5	-12.1
miR-486-5p	7570.9	8240.0	6282.8	6458.2	5215.7	4326.4	4919.1	4802.0	-334.6	334.6	-1622.7	-1447.3	-2689.8	-3579.0	-2986.4	-3103.5
miR-487b-3p	26.1	32.0	12.0	18.1	0.0	13.3	13.9	6.8	-2.9	2.9	-17.1	-11.0	-29.1	-15.8	-15.1	-22.3
miR-490-3p	724.6	578.0	927.9	535.5	782.4	951.3	878.1	892.6	73.3	-73.3	276.6	-115.8	131.1	300.0	226.8	241.3
miR-490-5p	11.0	9.0	18.0	18.1	27.4	29.5	17.9	16.5	1.0	-1.0	8.0	8.1	17.4	19.5	7.9	6.5
miR-491-5p	0.0	0.0	0.0	6.8	4.3	6.6	8.0	6.8	0.0	0.0	0.0	6.8	4.3	6.6	8.0	6.8
miR-494-3p	56.4	54.0	43.9	46.3	44.6	35.5	21.9	41.7	1.2	-1.2	-11.3	-8.9	-10.6	-19.7	-33.3	-13.5
miR-495-3p	20.6	35.0	48.9	47.4	56.6	59.1	41.8	56.3	-7.2	7.2	21.1	19.6	28.7	31.3	14.0	28.5
miR-496	9.6	8.0	7.0	0.0	7.7	23.6	8.0	4.9	0.8	-0.8	-1.8	-8.8	-1.1	14.8	-0.9	-4.0
miR-497-3p	8.2	0.0	5.0	0.0	12.9	3.7	12.9	7.8	4.1	-4.1	0.9	-4.1	8.7	-0.4	8.8	3.6
miR-497-5p	955.6	813.0	1349.9	971.6	1384.8	1392.2	1568.3	1334.0	71.3	-71.3	465.7	87.3	500.5	507.9	684.0	449.8
miR-499a-3p	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0
miR-499a-5p	7611.5	6955.6	1793.9	8005.4	720.7	813.9	755.8	707.3	327.9	-327.9	-5489.6	721.9	-6562.9	-6469.7	-6527.8	-6576.3
miR-501-3p	55.0	42.0	19.0	23.7	27.4	36.9	20.9	25.2	6.5	-6.5	-29.5	-24.8	-21.1	-11.6	-27.6	-23.3
miR-501-5p	0.0	0.0	0.0	0.0	0.0	3.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	5.0	0.0
miR-504-5p	23.4	62.0	5.0	33.9	0.0	36.2	12.9	9.7	-19.3	19.3	-37.7	-8.8	-42.7	-6.5	-29.8	-33.0
miR-505-3p	12.4	11.0	6.0	5.6	17.1	27.3	11.9	32.0	0.7	-0.7	-5.7	-6.0	5.5	15.6	0.2	20.3
miR-532-3p	59.1	67.0	11.0	64.4	22.3	26.6	26.9	14.6	-3.9	3.9	-52.1	1.3	-40.8	-36.5	-36.2	-48.5
miR-532-5p	1109.5	1024.9	726.4	935.4	792.7	860.4	832.4	778.1	42.3	-42.3	-340.9	-131.8	-274.6	-206.8	-234.9	-289.1
miR-542-3p	618.7	546.0	620.6	590.9	695.0	601.2	747.8	746.1	36.4	-36.4	38.3	8.5	112.6	18.8	165.5	163.7
miR-542-5p	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
miR-543	0.0	14.0	0.0	6.8	0.0	0.0	0.0	0.0	-7.0	7.0	-7.0	-0.2	-7.0	-7.0	-7.0	-7.0
miR-574-3p	445.5	503.0	464.0	416.9	456.7	655.8	530.0	416.2	-28.8	28.8	-10.3	-57.3	-17.5	181.6	55.8	-58.0
miR-574-5p	52.2	79.0	154.7	62.1	181.7	195.0	214.8	231.9	-13.4	13.4	89.0	-3.5	116.0	129.4	149.2	166.3
miR-582-5p	108.6	104.0	118.7	115.2	115.7	121.9	114.4	117.4	2.3	-2.3	12.4	8.9	9.4	15.6	8.1	11.1
miR-592	23.4	14.0	81.8	21.5	133.7	145.5	148.2	144.6	4.7	-4.7	63.1	2.8	115.0	126.8	129.5	125.9
miR-6128	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
miR-615-3p	41.2	30.0	18.0	19.2	4.3	15.5	11.9	0.0	5.6	-5.6	-17.7	-16.4	-31.3	-20.1	-23.7	-35.6
miR-6516-3p	71.5	11.0	32.9	75.7	0.0	11.8	6.0	4.9	30.2	-30.2	-8.3	34.4	-41.2	-29.4	-35.3	-36.4

