

Supplemental Table 1. Algorithm search for miRNA and CR

miRNA	%CR	Tissue	Change by CR*	Ref.
cel-miR-1824-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-1829b	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-2210-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-2221	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-239a-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-243-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-259-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-259-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-35-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-38-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-40-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-43-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-4809-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-4936	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-49-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-50-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-52-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-55-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-5592-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-5592-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-58b-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-63-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-75-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-75-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-784-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-789	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-791-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-79-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-80-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-83-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-1832b-3p	2-day fasting	Whole animals	Downregulated	(1)
cel-miR-4808-5p	2-day fasting	Whole animals	Downregulated	(1)
cel-let-7-3p	12-hr starvation	Whole animals	Downregulated	(2)
cel-mir-79	12-hr starvation	Whole animals	Downregulated	(2)
cel-mir-85	12-hr starvation	Whole animals	Downregulated	(2)
cel-miR-85-5p	12-hr starvation	Whole animals	Downregulated	(2)
dme-miR-305	24-hr, 72hr starved media	Whole animals	Downregulated	(3)
mmu-miR-126-5p	40% CR	Serum	Downregulated	(4)
mmu-miR-127-3p	40% CR	Serum	Downregulated	(4)
mmu-miR-136-3p	40% CR	Serum	Downregulated	(4)
mmu-miR-139-5p	40% CR	Serum	Downregulated	(4)
mmu-miR-194-5p	40% CR	Serum	Downregulated	(4)
mmu-miR-27b-3p	40% CR	Serum	Downregulated	(4)
mmu-miR-29c-3p	40% CR	Serum	Downregulated	(4)
mmu-miR-322-3p	40% CR	Serum	Downregulated	(4)
mmu-miR-335-5p	40% CR	Serum	Downregulated	(4)
mmu-miR-34a-5p	40% CR	Serum	Downregulated	(4)
mmu-miR-381-3p	40% CR	Serum	Downregulated	(4)
mmu-miR-411-5p	40% CR	Serum	Downregulated	(4)
mmu-miR-434-5p	40% CR	Serum	Downregulated	(4)
mmu-miR-540-3p	40% CR	Serum	Downregulated	(4)
mmu-miR-541-5p	40% CR	Serum	Downregulated	(4)
mmu-miR-101a-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-101b-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-106b-5p	40% CR	Liver	Downregulated	(5)
mmu-miR-107-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-122-5p	40% CR	Liver	Downregulated	(5)
mmu-miR-125a-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-142-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-148a-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-152-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-15a-5p	40% CR	Liver	Downregulated	(5)

Supplementary data

mmu-miR-192-5p	40% CR	Liver	Downregulated	(5)
mmu-miR-1937b_v16.0	40% CR	Liver	Downregulated	(5)
mmu-miR-1937c_v16.0	40% CR	Liver	Downregulated	(5)
mmu-miR-1939_v16.0	40% CR	Liver	Downregulated	(5)
mmu-miR-193a-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-19b-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-203-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-212-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-21a-5p	40% CR	Liver	Downregulated	(5)
mmu-miR-26b-5p	40% CR	Liver	Downregulated	(5)
mmu-miR-27b-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-29b-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-29c-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-30a-5p	40% CR	Liver	Downregulated	(5)
mmu-miR-30e-5p	40% CR	Liver	Downregulated	(5)
mmu-miR-34a-5p	40% CR	Liver	Downregulated	(5)
mmu-miR-466f-3p	40% CR	Liver	Downregulated	(5)
mmu-miR-5097	40% CR	Liver	Downregulated	(5)
mmu-miR-720_v18.0	40% CR	Liver	Downregulated	(5)
mmu-miR-155	30% CR	Colon mucosa	Downregulated	(6)
mmu-miR-30e	40% CR	brain	Downregulated	(7)
mmu-miR-34a	40% CR	brain	Downregulated	(7)
mmu-miR-181a-1*	40% CR	brain	Downregulated	(7)
mmu-miR-200a	30% CR	breast tissue	Downregulated	(8)
mml-miR-106b-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-125a-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-125b-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-133b-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-133c-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-143-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-16-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-182	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-20a-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-224-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-92a-3p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mml-miR-486-5p	30% restriction, starting at 10%	Plasma	Downregulated	(9)
mmu-miR-100-5p	40% CR	Serum	Downregulated	(4)
cel-miR-1822-5p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-34-3p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-1817	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-4810	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-64-3p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-5552-3p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-796	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-253-5p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-359	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-266	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-2210-3p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-1823	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-1829a-5p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-1832a	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-255-3p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-4812-5p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-235-5p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-2214-5p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-797-5p	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-798	2-day fasting	Whole animals	Upregulated	(1)
cel-miR-39-3p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-37-3p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-35-3p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-38-3p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-41-3p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-36-3p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-4813-5p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-40-3p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-34-3p	12-hr starvation	Whole animals	Upregulated	(2)

