

Average Normalized Read Counts

miRNA	Average Normalized Read Counts		Fold Change	AUC	P-values
	Blood	Tissue			
hsa-miR-451a	416628	4417	94.320	1.00	1.69E-73
hsa-let-7f-5p	70837	25482	2.780	0.99	6.56E-38
hsa-let-7i-5p	58087	23350	2.488	0.95	3.49E-08
hsa-miR-486-5p	52729	546	96.588	1.00	2.73E-91
hsa-let-7g-5p	40318	13431	3.002	0.99	9.58E-38
hsa-miR-101-3p	39580	2654	14.913	1.00	1.12E-66
hsa-miR-21-5p	30018	252373	0.119	0.00	2.73E-05
hsa-miR-92a-3p	26423	8271	3.195	0.98	1.04E-29
hsa-let-7a-5p	23813	8845	2.692	0.97	5.01E-24
hsa-miR-144-3p	20435	47	438.967	1.00	2.40E-66
hsa-miR-16-5p	11786	1265	9.316	1.00	2.77E-73
hsa-miR-140-3p	11479	2330	4.927	1.00	1.64E-46
hsa-let-7b-5p	10759	6369	1.689	0.88	2.51E-07
hsa-miR-20a-5p	10127	3402	2.977	0.96	3.40E-20
hsa-miR-103a-3p	9488	3452	2.749	0.99	1.11E-33
hsa-miR-25-3p	9237	1391	6.640	1.00	3.84E-43
hsa-miR-185-5p	8994	575	15.641	1.00	1.25E-56
hsa-miR-126-3p	8697	6887	1.263	0.77	4.20E-02
hsa-miR-26a-5p	8530	29777	0.286	0.02	6.29E-09
hsa-miR-30d-5p	8150	11284	0.722	0.21	7.09E-05
hsa-miR-30e-5p	7649	2478	3.086	1.00	3.86E-39
hsa-miR-22-3p	7141	8901	0.802	0.48	2.86E-01
hsa-miR-144-5p	6580	38	171.241	1.00	3.81E-69
hsa-miR-182-5p	4874	1671	2.917	0.92	1.47E-14
hsa-miR-148a-3p	4384	23780	0.184	0.00	1.29E-08
hsa-miR-223-3p	4362	785	5.556	0.95	2.11E-14
hsa-miR-93-5p	4261	1176	3.624	1.00	1.19E-39
hsa-miR-142-5p	4160	315	13.189	1.00	5.18E-50
hsa-miR-191-5p	3917	2741	1.429	0.70	2.46E-05
hsa-miR-363-3p	3911	97	40.172	1.00	2.13E-71
hsa-miR-7-5p	3821	7655	0.499	0.33	1.04E-02
hsa-miR-26b-5p	2783	4837	0.575	0.18	2.09E-05
hsa-miR-106b-3p	2748	493	5.571	1.00	2.42E-64
hsa-miR-19b-3p	2710	506	5.353	1.00	8.74E-34
hsa-let-7d-5p	2619	604	4.339	1.00	7.22E-43
hsa-miR-148b-3p	2321	954	2.433	0.97	7.68E-23
hsa-miR-320a	2287	3288	0.696	0.51	1.41E-01
hsa-miR-186-5p	2254	1049	2.149	0.98	8.02E-32
hsa-miR-17-5p	2183	777	2.809	0.95	4.71E-19
hsa-miR-183-5p	2138	746	2.866	0.94	2.05E-17
hsa-miR-192-5p	2097	68919	0.030	0.04	7.03E-14
hsa-miR-652-3p	2069	559	3.703	0.99	5.11E-35
hsa-miR-106b-5p	1987	389	5.104	1.00	7.22E-49
hsa-miR-146b-5p	1651	11276	0.146	0.01	3.49E-03
hsa-miR-181a-5p	1353	2183	0.620	0.20	5.79E-04
hsa-miR-378a-3p	1303	13331	0.098	0.00	5.52E-09
hsa-miR-98-5p	1249	634	1.972	0.89	4.16E-09
hsa-miR-532-5p	1192	1499	0.796	0.40	8.76E-02
hsa-miR-340-5p	1167	533	2.189	0.97	1.89E-19
hsa-miR-30c-5p	1121	1714	0.654	0.21	9.39E-06
hsa-miR-423-5p	1104	598	1.847	0.82	6.15E-08
hsa-miR-151a-3p	1100	2143	0.513	0.02	3.42E-14
hsa-miR-15b-5p	1057	79	13.410	1.00	1.79E-40