miR-652-3p	2447.3	2689.9	2478.4	2373.6	2462.8	2531.8	2626.4	2502.1	-121.3	121.3	-90.2	-195.0	-105.8	-36.8	57.8	-66.4
miR-652-5p	0.0	0.0	0.0	0.0	12.9	5.2	8.0	6.8	0.0	0.0	0.0	0.0	12.9	5.2	8.0	6.8
miR-664a-3p	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
miR-671-3p	61.9	87.0	30.9	56.5	36.8	30.3	15.9	15.5	-12.6	12.6	-43.5	-17.9	-37.6	-44.2	-58.5	-58.9
miR-671-5p	68.7	57.0	157.6	81.3	167.1	188.3	192.9	163.0	5.9	-5.9	94.8	18.5	104.2	125.5	130.1	100.1
miR-675-3p	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
miR-7-1-3p	160.9	158.0	53.9	151.4	41.1	59.1	24.9	34.9	1.4	-1.4	-105.5	-8.0	-118.3	-100.3	-134.6	-124.5
miR-7-5p	4023.4	4201.4	11535.9	4381.6	14400.1	12116.4	14359.4	21608.6	-89.0	89.0	7423.5	269.1	10287.7	8004.0	10246.9	17496.2
miR-708-3p	199.4	190.0	50.9	144.6	123.4	110.0	154.1	74.7	4.7	-4.7	-143.8	-50.1	-71.3	-84.6	-40.5	-120.0
miR-708-5p	741.1	623.0	534.8	803.3	560.4	517.7	530.0	482.2	59.1	-59.1	-147.2	121.2	-121.6	-164.3	-152.0	-199.8
miR-744-3p	34.4	34.0	28.9	36.2	26.6	30.3	36.8	27.2	0.2	-0.2	-5.3	2.0	-7.6	-3.9	2.6	-7.0
miR-744-5p	627.0	518.0	460.0	561.5	554.4	585.7	541.0	636.5	54.5	-54.5	-112.5	-11.0	-18.0	13.2	-31.5	64.0
miR-760	0.0	0.0	0.0	0.0	0.0	3.7	0.0	4.9	0.0	0.0	0.0	0.0	0.0	3.7	0.0	4.9
miR-766-3p	6.9	0.0	0.0	0.0	0.0	0.0	0.0	4.9	3.4	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	1.4
miR-7704	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0
miR-7975	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	-4.8	-4.8	-4.8	-4.8	-4.8	-4.8	-4.8
miR-7977	3111.4	1677.9	660.5	2996.1	445.6	424.7	455.5	132.9	716.8	-716.8	-1734.2	601.4	-1949.1	-1970.0	-1939.2	-2261.7
miR-802	3556.9	3721.8	6238.9	3603.9	7766.3	8087.1	7874.1	8118.6	-82.5	82.5	2599.6	-35.4	4127.0	4447.8	4234.8	4479.3
miR-873-5p	0.0	0.0	6.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	6.0	0.0	4.3	0.0	0.0	0.0
miR-874-3p	34.4	45.0	46.9	33.9	54.8	90.1	60.7	68.9	-5.3	5.3	7.2	-5.8	15.2	50.4	21.0	29.2
