

SUPPLEMENTARY MATERIAL

Supplementary Table S1. The effect of 30% CR on miRNA expression in the liver.

	Group 1		Group 2		
	Cr		Ad		
Reporter Name	Mean	StDev	Mean	StDev	T-test(p-Value)
mmu-miR-3960	7,214	3,720	5,893	1,870	0.345729
mmu-miR-7028-5p	10,850	5,504	11,422	12,795	0.707084
mmu-miR-133b-5p	29,166	4,790	27,453	17,687	0.996587
mmu-let-7k	347	174	359	360	0.770206
mmu-miR-3962	317	180	368	322	0.465436
mmu-miR-3620-5p	2,201	1,202	2,010	944	0.806528
mmu-miR-669c-5p	1,567	488	1,633	403	0.863513
mmu-miR-2861	2,335	1,637	1,198	426	0.039967
mmu-miR-669f-5p	939	270	934	236	0.810106
mmu-miR-6238	615	747	2,960	4,161	0.048597
mmu-miR-341-5p	56,348	8,592	47,700	12,934	0.012713
mmu-miR-101b-3p	1,044	446	1,213	426	0.326458
mmu-miR-100-5p	319	96	438	247	0.091844
mmu-miR-143-3p	1,202	628	911	121	0.131428
mmu-miR-27a-3p	1,034	309	1,105	321	0.494768
mmu-miR-15a-5p	968	470	1,402	576	0.036146
mmu-miR-669o-5p	396	150	354	105	0.454633
mmu-miR-195a-5p	496	315	490	155	0.984438
mmu-miR-6937-5p	4,972	2,040	4,313	1,551	0.506479
mmu-miR-669l-5p	419	149	380	111	0.502784
mmu-miR-669n	1,609	472	1,693	423	0.773574
mmu-miR-466g	1,736	510	1,625	366	0.559514
mmu-miR-7047-5p	3,664	1,589	3,539	1,266	0.978717
mmu-miR-466c-5p	599	206	365	139	0.006519
mmu-miR-24-3p	3,017	1,225	2,871	309	0.641511
mmu-miR-194-5p	6,894	1,425	7,668	1,980	0.318193
mmu-miR-149-3p	3,665	1,945	3,240	1,146	0.656297
mmu-miR-25-3p	512	235	469	85	0.506317
mmu-miR-3099-3p	564	144	561	125	0.918921
mmu-let-7j	511	131	557	251	0.504248
mmu-miR-466j	409	205	574	291	0.235113
mmu-miR-101c	274	173	303	292	0.601243
mmu-miR-2137	1,320	732	915	382	0.127494
mmu-miR-148a-3p	2,704	672	3,054	912	0.241186
mmu-miR-5100	1,232	940	700	95	0.077305
mmu-miR-762	5,644	1,968	5,078	2,189	0.629904
mmu-let-7e-5p	273	151	234	252	0.811858
mmu-miR-30e-5p	1,994	950	2,014	604	0.860057
mmu-miR-466h-5p	265	185	504	262	0.031873
mmu-miR-3473b	875	534	465	216	0.037754
mmu-miR-669k-5p	387	154	383	81	0.86831
mmu-miR-466h-3p	3,202	708	3,282	558	0.878888
mmu-miR-3095-3p	877	192	826	189	0.531237
mmu-miR-466i-5p	3,884	832	4,156	1,033	0.674214
mmu-miR-30a-5p	3,669	1,104	3,600	731	0.907727
mmu-miR-145b	893	219	473	288	0.001227
mmu-miR-466m-5p	926	269	632	134	0.003522

