

ESM Table 1 Median intensity of expression for 152 miRNAs detected above background in at least one insulin target tissue, ranked by adjusted *p* value for differential expression between tissues (FDR<0.05)

Name of microRNA	Fat	Liver	Muscle	Adjusted <i>p</i> value	
rno-miR-1	58.555	54.45	9308.22	5.27×10^{-49}	†
rno-miR-206	103.325	134.5	22562.9	3.21×10^{-43}	†
rno-miR-133a, 133b	87.44	86.94	4481.04	4.84×10^{-42}	†
rno-miR-122a	113.575	12622.29	66.93	1.53×10^{-38}	†
rno-miR-192	67.87	315.46	69.08	3.4×10^{-38}	†
rno-miR-31	69.335	420.96	62.96	1.02×10^{-37}	†
rno-miR-101b	127.38	605.88	136.16	1.02×10^{-37}	†
rno-miR-10b	828.53	65.17	304.09	1.92×10^{-33}	
rno-miR-422b	1399.345	380.45	4962.02	4.66×10^{-32}	
rno-miR-193	3847.82	2884.13	494.45	3.43×10^{-30}	
rno-miR-23a	2895.415	431.49	3094.54	8.82×10^{-30}	
rno-let-7c	15192.63	3530.81	8791.14	9.7×10^{-29}	
rno-let-7b	8235.845	1616.05	4659.25	1.51×10^{-28}	
rno-miR-365	639.36	127.8	132.03	3.79×10^{-28}	
rno-miR-378	149.22	90.27	316.6	3.81×10^{-28}	
rno-miR-125b	1148.07	241.51	606.54	3.17×10^{-27}	
rno-miR-103	533.295	142.75	179.4	1.87×10^{-26}	
rno-miR-203	307.13	117.5	101.77	2.62×10^{-26}	
rno-let-7a	9521.075	2447.1	4862.55	3.07×10^{-26}	
rno-miR-499	75.415	66.54	206.54	1.69×10^{-25}	†
rno-miR-191	1141.72	241.97	399.52	4.66×10^{-25}	
rno-miR-352	390.82	111.47	298.8	1.58×10^{-24}	
rno-miR-143	2301.59	362.48	1432.15	3.34×10^{-24}	
rno-miR-10a	812.59	227.89	263.91	8.99×10^{-24}	
rno-miR-99b	179.96	64.66	97.26	2.43×10^{-23}	
rno-let-7d	570.685	150.32	374.14	2.43×10^{-23}	
rno-miR-23b	1167.83	413.78	1792.53	6.59×10^{-23}	
rno-miR-98	337.56	128.96	263.05	9.74×10^{-23}	
rno-miR-329	316.41	437.29	587.51	1.68×10^{-22}	
rno-miR-21	616.5	859.61	237.01	1.68×10^{-22}	
rno-miR-130a	894.19	259.79	483.79	1.7×10^{-22}	
rno-miR-100	379.3	123.37	241.78	2.28×10^{-22}	
rno-miR-30c	2118.965	541.26	1882.58	7.59×10^{-22}	
rno-miR-24	753.16	221.22	1068.24	1.69×10^{-21}	
rno-miR-451	5221.54	2558.55	673.02	3.75×10^{-21}	
rno-miR-125a	1622.5	1015.74	841.17	1.19×10^{-20}	
rno-miR-22*	110.175	96.32	180.95	2.6×10^{-20}	
rno-miR-200a	76.325	252.79	66.76	6.69×10^{-20}	†
rno-miR-335	698.81	127.04	130.19	6.69×10^{-20}	
rno-miR-324-3p	117.37	108.56	202.27	2.59×10^{-19}	
rno-miR-196a	172.52	70.78	170.26	2.78×10^{-19}	
rno-let-7i	1328.415	261.94	1027.88	7.83×10^{-19}	