hsa-miR-425-5p	1054	719	1.467	0.78	3.58E-06
hsa-miR-30b-5p	953	2964	0.321	0.03	2.79E-16
hsa-miR-32-5p	949	59	16.194	1.00	3.99E-59
hsa-miR-143-3p	944	149334	0.006	0.00	1.55E-06
hsa-miR-24-3p	931	5748	0.162	0.00	1.17E-22
hsa-miR-146a-5p	931	8046	0.116	0.04	1.82E-06
hsa-miR-374b-5p	896	691	1.298	0.65	2.29E-03
hsa-miR-20b-5p	885	27	32.189	1.00	3.75E-79
hsa-miR-23a-3p	860	3584	0.240	0.00	3.82E-17
hsa-miR-150-5p	833	1776	0.469	0.37	3.86E-02
hsa-miR-142-3p	773	216	3.572	0.88	5.27E-18
hsa-miR-423-3p	766	1867	0.410	0.02	5.91E-14
hsa-miR-27a-3p	750	5265	0.143	0.00	7.91E-22
hsa-miR-16-2-3p	737	85	8.687	1.00	1.43E-36
hsa-miR-27b-3p	665	15735	0.042	0.00	6.48E-28
hsa-miR-15a-5p	571	66	8.611	1.00	7.97E-77
hsa-miR-107	571	150	3.808	1.00	9.01E-41
hsa-miR-194-5p	529	9542	0.055	0.04	1.47E-12
hsa-miR-484	493	165	2.990	0.97	5.35E-24
hsa-miR-19a-3p	490	100	4.894	0.99	1.67E-42
hsa-miR-106a-5p	475	24	19.660	1.00	3.52E-50
hsa-miR-221-3p	474	2531	0.187	0.00	2.16E-13
hsa-miR-126-5p	439	217	2.019	0.92	5.86E-14
hsa-miR-29a-3p	433	3617	0.120	0.00	3.68E-22
hsa-miR-629-5p	420	213	1.967	0.95	2.04E-17
hsa-miR-660-5p	402	321	1.253	0.78	5.58E-02
hsa-miR-96-5p	397	132	3.019	0.94	2.66E-16
hsa-miR-15b-3p	376	53	7.080	1.00	7.96E-52
hsa-miR-30e-3p	335	237	1.413	0.79	1.41E-06
hsa-miR-29b-3p	317	379	0.835	0.39	5.18E-02
hsa-miR-100-5p	301	12756	0.024	0.01	1.13E-02
hsa-miR-584-5p	298	86	3.469	0.98	1.85E-27
hsa-miR-361-3p	263	947	0.278	0.00	1.93E-17
hsa-let-7c	220	679	0.323	0.31	8.25E-03
hsa-miR-18a-5p	215	55	3.885	0.97	1.44E-24
hsa-miR-454-3p	215	68	3.158	0.92	4.49E-27
hsa-miR-199a-3p	191	5707	0.033	0.00	1.51E-05
hsa-miR-941	168	70	2.399	0.94	1.32E-16
hsa-miR-29c-3p	167	179	0.932	0.51	5.37E-01
hsa-miR-3615	166	65	2.554	0.82	5.56E-11
hsa-miR-374a-3p	162	41	3.967	0.97	2.09E-29
hsa-miR-3613-5p	162	173	0.934	0.60	6.71E-01
hsa-miR-140-5p	161	148	1.087	0.58	4.54E-01
hsa-miR-128	154	312	0.494	0.17	1.74E-06
hsa-miR-3158-3p	149	13	11.441	1.00	1.71E-34
hsa-miR-502-3p	148	137	1.081	0.63	3.77E-01
hsa-miR-151a-5p	145	395	0.367	0.02	3.62E-16
hsa-miR-1307-3p	142	870	0.163	0.00	5.16E-10
hsa-miR-10a-5p	136	55193	0.002	0.00	1.03E-15
hsa-miR-374a-5p	136	97	1.399	0.65	7.08E-03
hsa-miR-500a-3p	135	179	0.754	0.29	3.96E-03
hsa-miR-23b-3p	135	2132	0.063	0.00	2.07E-14
hsa-miR-342-3p	134	416	0.323	0.10	6.80E-07
hsa-miR-576-3p	129	49	2.619	0.94	1.73E-13
hsa-miR-130a-3p	121	37	3.242	0.98	2.09E-30

hsa-miR-1180	121	132	0.916	0.56	6.03E-01
hsa-miR-222-3p	120	1198	0.100	0.00	1.26E-12
hsa-miR-324-5p	117	61	1.927	0.89	1.61E-12
hsa-let-7d-3p	113	189	0.595	0.09	2.22E-09
hsa-miR-223-5p	107	30	3.540	0.95	6.46E-15
hsa-miR-99a-5p	106	8311	0.013	0.01	3.31E-03
hsa-miR-425-3p	106	131	0.805	0.42	6.94E-02
hsa-miR-199b-3p	95	2787	0.034	0.00	2.24E-06
hsa-miR-339-5p	95	288	0.331	0.00	7.83E-12
hsa-miR-362-5p	93	170	0.546	0.22	2.36E-03
hsa-miR-199a-5p	92	1710	0.054	0.00	8.24E-05
hsa-miR-501-3p	88	59	1.498	0.81	4.11E-05
hsa-miR-181b-5p	86	522	0.165	0.00	1.05E-15
hsa-miR-197-3p	86	372	0.231	0.00	8.51E-18
hsa-miR-199b-5p	78	2674	0.029	0.00	1.06E-04
hsa-miR-30a-5p	76	4833	0.016	0.00	4.51E-15
hsa-miR-155-5p	75	1032	0.073	0.00	3.72E-09
hsa-miR-576-5p	72	22	3.292	0.95	1.08E-20
hsa-miR-28-3p	71	1058	0.067	0.00	3.82E-29
hsa-miR-185-3p	71	18	3.888	0.98	6.39E-31
hsa-miR-181a-2-3p	70	95	0.745	0.33	7.13E-03
hsa-miR-1	70	2679	0.026	0.01	8.92E-03
hsa-miR-148b-5p	68	27	2.478	0.98	6.27E-27
hsa-miR-378c	67	404	0.167	0.02	1.22E-07
hsa-miR-152	67	663	0.101	0.00	1.18E-06
hsa-miR-210	63	246	0.257	0.09	1.60E-04
hsa-miR-22-5p	61	92	0.665	0.32	5.11E-03
hsa-miR-548f	58	4	13.651	1.00	5.37E-68
hsa-miR-92b-3p	58	174	0.331	0.04	2.04E-09
hsa-miR-744-5p	57	73	0.778	0.30	8.95E-03
hsa-miR-574-5p	55	653	0.084	0.00	1.58E-06
hsa-miR-320b	53	97	0.547	0.34	1.73E-02
hsa-miR-190a	53	94	0.559	0.38	2.67E-02
hsa-miR-424-5p	52	34	1.563	0.75	2.24E-03
hsa-miR-651	52	42	1.225	0.71	2.13E-01
hsa-miR-625-3p	52	144	0.359	0.10	6.17E-06
hsa-miR-503-5p	51	18	2.916	0.90	2.89E-13
hsa-miR-421	51	45	1.142	0.65	9.68E-02
hsa-miR-196b-5p	51	531	0.095	0.01	1.58E-09
hsa-let-7a-3p	50	59	0.848	0.40	1.16E-01
hsa-miR-324-3p	50	40	1.255	0.72	2.67E-02
hsa-miR-345-5p	49	102	0.481	0.07	1.79E-09
hsa-miR-361-5p	49	144	0.341	0.01	1.44E-14
hsa-miR-589-5p	47	27	1.759	0.95	1.72E-17
hsa-miR-942	45	31	1.477	0.77	4.27E-04
hsa-miR-21-3p	45	294	0.153	0.01	2.99E-09
hsa-miR-550a-3p	43	6	7.356	0.99	1.44E-34
hsa-miR-769-5p	42	340	0.123	0.00	1.17E-08
hsa-miR-379-5p	41	309	0.132	0.02	7.66E-07
hsa-miR-17-3p	40	24	1.638	0.83	4.07E-05
hsa-miR-582-3p	40	52	0.762	0.37	1.17E-01
hsa-miR-664a-3p	40	82	0.487	0.19	5.14E-05
hsa-miR-4732-5p	40	1	46.578	1.00	4.87E-66
hsa-miR-370	40	285	0.139	0.05	8.29E-04
hsa-miR-99b-5p	39	1418	0.028	0.00	2.62E-11