mmu-miR-29b-3p	894	666	1,157	637	0.264488
mmu-miR-151-5p	334	135	334	124	0.986799
mmu-miR-6970-5p	512	314	399	154	0.35769
mmu-miR-27b-3p	1,737	431	1,888	355	0.45367
mmu-miR-1934-3p	399	266	277	154	0.244947
mmu-miR-221-3p	786	251	735	162	0.519058
mmu-miR-3072-5p	385	123	455	167	0.247301
mmu-miR-669c-3p	2,285	623	2,092	361	0.432303
mmu-miR-3077-5p	392	327	221	104	0.125798
mmu-miR-669f-3p	1,807	479	1,663	241	0.420768
mmu-miR-6240	502	107	345	128	0.00734
mmu-miR-3970	68	41	223	257	0.034218
mmu-miR-5126	8,401	3,751	6,718	1,756	0.206182
mmu-miR-7683-3p	136	135	318	369	0.096302
mmu-miR-3535	395	204	254	123	0.048215
mmu-let-7g-5p	3,091	535	2,883	715	0.330805
mmu-miR-6239	14,009	3,189	18,268	3,055	0.00601
mmu-miR-6931-5p	801	377	366	108	0.001608
mmu-miR-378c	329	127	355	83	0.772099
mmu-miR-6385	425	140	443	89	0.783923
mmu-miR-485-3p	529	127	572	231	0.861091
mmu-miR-101a-3p	1,160	558	1,346	555	0.357532
mmu-miR-378a-3p	446	149	514	129	0.396116
mmu-miR-6366	277	138	266	75	0.865699
mmu-miR-26b-5p	2,069	582	1,718	405	0.111709
mmu-miR-3473f	488	363	199	76	0.021179
mmu-let-7f-5p	3,119	892	2,538	680	0.092733
mmu-miR-7045-5p	1,231	502	1,132	268	0.638869
mmu-miR-23b-3p	2,288	634	2,160	503	0.508675
mmu-miR-705	870	350	736	199	0.344456
mmu-miR-3082-5p	1,533	430	1,541	380	0.937836
mmu-miR-1892	557	337	521	256	0.839428
mmu-miR-3963	1,215	695	1,138	366	0.861965
mmu-miR-6908-5p	272	110	372	124	0.081446
mmu-miR-22-3p	7,143	1,381	7,467	1,743	0.688749
mmu-miR-5099	2,857	903	2,234	497	0.056274
mmu-miR-20b-5p	193	101	289	171	0.072652
mmu-miR-466q	1,750	494	1,560	372	0.346314
mmu-miR-7011-5p	340	117	435	96	0.039827
mmu-miR-6965-3p	689	371	2,111	2,373	0.037218
mmu-miR-423-5p	319	59	353	188	0.492977
mmu-miR-107-3p	1,048	372	1,331	287	0.08274
mmu-miR-329-3p	34	20	144	316	0.210463
mmu-miR-7221-3p	1,527	853	1,031	348	0.106025
mmu-miR-30c-5p	5,378	1,120	5,293	1,404	0.797422
mmu-miR-466f	526	197	537	212	0.779986
mmu-miR-145a-5p	1,726	554	1,417	209	0.087719
mmu-let-7d-5p	2,497	735	2,091	837	0.265377
mmu-miR-20a-5p	819	292	805	182	0.88494
mmu-miR-17-5p	558	209	616	187	0.481723
mmu-miR-363-5p	132	84	409	327	0.008187
mmu-miR-21a-5p	5,170	2,064	4,156	1,694	0.148317
mmu-miR-466f-3p	3,338	638	3,353	456	0.988181
mmu-miR-5130	332	215	120	48	0.004882
mmu-miR-7082-5p	2,063	640	2,862	1,106	0.0436