Name of microRNA	Fat	Liver	Muscle	Adjusted <i>p</i> value
rno-miR-25	112.81	149.89	111.24	2.14×10^{-18}
rno-miR-152	228.595	105.53	138.25	4.74×10^{-18}
rno-let-7f	141.455	69.28	102.6	7.13×10^{-18}
rno-miR-223	331.68	135.49	156.86	2.46×10^{-17}
rno-miR-99a	152.48	83.05	92.01	1.49×10^{-16}
rno-miR-146	356.29	158.13	166.73	7.51×10^{-16}
rno-miR-27b	176.79	144.7	294.34	7.51×10^{-16}
rno-miR-539	59.515	56.17	116.13	1.04×10^{-15}
rno-miR-30e	95.855	111.93	155.34	1.16×10^{-15}
rno-miR-195	952.195	289.85	744.61	1.24×10^{-15}
rno-miR-26a	1768.305	590.72	1263.26	4.01×10^{-15}
rno-miR-16	803.28	279.4	448.29	5.95×10^{-15}
rno-miR-381	179.915	304.92	177.97	1.04×10^{-14}
rno-miR-207	222.435	509.21	234.74	4.9×10^{-14}
rno-miR-142-3p	320.45	472.98	205.24	1.07×10^{-13}
rno-miR-22	1140.055	621.39	1542.38	1.23×10^{-13}
rno-miR-128a	95.245	90.2	143.12	3.31×10^{-13}
rno-miR-487b	98.385	152.39	127.93	5.75×10^{-13}
rno-miR-185	1268.845	1906.88	1977.5	5.75×10^{-13}
rno-miR-30a-5p	287.075	202.09	445.35	7.76×10^{-13}
rno-miR-196b	129.69	71.31	131.42	2.43×10^{-12}
rno-miR-126	1035.09	315.43	712.53	2.83×10^{-12}
rno-miR-151*	125.19	81.22	98.78	4.19×10^{-12}
rno-miR-222	213.015	80.13	107.44	5.89×10^{-12}
rno-miR-351	263.265	354.4	273.98	7.84×10^{-12}
rno-miR-541	64.71	58.4	102.4	7.84×10^{-12}
rno-miR-15b	265.385	166.25	151.39	1.18×10^{-10}
rno-let-7e	239.955	200.54	146.52	2.02×10^{-10}
rno-miR-107	452.475	240	369.72	2.29×10^{-10}
rno-miR-27a	182.82	86.6	203.36	3.13×10^{-10}
rno-miR-142-5p	154.88	147.53	82.08	3.39×10^{-10}
rno-miR-292-5p	3374.735	4489.05	1508.01	3.86×10^{-10}
rno-miR-290	1293.375	1239.53	651.01	8.91×10^{-10}
rno-miR-338	165.395	109.07	170.35	8.97×10^{-10}
rno-miR-320	1802.945	1976.31	1718.61	1.27×10^{-9}
rno-miR-29a	4282.925	1823.84	3251.4	3.8×10^{-9}
rno-miR-296	179.88	161.56	136.63	1.23×10^{-8}
rno-miR-140*	543.345	245.18	336.07	1.71×10^{-8}
rno-miR-341	79.22	71.45	117.53	1.89×10^{-8}
rno-miR-30d	149.56	95.26	124.08	1.9×10^{-8}
rno-miR-347	226.145	393.36	258.34	3.28×10^{-8}
rno-miR-664	246.94	217.85	196.95	4.56×10^{-8}
rno-miR-346	117.745	149.56	118.39	5.4×10^{-8}
rno-miR-345	102.945	97.19	116.57	9.69×10^{-8}
rno-miR-194	64.3	110.49	64.27	1.89×10^{-7}
rno-miR-327	1063.37	1588.56	1287.27	3.38×10^{-7}