hsa-miR-1260b	38	265	0.145	0.02	2.01E-09
hsa-miR-550a-3-5p	38	8	4.610	0.99	2.97E-37
hsa-miR-331-3p	38	75	0.511	0.19	1.06E-07
hsa-miR-29c-5p	38	150	0.251	0.01	7.13E-13
hsa-miR-1278	38	7	5.471	1.00	2.69E-40
hsa-let-7e-5p	37	461	0.081	0.00	1.43E-09
hsa-miR-3688-3p	37	2	18.696	1.00	4.76E-77
hsa-miR-548e	35	16	2.185	0.98	3.54E-21
hsa-miR-339-3p	35	56	0.636	0.17	1.10E-06
hsa-miR-340-3p	34	36	0.956	0.47	7.65E-01
hsa-miR-624-5p	34	2	15.192	1.00	3.15E-63
hsa-miR-28-5p	33	372	0.089	0.00	7.23E-19
hsa-miR-342-5p	33	31	1.055	0.59	7.54E-01
hsa-miR-590-3p	33	19	1.727	0.82	5.35E-07
hsa-miR-18a-3p	32	15	2.146	0.89	5.59E-11
hsa-miR-2110	32	493	0.065	0.55	6.06E-01
hsa-miR-381-3p	32	246	0.130	0.02	4.06E-09
hsa-miR-1285-3p	31	9	3.401	0.98	9.94E-29
hsa-miR-1260a	31	333	0.092	0.02	7.01E-02
hsa-miR-532-3p	31	46	0.670	0.30	7.98E-03
hsa-miR-335-5p	30	40	0.761	0.46	1.33E-01
hsa-miR-221-5p	30	142	0.209	0.00	2.62E-17
hsa-miR-1307-5p	30	93	0.317	0.12	2.83E-04
hsa-miR-598	29	18	1.675	0.83	6.36E-07
hsa-miR-550a-5p	29	7	4.211	0.99	1.50E-33
hsa-miR-200c-3p	28	11539	0.002	0.01	1.06E-14
hsa-let-7i-3p	27	31	0.864	0.50	1.98E-01
hsa-miR-218-5p	27	396	0.067	0.04	4.39E-08
hsa-miR-450b-5p	26	37	0.723	0.39	4.89E-02
hsa-miR-130b-3p	26	15	1.741	0.87	2.05E-09
hsa-miR-4504	26	1	19.348	1.00	7.91E-69
hsa-miR-3200-3p	25	5	4.628	0.99	6.40E-35
hsa-miR-93-3p	23	19	1.165	0.61	2.30E-01
hsa-miR-145-5p	23	10060	0.002	0.00	1.07E-04
hsa-miR-125b-5p	23	1666	0.014	0.00	1.64E-04
hsa-miR-125a-5p	22	1996	0.011	0.00	1.51E-10
hsa-miR-548o-3p	22	14	1.579	0.75	3.28E-05
hsa-miR-424-3p	21	11	1.957	0.82	1.59E-05
hsa-miR-101-5p	21	2	9.384	1.00	3.79E-42
hsa-miR-450a-5p	21	31	0.659	0.35	1.71E-02
hsa-miR-4326	20	38	0.521	0.28	2.87E-03
hsa-miR-362-3p	19	11	1.736	0.71	2.31E-04
hsa-miR-200b-3p	19	34828	0.001	0.00	1.62E-15
hsa-miR-542-3p	19	22	0.854	0.52	4.12E-01
hsa-miR-582-5p	19	32	0.589	0.27	2.89E-03
hsa-miR-378d	19	180	0.104	0.01	3.26E-07
hsa-miR-505-3p	19	66	0.285	0.00	1.12E-22
hsa-miR-215	19	7517	0.002	0.02	2.49E-03
hsa-miR-3912	19	4	5.024	1.00	6.46E-44
hsa-miR-5010-3p	18	10	1.838	0.78	2.37E-05
hsa-miR-548d-5p	18	3	5.226	1.00	9.79E-42
hsa-miR-29b-2-5p	18	12	1.469	0.70	1.08E-03
hsa-miR-548k	18	12	1.468	0.75	1.15E-03
hsa-miR-326	18	34	0.522	0.16	4.08E-06
hsa-miR-574-3p	18	418	0.042	0.00	1.08E-16