Supplementary data

cel-miR-41-5p	12-hr starvation	Whole animals	Upregulated	(2)
cel-mir-35	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-359	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-39-5p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-240-5p	12-hr starvation	Whole animals	Upregulated	(2)
cel-miR-246-3p	12-hr starvation	Whole animals	Upregulated	(2)
dme-mir-184	High to low energy switch	Whole animals	Upregulated	(10)
dme-let-7	High to low energy switch	Whole animals	Upregulated	(10)
dme-mir-125	High to low energy switch	Whole animals	Upregulated	(10)
dme-mir-100	High to low energy switch	Whole animals	Upregulated	(10)
mmu-miR-150	30% CR	Colon mucosa	Upregulated	(6)
mmu-miR-351	30% CR	Colon mucosa	Upregulated	(6)
mmu-miR-16	30% CR	Colon mucosa	Upregulated	(6)
mmu-let-7f	30% CR	Colon mucosa	Upregulated	(6)
mmu-miR-34c	30% CR	Colon mucosa	Upregulated	(6)
mmu-miR-29c	30% CR	breast tissue	Upregulated	(11)
mmu-miR-203	30% CR	breast tissue	Upregulated	(11)
mmu-miR-150	30% CR	breast tissue	Upregulated	(11)
mmu-miR-30	30% CR	breast tissue	Upregulated	(11)
mmu-miR-139-5p	40% CR	Liver	Upregulated	(5)
mmu-miR-92a-3p	40% CR	Liver	Upregulated	(5)
mmu-miR-338-5p	40% CR	Liver	Upregulated	(5)
mmu-miR-1187	40% CR	Liver	Upregulated	(5)
mmu-let-7c-5p	40% CR	Liver	Upregulated	(5)
mmu-miR-125b-5p	40% CR	Liver	Upregulated	(5)
mmu-let-7b-5p	40% CR	Liver	Upregulated	(5)
mmu-miR-1944_v16.0	40% CR	Liver	Upregulated	(5)
mmu-miR-1906	40% CR	Liver	Upregulated	(5)
mmu-miR-574-5p	40% CR	Liver	Upregulated	(5)
mmu-miR-2134_v15.0	40% CR	Liver	Upregulated	(5)
mmu-miR-2133_v15.0	40% CR	Liver	Upregulated	(5)
mmu-miR-2141_v15.0	40% CR	Liver	Upregulated	(5)
mmu-miR-2135_v15.0	40% CR	Liver	Upregulated	(5)
mmu-miR-2146_v15.0	40% CR	Liver	Upregulated	(5)
mmu-miR-486-3p	40% CR	Serum	Upregulated	(4)
mmu-miR-3107-3p	40% CR	Serum	Upregulated	(4)
mmu-miR-34b-5p	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-344d-2-5p	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-592-5p	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-mir-136	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-mir-127	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-540	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-449	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-379	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-5107	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-146	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-342	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-368	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-154	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-mir-15	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
mmu-miR-34c-5p	Young vs. old vs. CR (no CR)	Serum	Upregulated	(12)
rno-miR-667	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-383	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-328a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-let-7b	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-92a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-532-3p	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-181c	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-145	lifelong 40% CR	CEVC	Upregulated	(13)
rno-let-7c	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-329	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-23a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-214	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-125b-5p	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-15b	lifelong 40% CR	CEVC	Upregulated	(13)
rno-let-7e	lifelong 40% CR	CEVC	Upregulated	(13)

Supplementary data

rno-miR-181a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-221	lifelong 40% CR	CEVC	Upregulated	(13)
rno-let-7d	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-34a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-24	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-872	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-29a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-140	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-301a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-30c	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-30b	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-27a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-26a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-542-5p	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-152	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-26b	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-186	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-20a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-126	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-29c	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-192	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-30e	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-301b	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-101a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-210	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-106b	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-449a	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-17	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-130b	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-16	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-19b	lifelong 40% CR	CEVC	Upregulated	(13)
rno-miR-503	lifelong 40% CR	CEVC	Upregulated	(13)
mml-miR-6529-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-21-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-340-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-130a-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-1260b	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-130b-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-411-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-598-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-500a-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-501-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-122a-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
mml-miR-337-5p	30% restriction, starting at 10%	Plasma	Upregulated	(9)
hsa-miR-1-3p	7-day weight maintenance (WM) period was followed by 28 days of 30% ER	Serum	Upregulated	(14)
hsa-miR-133a-3p	7-day weight maintenance (WM) period was followed by 28 days of 30% ER	Serum	Upregulated	(14)
hsa-miR-133b	7-day weight maintenance (WM) period was followed by 28 days of 30% ER	Serum	Upregulated	(14)
hsa-miR-206	7-day weight maintenance (WM) period was followed by 28 days of 30% ER	Serum	Upregulated	(14)

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