miR-874-5p	6.9	6.0	0.0	0.0	0.0	4.4	5.0	0.0	0.4	-0.4	-6.4	-6.4	-6.4	-2.0	-1.5	-6.4
miR-877-3p	0.0	6.0	0.0	5.6	0.0	0.0	0.0	0.0	-3.0	3.0	-3.0	2.6	-3.0	-3.0	-3.0	-3.0
miR-877-5p	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
miR-885-5p	0.0	0.0	0.0	0.0	0.0	10.3	7.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	7.0	0.0
miR-9-3p	28.9	35.0	28.6	38.0	27.1	27.6	20.6	27.8	-3.1	3.1	-3.3	6.1	-4.8	-4.4	-11.4	-4.1
miR-9-5p	165.9	160.3	153.3	163.8	163.7	165.9	166.1	164.9	2.8	-2.8	-9.8	0.7	0.6	2.8	3.0	1.8
miR-92a-3p	2663.2	2982.3	3874.2	2569.6	4438.0	4873.3	4803.7	4448.4	-159.6	159.6	1051.5	-253.1	1615.3	2050.6	1981.0	1625.6
miR-92b-3p	169.1	158.0	55.9	133.3	18.0	106.4	63.6	59.2	5.6	-5.6	-107.7	-30.2	-145.6	-57.2	-99.9	-104.4
miR-93-3p	46.7	65.0	23.9	47.4	32.6	22.2	9.0	16.5	-9.1	9.1	-31.9	-8.4	-23.3	-33.7	-46.9	-39.4
miR-93-5p	4819.0	3966.8	4247.4	4955.1	4234.1	4638.1	4513.9	4062.2	426.1	-426.1	-145.5	562.2	-158.8	245.2	120.9	-330.7
miR-96-3p	0.0	8.0	0.0	7.9	0.0	0.0	0.0	0.0	-4.0	4.0	-4.0	3.9	-4.0	-4.0	-4.0	-4.0
miR-96-5p	1049.1	1145.9	1140.4	1045.0	1177.4	1345.6	1191.4	1871.5	-48.4	48.4	42.9	-52.5	79.9	248.1	93.9	774.0
miR-98-3p	30.2	28.0	128.7	9.0	136.3	155.1	121.3	148.4	1.1	-1.1	99.6	-20.1	107.1	126.0	92.2	119.3
miR-98-5p	1037.2	1054.3	8218.7	1311.9	8873.1	6272.1	8244.6	11101.0	-8.6	8.6	7172.9	266.1	7827.3	5226.3	7198.8	10055.2
miR-9985	41.9	47.3	40.1	45.6	32.3	33.4	40.4	17.9	-2.7	2.7	-4.6	0.9	-12.4	-11.3	-4.2	-26.7
miR-99a-3p	0.0	7.0	54.9	0.0	61.7	63.5	64.6	75.7	-3.5	3.5	51.4	-3.5	58.2	60.0	61.1	72.2
miR-99a-5p	66021.6	58741.3	16198.4	52268.6	13576.7	12557.2	13478.9	13835.1	3640.2	-3640.2	-46183.1	-10112.9	-48804.7	-49824.2	-48902.5	-48546.4
miR-99b-3p	22.0	26.0	20.0	38.4	6.0	12.6	33.8	17.5	-2.0	2.0	-4.0	14.4	-18.0	-11.4	9.8	-6.5
miR-99b-5p	12313.7	11046.4	5563.4	9270.8	5237.5	5569.4	5055.8	4954.8	633.6	-633.6	-6116.6	-2409.3	-6442.5	-6110.6	-6624.2	-6725.2