hsa-miR-151b	17	26	0.669	0.22	8.91E-06
hsa-miR-127-3p	17	1206	0.014	0.00	3.19E-03
hsa-miR-378i	17	311	0.055	0.00	1.34E-10
hsa-miR-664a-5p	17	24	0.721	0.36	2.24E-02
hsa-miR-139-5p	16	163	0.098	0.03	1.54E-04
hsa-miR-766-3p	16	13	1.264	0.56	1.31E-01
hsa-miR-654-3p	15	69	0.221	0.08	1.37E-06
hsa-miR-328	15	74	0.203	0.02	2.06E-09
hsa-miR-18b-5p	15	1	11.272	1.00	5.56E-59
hsa-miR-181a-3p	14	48	0.297	0.04	1.98E-08
hsa-miR-409-3p	14	195	0.073	0.00	1.08E-05
hsa-miR-378a-5p	14	174	0.082	0.00	5.37E-11
hsa-miR-1277-5p	13	3	4.748	0.99	1.36E-27
hsa-miR-4732-3p	13	1	17.532	1.00	7.35E-29
hsa-miR-3913-5p	13	7	1.908	0.87	7.40E-09
hsa-miR-148a-5p	12	315	0.040	0.00	2.11E-13
hsa-miR-1301	12	20	0.603	0.18	8.77E-05
hsa-miR-1255b-5p	12	1	8.377	1.00	3.83E-54
hsa-miR-1255a	12	6	2.043	0.79	2.33E-06
hsa-miR-1294	12	3	4.432	0.96	2.89E-22
hsa-miR-135a-5p	12	11	1.054	0.63	7.89E-01
hsa-miR-499a-5p	11	22	0.512	0.35	1.33E-01
hsa-let-7b-3p	11	32	0.338	0.06	9.15E-09
hsa-miR-4508	11	3	4.210	0.92	2.50E-13
hsa-miR-134	11	83	0.132	0.02	3.59E-05
hsa-miR-548ay-5p	11	2	5.400	1.00	1.66E-46
hsa-miR-9-5p	11	158	0.069	0.01	9.63E-06
hsa-miR-330-5p	11	25	0.425	0.09	7.91E-09
hsa-miR-24-2-5p	10	78	0.135	0.00	6.27E-24
hsa-miR-132-3p	10	91	0.115	0.00	7.39E-16
hsa-miR-335-3p	10	251	0.040	0.00	1.09E-08
hsa-miR-454-5p	10	3	2.967	0.88	4.02E-15
hsa-miR-5695	10	1	11.070	1.00	2.93E-50
hsa-miR-4286	10	80	0.123	0.00	7.88E-16
hsa-miR-3200-5p	10	2	6.404	0.99	6.71E-17
hsa-miR-338-5p	9	51	0.186	0.08	1.69E-05
hsa-miR-3656	9	13	0.676	0.49	2.70E-01
hsa-miR-378g	9	71	0.129	0.01	6.17E-08
hsa-let-7g-3p	9	7	1.255	0.56	1.25E-01
hsa-miR-130b-5p	9	38	0.236	0.05	1.47E-11
hsa-miR-10b-5p	9	18224	0.000	0.00	1.25E-15
hsa-let-7f-2-3p	9	14	0.642	0.32	1.03E-02
hsa-miR-103a-2-5p	9	4	2.199	0.85	1.23E-10
hsa-miR-4685-3p	9	3	3.329	0.89	1.37E-13
hsa-miR-146b-3p	9	101	0.086	0.00	2.05E-07
hsa-miR-432-5p	9	34	0.256	0.08	1.46E-06
hsa-miR-382-5p	8	106	0.080	0.01	4.70E-05
hsa-miR-5582-3p	8	1	6.918	0.98	3.16E-19
hsa-miR-495-3p	8	49	0.171	0.03	1.32E-10
hsa-miR-3143	8	1	9.919	1.00	7.18E-38
hsa-miR-136-3p	8	47	0.175	0.05	2.26E-11
hsa-miR-493-3p	8	81	0.100	0.01	3.71E-05
hsa-miR-501-5p	8	32	0.247	0.07	1.12E-05
hsa-miR-6513-5p	8	2	4.652	0.94	7.48E-21
hsa-miR-1246	8	247	0.032	0.03	1.71E-02

hsa-miR-4473	8	13	0.582	0.34	9.07E-03
hsa-miR-1304-5p	8	2	3.253	0.96	8.91E-18
hsa-miR-641	8	5	1.395	0.75	3.81E-02
hsa-miR-181c-5p	8	46	0.165	0.02	1.70E-13
hsa-miR-26b-3p	7	16	0.468	0.12	1.57E-08
hsa-miR-331-5p	7	6	1.171	0.65	2.34E-01
hsa-miR-369-3p	7	23	0.306	0.12	7.42E-09
hsa-miR-122-5p	7	3	2.779	0.57	7.37E-02
hsa-miR-500a-5p	7	26	0.272	0.01	3.29E-07
hsa-miR-181d	7	65	0.106	0.01	7.49E-15
hsa-miR-625-5p	7	16	0.433	0.22	7.08E-05
hsa-miR-190b	7	7	0.956	0.55	7.87E-01
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hsa-miR-106a-3p	7	1	7.052	1.00	2.70E-47
hsa-miR-320c	6	74	0.087	0.04	4.29E-01
hsa-miR-330-3p	6	30	0.213	0.01	4.18E-12
hsa-miR-1299	6	26	0.246	0.28	2.55E-02
hsa-miR-486-3p	6	4	1.692	0.71	1.14E-03
hsa-let-7f-1-3p	6	10	0.661	0.31	5.30E-03
hsa-miR-224-5p	6	592	0.011	0.00	3.52E-05
hsa-miR-1292-5p	6	5	1.166	0.63	2.22E-01
hsa-miR-877-5p	6	12	0.518	0.21	5.51E-05
hsa-miR-1287	6	11	0.544	0.21	4.53E-05
hsa-miR-136-5p	6	23	0.264	0.10	1.60E-08
hsa-miR-3613-3p	6	4	1.616	0.79	4.20E-04
hsa-miR-7-1-3p	6	48	0.122	0.10	4.67E-01
hsa-miR-25-5p	6	13	0.452	0.20	3.65E-05
hsa-miR-548u	6	2	3.457	0.95	1.03E-20
hsa-miR-133a	6	472	0.012	0.00	3.23E-03
hsa-miR-1270	6	19	0.292	0.84	6.79E-01
hsa-miR-1306-3p	6	6	1.002	0.61	9.90E-01
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hsa-miR-548l	5	2	2.559	0.94	2.39E-17
hsa-miR-4999-5p	5	3	1.528	0.77	2.42E-04
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hsa-miR-181c-3p	5	33	0.155	0.00	6.58E-10
hsa-miR-301a-5p	5	3	1.636	0.81	1.60E-04
hsa-miR-3940-3p	5	3	1.889	0.81	1.86E-05
hsa-miR-4677-3p	5	5	1.052	0.56	7.09E-01
hsa-miR-375	5	18612	0.000	0.00	8.07E-05
hsa-miR-30d-3p	5	8	0.602	0.31	3.96E-03
hsa-miR-2355-3p	5	7	0.757	0.41	1.09E-01
hsa-miR-580	5	1	3.194	0.94	1.14E-18
hsa-miR-1303	5	14	0.328	0.10	3.77E-07
hsa-miR-147b	4	419	0.011	0.00	1.37E-04
hsa-miR-32-3p	4	5	0.867	0.53	4.03E-01
hsa-miR-411-5p	4	50	0.088	0.02	1.60E-08
hsa-miR-200a-3p	4	9900	0.000	0.00	1.06E-11
hsa-miR-4454	4	102	0.042	0.02	1.35E-08
hsa-miR-193a-5p	4	106	0.040	0.00	6.15E-10
hsa-miR-1304-3p	4	11	0.382	0.16	6.37E-06
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hsa-miR-27a-5p	4	163	0.025	0.00	1.12E-07