mmu-miR-378b	350	147	371	90	0.871018
mmu-miR-466i-3p	2,524	582	2,427	388	0.626978
mmu-miR-30d-5p	2,078	619	1,832	851	0.539806
mmu-miR-466f-5p	483	153	373	129	0.024391
mmu-miR-5119	277	189	218	118	0.451497
mmu-miR-6929-3p	326	72	368	110	0.387556
mmu-miR-6981-5p	941	263	1,165	229	0.044817
mmu-miR-130a-3p	967	286	1,011	223	0.777342
mmu-miR-93-5p	434	182	458	65	0.70582
mmu-let-7i-5p	845	236	864	270	0.89157
mmu-miR-7658-5p	248	191	118	40	0.039922
mmu-miR-1187	1,765	391	2,275	725	0.084365
mmu-miR-5107-5p	429	174	648	210	0.008225
mmu-miR-346-3p	626	302	468	183	0.21009
mmu-miR-122-3p	2,205	817	2,301	1,003	0.780025
mmu-miR-669e-5p	154	124	287	151	0.055
mmu-miR-342-3p	160	82	231	153	0.139103
mmu-miR-29c-3p	2,844	1,239	3,114	1,290	0.501129
mmu-miR-3473e	702	435	333	144	0.019497
mmu-miR-152-3p	537	190	553	191	0.830174
mmu-miR-5113	512	135	468	134	0.473942
mmu-miR-22-5p	479	165	506	138	0.764314
mmu-miR-214-3p	546	374	536	92	0.948595
mmu-miR-103-3p	1,064	398	1,298	295	0.180138
mmu-let-7a-5p	2,818	843	2,284	920	0.193003
mmu-miR-802-5p	412	256	386	250	0.935593
mmu-miR-6944-5p	660	359	512	201	0.328479
mmu-miR-181a-5p	419	533	207	24	0.200903
mmu-miR-6896-3p	621	147	679	183	0.487437
mmu-miR-8101	315	160	306	109	0.956405
mmu-miR-494-3p	306	108	607	455	0.020016
mmu-miR-690	12,388	2,556	12,478	1,637	0.865777
mmu-miR-466m-3p	1,589	411	1,530	227	0.683266
mmu-miR-146a-5p	571	222	642	231	0.454848
mmu-miR-6922-5p	492	201	502	116	0.907653
mmu-miR-669a-3p	1,975	540	1,877	276	0.645677
mmu-miR-1895	875	202	1,151	258	0.012891
mmu-miR-30b-5p	3,305	908	3,238	856	0.850504
mmu-miR-672-5p	245	137	441	238	0.041637
mmu-miR-92b-3p	420	175	315	64	0.086432
mmu-miR-203-3p	453	118	519	178	0.39029
mmu-miR-8093	54	60	138	285	0.287563
mmu-miR-3097-5p	377	157	397	231	0.854942
mmu-miR-99a-5p	863	298	887	402	0.779772
mmu-miR-31-5p	749	226	759	158	0.958095
mmu-miR-669e-3p	1,689	440	1,579	195	0.529697
mmu-miR-122-5p	10,790	972	11,909	2,243	0.237239
mmu-miR-1224-5p	419	135	432	91	0.707676
mmu-miR-23a-3p	2,104	569	1,890	487	0.323776
mmu-miR-5112	4,114	2,707	6,888	5,212	0.071404
mmu-miR-7661-3p	280	96	388	91	0.018606
mmu-let-7c-5p	2,337	706	1,949	839	0.276307
mmu-miR-451a	4,801	844	4,358	1,396	0.431628
mmu-miR-32-3p	785	266	719	202	0.528477
mmu-miR-669a-3-3p	739	278	579	153	0.131556