**Supplementary Table 4.** Oligonucleotides (primers, miRNAs, and siRNAs) used in this study**(A) Primers**

Name	Sequence (5' to 3')	Orientation	Spices	Application
Hoxd4-1	GATGAAGAAGGTGCACGTGAATTCG	Forward	Mouse	Genotyping
Hoxd4-1r	GTGTGAGCGATTTCAATCCGACG	Reverse	Mouse	Genotyping
Hoxd3-1	GAATCCCGACAGAACTCCAAGC	Forward	Mouse	Genotyping
Hoxd3-1r	GAAGTGGAACTCCTTCTCCAGC	Reverse	Mouse	Genotyping
Hoxd10-1	CTTCCAGAAGACAGGAGCTGC	Forward	Mouse	Genotyping
Hoxd10-1r	GAGCCAATTGCTGGTTGGAGTATC	Reverse	Mouse	Genotyping
lacZ-1	CTGTTCCGTCATAGCGATAACGAG	Forward	Mouse	Genotyping
lacZ-1r	GTTGCACTACGCGTACTGTGAG	Reverse	Mouse	Genotyping
Hoxd4-l4	CTGAAAGATAGGCCATCGGAGACC	Forward	Mouse	Genotyping
10bWT-1r	GAAGTTGGATCTTTCTGCAGGAGG	Reverse	Mouse	Genotyping
LacZ-2	CCATTACCAGTTGGTCTGGTGTC	Forward	Mouse	Genotyping
10bWT-1r	GAAGTTGGATCTTTCTGCAGGAGG	Reverse	Mouse	Genotyping
10b-2	CTGCTTCAGGCGATGGTGAGTAAG	Forward	Mouse	Genotyping
10b-2r	CTTGCCATGCCACATTTGAGAGTC	Reverse	Mouse	Genotyping
10b-1a	AGAAGGTCCTGGCTGCTCAGCTAC	Forward	Mouse	Genotyping
10b-4r	GAATCTGTGACTATGTGGGTACCAC	Reverse	Mouse	Genotyping
Snord66	CTGAGACCACATGATGGGATTG	Forward	Mouse	qPCR
miR-10b-5p	TACCCTGTAGAACCGAATTTGTG	Forward	Mouse/Human	qPCR
miRTQ	CGAATTCTAGAGCTCGAGGCAGGCGACATGGCTGGCTAGT TAAGCTTGGTACCGAGCTCGGATCCACTAGTCCTTTTTTTTTT TTTTTTTTTTTTTTTTTVN	Forward	Mouse/Human	qPCR
miRTQ-rev	CGAATTCTAGAGCTCGAGGCAGG	Reverse	Mouse/Human	qPCR
10b-scram-f	CTAGAACAGTCTGAGTAGTACATTGATCT	Forward	Mouse	Clone
10b-scram-r	CTAGAGATCAATGTACTACTCAGACTGTT	Reverse	Mouse	Clone
10b-mKlf-Xf	CTAGACATGTTTTGTAGAAATGTGACAGGGTACTAT	Forward	Mouse	Clone
10b-mKlf-Xr	ACATGTTTTGTAGAAATGTGACAGGGTACTATCTAG	Reverse	Mouse	Clone
10b-mKlf-f	CATGTTTTGTAGAAATGTGACAGGG	Forward	Mouse	Clone
10b-mKlf-r	CCCTGTCACA TTTCTACAAA ACATG	Reverse	Mouse	Clone
10b-mKlfMu-Xf	CTAGACATGTTTTGTAGAAATGTGCCTGAGCACTAT	Forward	Mouse	Clone
10b-mKlfMu-Xr	CTAGATAGTGCTCAGGCACATTTCTACAAAACATGT	Reverse	Mouse	Clone
10b-mKlfMu-f	GTTTTGTAGAAATGTGCCTGAGCAC	Forward	Mouse	Clone
10b-mKlfMu-r	GTGCTCAGGCACATTTCTACAAAAC	Reverse	Mouse	Clone
mKlf-1	GAGGTGGGCAAGCTGAACAGAATC	Forward	Mouse	Clone
mKlf-1r	CTTCCTCTCCAGGATCGACTCAC	Reverse	Mouse	Clone
10b-hKLF-Xf	CTAGAGATGTTTTGTAGAAATAAGACAGGGTACTAT	Forward	Human	Clone
10b-hKLF-Xr n	CTAGATAGTACCCTGTCTTATTTCTACAAAACATCT	Reverse	Human	Clone
10b-hKLF-f	GATGTTTTGTAGAAATAAGACAGGG	Forward	Human	Clone
10b-hKLF-r	CCCTGTCTTATTTCTACAAAACATC	Reverse	Human	Clone
hKLF-1	GCTGAACAGAATCGCCTCTGCAG	Forward	Human	Clone
hKLF-1r	GCTTCCTCTCCAGGATGGACTC	Reverse	Human	Clone
pLen-f	GAGTTGTGTTTGTGGACGAAGTAC	Forward	Plasmid	Clone