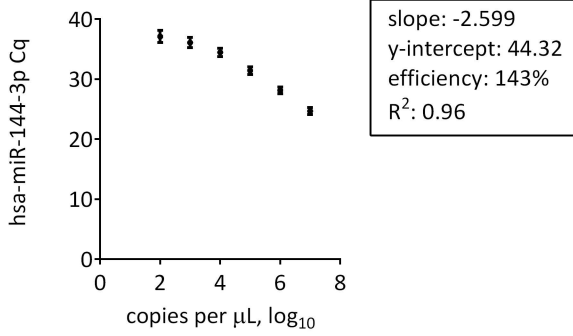
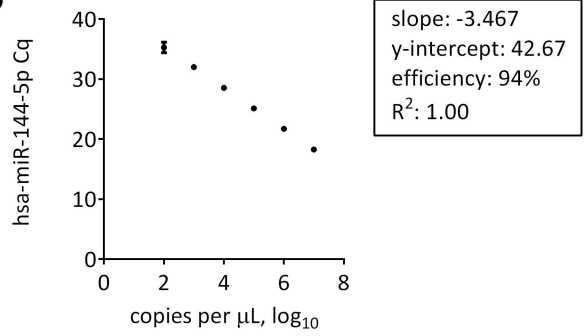
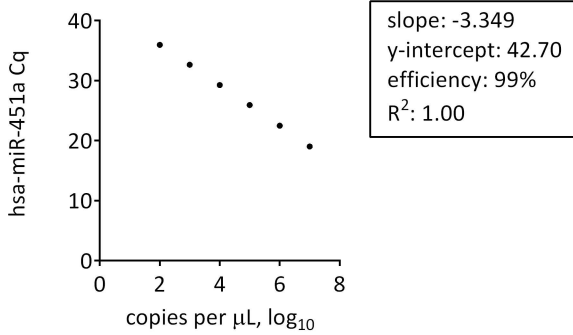
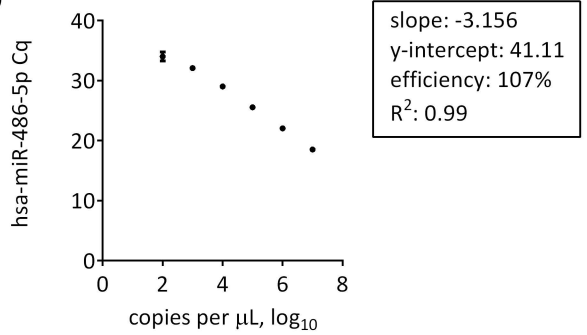
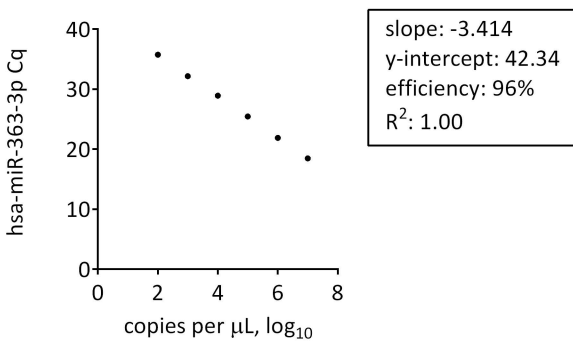
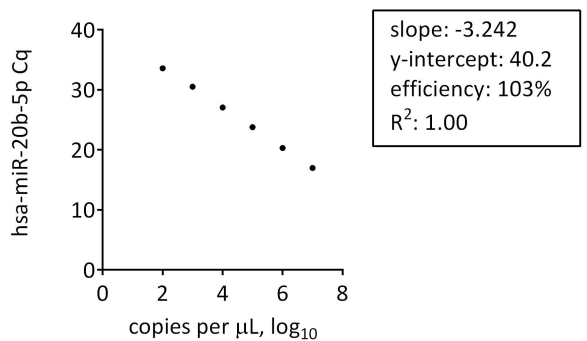
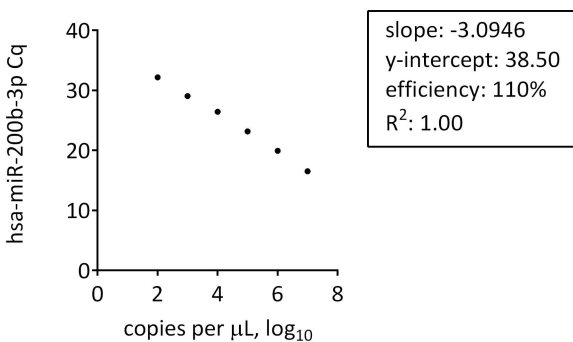
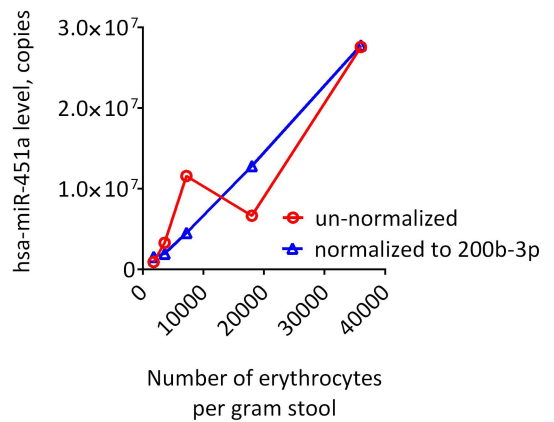
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hsa-miR-376c-3p	4	20	0.188	0.08	6.89E-07
hsa-miR-192-3p	4	70	0.050	0.03	9.77E-12
hsa-miR-487b	3	24	0.148	0.03	2.07E-11
hsa-miR-33a-5p	3	22	0.158	0.02	1.90E-06
hsa-miR-374b-3p	3	5	0.639	0.39	2.47E-02
hsa-miR-654-5p	3	14	0.243	0.07	4.71E-06
hsa-miR-493-5p	3	104	0.033	0.00	5.87E-05
hsa-miR-26a-2-3p	3	15	0.231	0.07	8.19E-10
hsa-miR-99b-3p	3	74	0.044	0.00	5.43E-13
hsa-miR-3605-3p	3	8	0.416	0.18	3.11E-05
hsa-miR-431-5p	3	5	0.609	0.38	3.00E-02
hsa-miR-1249	3	11	0.285	0.10	2.08E-07
hsa-miR-365b-3p	3	76	0.041	0.00	3.12E-06
hsa-miR-365a-3p	3	76	0.041	0.00	3.14E-06
hsa-miR-494	3	24	0.128	0.02	2.28E-06
hsa-miR-195-5p	3	227	0.013	0.00	7.49E-08
hsa-miR-143-5p	3	972	0.003	0.00	4.63E-08
hsa-miR-452-5p	3	212	0.014	0.00	1.98E-11
hsa-miR-3909	3	6	0.472	0.26	7.68E-04
hsa-miR-98-3p	3	5	0.567	0.32	2.03E-02
hsa-miR-31-5p	3	148	0.019	0.07	1.56E-02
hsa-miR-1271-5p	3	12	0.237	0.13	7.77E-06
hsa-miR-188-5p	3	7	0.347	0.24	8.35E-03
hsa-miR-758-3p	2	9	0.266	0.15	5.76E-03
hsa-miR-1291	2	36	0.069	0.00	1.62E-05
hsa-miR-1296	2	49	0.049	0.00	1.22E-21
hsa-miR-652-5p	2	7	0.325	0.17	3.56E-05
hsa-miR-30a-3p	2	117	0.020	0.00	4.63E-09
hsa-miR-196a-5p	2	476	0.005	0.00	4.69E-12
hsa-miR-5701	2	148	0.015	0.00	1.70E-11
hsa-miR-664b-3p	2	7	0.326	0.19	1.04E-05
hsa-miR-369-5p	2	17	0.118	0.04	2.70E-09
hsa-miR-34c-5p	2	31	0.065	0.01	2.77E-13
hsa-miR-429	2	2449	0.001	0.00	4.69E-10
hsa-miR-671-5p	2	44	0.044	0.00	1.08E-07
hsa-miR-127-5p	2	48	0.041	0.00	3.31E-07
hsa-miR-378f	2	25	0.080	0.00	2.71E-08
hsa-miR-338-3p	2	14	0.133	0.09	5.13E-05
hsa-miR-410	2	8	0.242	0.13	1.35E-06
hsa-miR-502-5p	2	7	0.282	0.14	3.92E-06
hsa-miR-219-1-3p	2	5	0.333	0.20	6.49E-04
hsa-miR-202-5p	2	5	0.367	0.37	1.04E-02
hsa-miR-92b-5p	2	50	0.036	0.11	5.69E-01
hsa-miR-139-3p	2	14	0.120	0.08	1.68E-05
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hsa-miR-671-3p	2	12	0.138	0.02	4.16E-12
hsa-miR-485-5p	2	28	0.056	0.01	3.47E-05
hsa-miR-4521	2	19	0.082	0.10	1.69E-04
hsa-miR-34a-5p	1	373	0.004	0.00	1.18E-12
hsa-miR-30c-1-3p	1	7	0.210	0.03	2.80E-09
hsa-miR-422a	1	23	0.063	0.00	6.45E-09
hsa-miR-24-1-5p	1	24	0.059	0.00	6.36E-19