Name of microRNA	Fat	Liver	Muscle	Adjusted <i>p</i> value	
rno-miR-214	1051.45	1429.55	1105.9	3.85×10 ⁻⁷	
rno-miR-212	67.385	104.91	98.43	4.28×10 ⁻⁷	
rno-miR-136	95.94	95.73	115.95	1.05×10 ⁻⁶	
rno-miR-29c	329.23	218.94	435.8	1.05×10 ⁻⁶	
rno-miR-542-5p	241.075	231.47	121.35	2.68×10 ⁻⁶	
rno-miR-483	136.47	138.81	115.36	4.27×10 ⁻⁶	
rno-miR-337	77.205	70.09	114.7	9.86×10 ⁻⁶	
rno-miR-140	116.76	92.05	110.83	9.86×10 ⁻⁶	
rno-miR-17	124.29	111.82	95.97	1.47×10 ⁻⁵	
rno-miR-101a	114.64	104.58	131.76	5.95×10 ⁻⁵	
rno-miR-298	6426.535	6582.58	6945.74	6.57×10 ⁻⁵	
rno-miR-7b	139.835	138.07	144.56	0.000101	
rno-miR-221	112.895	77.03	76.91	0.000118	
rno-miR-199a	85.71	61.83	98.91	0.000136	
rno-miR-291-5p	145.505	265.93	172.24	0.000163	
rno-miR-26b	681.89	412.19	546.03	0.000175	
rno-miR-34a	139.635	105.14	116.49	0.000293	
rno-miR-333	86.425	93.85	86.2	0.00057	
rno-let-7d*	100.375	97.54	92.71	0.00057	
rno-miR-138	121.135	117.82	130.68	0.001761	
rno-miR-300	128.17	264.54	124.48	0.002242	
rno-miR-326	194.57	180.11	148.47	0.002342	
rno-miR-29b	96.13	87.58	110.82	0.002865	
rno-miR-124a	107.87	103.14	110.27	0.003955	
rno-miR-424	102.935	68.89	87.61	0.004065	
rno-miR-382	169.49	352	190.43	0.004242	
rno-miR-503	773.375	830.77	529.98	0.008021	
rno-miR-361	126.58	128.52	100.76	0.010006	
rno-miR-200b	78.145	106.06	74.42	0.010653	
rno-miR-494	2719.03	2473.07	2275.48	0.014941	
rno-miR-379	114.135	102.13	123.12	0.021864	
rno-miR-145	106.105	75.37	88.23	0.023416	†
rno-miR-370	202.175	248.96	198.64	0.03589	
rno-miR-292-3p	115.135	106.61	112.76	0.038365	
rno-miR-129	150.155	170.88	137.97	0.044356	
rno-miR-106b	104.87	97.66	89.61	0.063341	
rno-miR-30b	1367.08	795.14	1036.57	0.099724	
rno-miR-134	83.385	134.58	89.19	0.104427	
rno-miR-135a	128.165	126.12	138.25	0.11512	
rno-miR-154	117.645	108.42	113.55	0.119574	
rno-miR-96	97.215	95.03	96.75	0.166063	
rno-miR-183	92.55	94.87	94.03	0.28162	
rno-miR-9	102.125	90.9	98.63	0.28162	
rno-miR-297	121.935	129.77	120.44	0.297622	
rno-miR-130b	77.505	94.44	65.69	0.300994	
rno-miR-336	96.58	97.16	97.79	0.342243	

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rno-miR-129*	271.68	258.83	267.4	0.399281
rno-miR-135b	120.89	111.92	118.06	0.413143
rno-miR-369-3p	136.285	127.85	136.75	0.4404
rno-miR-204	105.175	98.04	104.06	0.467993
rno-miR-208	98.46	91.79	91.71	0.481498
rno-miR-421	101.975	94.68	102.19	0.507071
rno-miR-210	101.185	166.31	106.55	0.507071
rno-miR-137	111.515	107.9	113.02	0.52933
rno-miR-181c	172.3	161.62	177.49	0.566925
rno-miR-186	103.24	88.33	97.25	0.595742
rno-miR-148b	105.555	91.75	86.51	0.689576
rno-miR-340	93.195	84.83	88.49	0.826597
rno-miR-450	131.865	116.9	129.16	0.855319
rno-miR-363-5p	22472.9	25898.25	18395.47	0.86171
rno-miR-184	397.61	824.4	497.57	0.941296
rno-miR-20a	88.64	93.71	73.37	0.941296
rno-miR-343	109.2	106.78	107.22	0.941296
rno-miR-20a	109.205	111.74	100.64	0.992097

Median intensity is based on all samples (GK, WKY and BN) within each tissue

*Indicates the microRNA coded on the opposite arms of the hairpin precursor

[†]miRNAs with very high expression in one of the three tissues. For example: miR-1, miR-499 and miR-133a-133b showed high expression in muscle, while miR-122a, miR-192, miR-200a and miR-31 were highly expressed in liver