mmu-miR-7239-3p	3,747	4,414	8,162	10,140	0.133449
mmu-miR-15b-5p	412	152	321	82	0.092767
mmu-miR-7027-3p	283	53	296	106	0.764451
mmu-miR-19b-3p	492	262	562	197	0.594425
mmu-miR-26a-5p	5,655	751	5,397	1,012	0.302324
mmu-miR-7081-5p	3,523	2,029	5,329	5,554	0.203969
mmu-miR-125a-5p	840	158	446	194	4.533E-5
mmu-miR-467a-3p	1,210	378	1,079	286	0.412676
mmu-miR-5121	518	205	392	82	0.044916
mmu-miR-7235-3p	594	93	649	180	0.463036
mmu-miR-467f	2,627	602	2,567	465	0.768961
mmu-miR-714	413	245	250	80	0.062626
mmu-let-7b-5p	1,444	466	1,290	624	0.585893
mmu-miR-467e-3p	740	248	593	164	0.143019
mmu-miR-467c-3p	880	293	736	194	0.220199
mmu-miR-574-5p	2,597	552	3,040	938	0.295107
mmu-miR-483-5p	1,085	329	1,260	261	0.182766
mmu-miR-212-3p	32	12	259	171	0.000167
mmu-miR-6348	1,258	426	1,403	400	0.542885
mmu-miR-467g	701	242	512	172	0.053295
mmu-miR-574-3p	1,659	415	1,475	342	0.311189
mmu-miR-126a-3p	4,832	1,128	4,781	914	0.920253
mmu-miR-7016-5p	269	63	363	209	0.112953
mmu-miR-467b-3p	2,685	618	2,764	444	0.805065
mmu-miR-199a-5p	342	295	301	45	0.670773
mmu-miR-468-3p	428	145	357	159	0.113217
mmu-miR-3569-5p	262	75	337	93	0.029548
mmu-miR-467d-3p	2,044	547	2,004	398	0.865427
mmu-miR-192-5p	6,114	1,229	6,908	1,594	0.294265
mmu-miR-7116-5p	285	368	396	290	0.335222
mmu-miR-199a-3p	605	491	625	168	0.888147
mmu-miR-700-3p	259	86	329	184	0.192203
mmu-miR-191-5p	1,121	397	1,162	270	0.812239
mmu-miR-200b-3p	181	161	113	45	0.156052
mmu-miR-1191b-5p	106	131	129	275	0.705775
mmu-miR-328-5p	274	91	319	119	0.214503
mmu-miR-455-3p	371	108	231	71	0.00106
mmu-miR-200a-3p	222	205	145	55	0.210269
mmu-miR-16-5p	4,536	997	5,326	875	0.069498
mmu-miR-709	13,326	2,032	16,085	2,474	0.012694
mmu-miR-8090	53	75	138	334	0.35321
mmu-miR-92a-3p	800	306	670	132	0.170368
mmu-miR-7056-5p	347	99	484	112	0.002219
mmu-miR-139-5p	261	90	166	43	0.004586
mmu-miR-466d-3p	260	111	153	39	0.008479
mmu-miR-6970-3p	47	15	2,013	1,567	0.000219
mmu-miR-132-3p	73	38	345	371	0.014901

Supplementary Table S2. Conserved putative binding sites for mmu-miR-125a-5.

Gene	mmu-miR-125a-5p:3'UTR base-pairing	Position on 3'UTR	
		Start	End
Stat3	target 5' C UG CCUGCCUCAGACUAC CCCUCAGCAAAG G 3' UACAGGUU AA AGG CUCAGGGA AGUGUCAA UU UCC GAGUCCCU miRNA 3' CA 5'	969	1020
Caspase2	target 5' UUCUGUCUACCCUCCUCUCAGGGA 3' miR 3' .AGUGUCAAUUUCCCAGAGUCCCU 5'	76	100
Stard13	target 5' ...CAGCAUGACAUCAAACUCAGGGA 3' miR 3' AGUGUCAAUUUCCCAGAGUCCCU 5'	9	31
Triap1	target 5' C GCUCG UC ACCUCUUUUUCC U 3' UCAUGGG G GGG UCUCAGGGA AGUGUCC U CCC AGAGUCCCU miRNA 3' AA UU 5'	328	367
Nup210	target 5' G U U A A 3' UCAC GU AG G UCUCAGGGA AGUG CA UC C AGAGUCCCU miRNA 3' UC AUU C 5'	349	371
Vps4b	target 5' U A UCUUUAC U 3' GGU GAA UCUCAGGGA CCA UUU AGAGUCCCU miRNA 3' AGUGU A CCC 5'	434	458

Supplementary Table S3. The sequence conservation of miR125a-5p between mouse and human.

Specie	MiR-125a-5p sequence
Mouse	5'UCCCUGAGACCCUUUAACCUGUGA 3'
Human	5'UCCCUGAGACCCUUUAACCUGUGA 3'