hsa-miR-193a-3p	1	14	0.100	0.02	1.74E-13
hsa-miR-337-3p	1	14	0.099	0.02	2.87E-09
hsa-miR-5100	1	42	0.032	0.01	1.40E-04
hsa-miR-2277-5p	1	5	0.276	0.10	4.82E-06
hsa-miR-3653	1	12	0.111	0.04	3.29E-05
hsa-miR-382-3p	1	16	0.083	0.03	2.13E-08
hsa-miR-409-5p	1	13	0.097	0.04	8.87E-09
hsa-miR-3934-5p	1	11	0.118	0.02	3.90E-07
hsa-miR-1290	1	27	0.047	0.02	5.34E-03
hsa-miR-4792	1	39	0.033	0.02	2.02E-04
hsa-miR-376a-3p	1	9	0.140	0.06	5.62E-09
hsa-miR-329	1	10	0.125	0.05	5.32E-09
hsa-miR-655	1	10	0.124	0.04	3.53E-08
hsa-miR-543	1	13	0.087	0.02	7.45E-08
hsa-miR-27b-5p	1	49	0.024	0.00	2.15E-17
hsa-miR-30b-3p	1	7	0.164	0.03	1.91E-08
hsa-miR-193b-3p	1	246	0.005	0.00	2.25E-15
hsa-miR-323a-3p	1	10	0.115	0.07	7.49E-07
hsa-miR-708-5p	1	78	0.014	0.00	8.98E-07
hsa-miR-320d	1	14	0.072	0.00	1.35E-03
hsa-miR-433	1	11	0.091	0.02	1.93E-09
hsa-miR-200a-5p	1	1295	0.001	0.00	9.58E-16
hsa-miR-485-3p	1	6	0.157	0.07	3.54E-07
hsa-miR-769-3p	1	7	0.140	0.01	8.18E-11
hsa-miR-203a	1	3007	0.000	0.00	1.05E-07
hsa-miR-323b-3p	1	5	0.185	0.12	1.33E-04
hsa-miR-377-5p	1	8	0.099	0.04	4.88E-04
hsa-miR-552	1	873	0.001	0.01	4.15E-04
hsa-miR-154-5p	1	11	0.073	0.03	4.17E-09
hsa-miR-1248	1	94	0.009	0.00	3.05E-10
hsa-miR-5091	1	10	0.079	0.01	1.36E-10
hsa-miR-4448	1	9	0.084	0.01	5.58E-09
hsa-miR-191-3p	1	6	0.135	0.04	2.54E-06
hsa-miR-377-3p	1	5	0.148	0.05	1.87E-08
hsa-miR-29a-5p	1	10	0.079	0.01	6.63E-08
hsa-miR-212-5p	1	13	0.058	0.00	5.86E-12
hsa-miR-3607-3p	1	54	0.014	0.00	5.32E-07
hsa-miR-514a-3p	1	6	0.131	0.22	2.30E-01
hsa-miR-194-3p	1	173	0.004	0.01	3.03E-11
hsa-miR-708-3p	1	36	0.020	0.01	1.12E-06
hsa-miR-10a-3p	1	133	0.005	0.00	2.04E-12
hsa-miR-760	1	5	0.125	0.08	1.53E-04
hsa-miR-23b-5p	1	17	0.037	0.00	1.04E-15
hsa-miR-504	1	18	0.035	0.01	3.19E-05
hsa-miR-9-3p	1	5	0.126	0.08	2.26E-06
hsa-miR-29b-1-5p	1	5	0.113	0.04	2.61E-08
hsa-miR-1275	1	24	0.024	0.00	1.81E-04
hsa-miR-1268b	1	16	0.035	0.00	5.47E-05
hsa-miR-509-3-5p	1	7	0.080	0.08	7.94E-02
hsa-miR-204-5p	1	20	0.027	0.02	2.91E-05
hsa-miR-656	1	6	0.082	0.03	1.22E-07
hsa-miR-125a-3p	1	6	0.083	0.01	2.07E-09
hsa-miR-497-5p	0	64	0.008	0.00	1.27E-09
hsa-miR-92a-1-5p	0	9	0.054	0.01	3.54E-07
hsa-miR-31-3p	0	18	0.027	0.06	2.30E-03