pLen-r	GCAGCGTATCCACATAGCGT	Reverse	Plasmid	Clone
pLen-1	CGTTTAGTGAACCGTCAGATCGC	Forward	Plasmid	Clone
Luc-1r	GTTGCTCTCCAGCGGTTCCATC	Reverse	Plasmid	Clone
Luc-2r	CGTTTCATAGCTTCTGCCAACC	Reverse	Plasmid	Clone

### (B) miRNAs and siRNAs

Name	Sequence (5' to 3')	Orientation	Spices	Application
miR-10b mimic	UACCCUGUAGAACCGAAUUUGUG	Sense	Mouse/Human	In vitro/In vivo
	TTAUGGGACAUCUUGGCUUAAAC	Antisense		
miR-10b inhibitor	UACCCUGUAGAACCGAAUUUGUG	Sense	Mouse/Human	In vitro/In vivo
	AUGGGACAUCUUGGCUUAAACAC	Antisense		
siKlf11-1	GUUCCUCCCAAGUAGUUAtt	Sense	Mouse	In vitro/In vivo
	UAACUACUUGGGAAGGAACag	Antisense		
siKlf11-2	UCUGAUUUCUGUCCUGUAtt	Sense	Mouse	In vitro/In vivo
	UACAGGGACAGAAAUCAGAgg	Antisense		
siKLF11-1	ACAGUUUACUCAGCACUAAtt	Sense	Human	In vitro
	UUAGUGCUGAGUAAACUGUcc	Antisense		
siKLF11-2	CACCUGAACUACCAAAAAGAtt	Sense	Human	In vitro
	UCUUUUGGUAGUUCAGGUGtg	Antisense		

**Supplementary Table 5.** Primary antibodies used in this study

<b>Name</b>	<b>Vendor (Item #)</b>	<b>Host</b>	<b>Reactivity</b>	<b>Clonality</b>	<b>MW (kDa)</b>	<b>Concentration</b>
KIT	antibodies.com (A111143)	Human,Rabbit		Polyclonal	115	1:10 WES
KiT	R&D system (AF1356)	Human,Goat		Polyclonal		1:20 IHC
KLF11	Antibodies-Online (ABIN324466)	Rabbit	Human, Mouse, Rat	Polyclonal	57	1:100
Insulin	Abcam (ab181547)	Rabbit	Human, Mouse, Rat	Monoclonal		1:100
APC-Cy7 anti-mouse CD45	Biolegend (103116)	Mouse	Rat	Polyclonal	NA	1:5000 FACS
GAPDH	Cell signaling (S2118)	Rabbit	Human, Mouse	Polyclonal	36	1:500
Alexa <sup>TM</sup> 594-anti-rabbit	Jackson ImmunoResearch (711-585)	Rabbit	Donkey	Polyclonal	NA	1:500 IHC

**Supplementary Table 6.** Drugs used in this study

<b>Group</b>	<b>Dose</b>	<b>Administration</b>	<b>Frequency</b>	<b>Class</b>
Sitagliptin	10mg/kg body weight	Oral	Once per day till 4 weeks	Diabetes medication
Prucalopride	2mg/kg body weight	Oral	Once per day till 4 weeks	Chronic constipation medication
Metformin	250mg/kg body weight	Oral	Once per day till 4 weeks	Diabetes medication
Insulin	0.75U/Kg body weight	Intraperitoneal injection	Once per day till 4 weeks	Diabetes medication
Liraglutide	0.2mg/kg body weight	Subcutaneous Injection	Twice per day till 2 weeks	Diabetes medication
miR-10b mimic	500 ng/g body weight	Intraperitoneal injection	Once per wees till 2 weeks	