hsa-miR-455-5p	0	302	0.002	0.00	7.72E-12
hsa-miR-4664-3p	0	9	0.056	0.04	1.64E-05
hsa-miR-1268a	0	15	0.030	0.00	3.42E-05
hsa-miR-1262	0	5	0.098	0.05	4.34E-02
hsa-miR-490-3p	0	17	0.026	0.07	1.04E-01
hsa-miR-6724-5p	0	6	0.062	0.01	1.21E-04
hsa-miR-940	0	5	0.082	0.01	3.65E-08
hsa-miR-212-3p	0	8	0.046	0.00	7.12E-10
hsa-let-7e-3p	0	10	0.036	0.00	9.01E-08
hsa-miR-509-3p	0	6	0.066	0.06	9.67E-02
hsa-miR-299-5p	0	8	0.045	0.01	2.87E-07
hsa-miR-135b-5p	0	317	0.001	0.00	3.12E-05
hsa-miR-3651	0	7	0.050	0.01	4.89E-05
hsa-miR-299-3p	0	5	0.069	0.01	3.33E-10
hsa-miR-4485	0	7	0.045	0.03	2.77E-02
hsa-miR-4488	0	6	0.057	0.03	2.03E-02
hsa-miR-296-3p	0	6	0.049	0.00	1.86E-05
hsa-miR-129-2-3p	0	11	0.028	0.02	2.39E-01
hsa-miR-195-3p	0	45	0.007	0.00	4.88E-08
hsa-miR-125b-2-3p	0	34	0.009	0.00	1.93E-04
hsa-miR-125b-1-3p	0	18	0.018	0.00	4.18E-07
hsa-miR-508-3p	0	6	0.050	0.04	1.26E-01
hsa-miR-141-5p	0	53	0.006	0.01	4.60E-07
hsa-miR-200b-5p	0	213	0.001	0.00	2.53E-14
hsa-miR-511	0	19	0.015	0.00	6.15E-12
hsa-miR-129-5p	0	22	0.013	0.00	6.84E-02
hsa-miR-133b	0	16	0.018	0.00	2.89E-03
hsa-miR-214-3p	0	251	0.001	0.00	1.86E-06
hsa-miR-217	0	9	0.033	0.00	8.36E-06
hsa-miR-203b-3p	0	38	0.007	0.00	1.86E-06
hsa-miR-138-5p	0	14	0.020	0.00	1.90E-08
hsa-miR-30c-2-3p	0	32	0.008	0.00	2.39E-10
hsa-miR-99a-3p	0	8	0.032	0.00	5.03E-05
hsa-miR-149-5p	0	53	0.005	0.00	5.20E-11
hsa-miR-577	0	17	0.015	0.00	7.71E-08
hsa-miR-483-3p	0	16	0.015	0.01	3.38E-01
hsa-miR-193b-5p	0	12	0.020	0.00	1.33E-07
hsa-miR-224-3p	0	8	0.028	0.00	4.03E-08
hsa-miR-365a-5p	0	16	0.015	0.00	1.21E-11
hsa-miR-206	0	6	0.040	0.00	3.40E-04
hsa-miR-483-5p	0	10	0.022	0.00	3.09E-01
hsa-miR-935	0	11	0.019	0.00	5.18E-01
hsa-miR-592	0	40	0.005	0.00	7.49E-04
hsa-miR-4449	0	7	0.031	0.00	1.04E-04
hsa-miR-455-3p	0	77	0.003	0.00	5.02E-13
hsa-miR-3131	0	10	0.020	0.00	4.04E-05
hsa-miR-549a	0	8	0.025	0.00	1.74E-05
hsa-miR-214-5p	0	112	0.002	0.00	5.74E-07
hsa-miR-200c-5p	0	11	0.017	0.00	9.75E-11
hsa-miR-135b-3p	0	16	0.011	0.00	2.18E-05
hsa-miR-3610	0	9	0.020	0.00	5.83E-01
hsa-miR-615-3p	0	12	0.015	0.00	1.05E-02
hsa-miR-147a	0	5	0.034	0.00	2.43E-04
hsa-miR-1247-5p	0	27	0.006	0.00	8.84E-03
hsa-miR-1247-3p	0	14	0.012	0.00	1.27E-02

hsa-miR-585	0	10	0.017	0.00	5.65E-05
hsa-miR-10b-3p	0	17	0.010	0.00	1.06E-13
hsa-miR-1269a	0	5	0.035	0.00	4.31E-02
hsa-miR-653	0	5	0.033	0.00	7.87E-03
hsa-miR-1911-5p	0	25	0.007	0.00	6.02E-01
hsa-miR-887	0	21	0.008	0.00	2.64E-06
hsa-miR-5571-3p	0	10	0.017	0.00	2.12E-05
hsa-miR-4684-3p	0	9	0.019	0.00	3.36E-07
hsa-miR-4532	0	7	0.025	0.00	4.25E-05

Supplemental Figure 1

A**B****C****D****E****F****G****H**

Supplemental Figure 1. Evaluation of calibration curves for erythrocyte miRNA markers by hydrolysis probes based miRNA RT-qPCR assays.

Calibration curves generated by synthetic RNA oligos of **(a)** hsa-miR-144-3p, **(b)** hsa-miR-144-5p, **(c)** hsa-miR-451a, **(d)** hsa-miR-486-5p, **(e)** hsa-miR-363, **(f)** hsa-miR-20b-5p, and **(g)** hsa-miR-200b-3p at 10^7 , 10^6 , 10^5 , 10^4 , 10^3 , and 10^2 copies were used to investigate assay efficiencies. Box insert indicates slope and intercept of the calibration curve, PCR efficiency estimated from the slope, and R^2 of the calibration curve. Data points represent mean \pm s.d. of triplicate technical replicates. Assay for hsa-miR-144-3p demonstrated suboptimal differentiation towards low copies. All other assays showed linear range between 10^2 copies to 10^7 copies. All no-template controls showed no signal amplifications. **(h)** Detection of hsa-miR-451a in stool spiked with blood at concentrations of 1800, 3600, 7200, 18000, and 36000 erythrocytes per gram of stool. Normalization of the erythrocyte marker to hsa-miR-200b-3p was able to correct for variations in input RNA amount and qRT-PCR efficiency.

Supplemental Table 1. Patient characteristics of samples for marker discovery by small RNA sequencing

	Normal whole blood	Colorectal epithelial tissue ^a			CRC
		Normal Colon	Advanced adenoma ^c		
			Adenoma	SSA	
No. of cases	25	20	26	14	35
Age					
Mean±SD	63±9	62±5	62±11	63±13	59±10
Gender, number (%)					
Female	13 (52)	9 (40)	13 (50)	8 (57)	17 (49)
Location ^b, number (%)					
Proximal			13 (50)	12 (86)	17 (49)
Distal			13 (50)	2 (14)	18 (51)
TMN stage, number (%)					
I					6 (17)
II					10 (29)
III					15 (43)
IV					4 (11)

^a In technical validation by RT-qPCR, all whole blood samples (n = 25) and a randomly selected subset in each group (5 normal colon, 5 adenoma, 5 SSA, and 5 CRC) were included.

^b Proximal lesions include tumors at or proximal to the splenic flexure, and distal lesions are those distal to the splenic flexure.

^c Advanced adenoma includes 1) adenoma measuring ≥1 cm in the greatest dimension, with high-grade dysplasia, or with ≥ 25% villous histologic features, and 2) Sessile serrated adenoma (SSA) ≥1cm.

Supplemental Table 2. Candidate miRNA markers: sequences, miRBase accession number and RT-qPCR assay information

miRNA name	Sequence (5' to 3')	Length (no. of bases)	miRBase Accession Number	Vendor's Assay Number	
				Locked nucleic acid assay (Exiqon) ^a	Hydrolysis probe assay (TaqMan) ^b
hsa-miR-144-3p	UACAGUAUAGAUGAUGUACU	20	MIMAT0000436	204754	002676
hsa-miR-144-5p	GGAUAUCAUCAUAUACUGUAAG	22	MIMAT0004600	204670	002148
hsa-miR-486-5p	UCCUGUACUGAGCUGCCCCGAG	22	MIMAT0002177	204001	001278
hsa-miR-451a	AAACCGUUACCAUUACUGAGUU	22	MIMAT0001631	204734	001141
hsa-miR-363-3p	AAUUGCACGGUAUCCAUCUGUA	22	MIMAT0000707	204726	001271
hsa-miR-20b-5p	CAAAGUGCUCUAUAGUGCAGGUAG	23	MIMAT0001413	204755	001014
hsa-miR-106a-5p	AAAAGUGC UUACAGUGCAGGUAG	23	MIMAT0000103	204563	
hsa-miR-32-5p	UAUUGCACAUAUAAGUUGCA	22	MIMAT0000090	204792	
hsa-miR-185-5p	UGGAGAGAAAGGCAGUUCUGA	22	MIMAT0000455	206037	
hsa-miR-101-3p	UACAGUACUGUGAUAAACUGAA	21	MIMAT0000099	204786	
hsa-miR-15b-5p	UAGCAGCACAUCAUGGUUUACA	22	MIMAT0000417	204243	
hsa-miR-142-5p	CAUAAAGUAGAAAGCACUACU	21	MIMAT0000433	204722	
hsa-miR-16-5p	UAGCAGCACGUAAAUAUUGGCG	22	MIMAT0000069	205702	
hsa-miR-15a-5p	UAGCAGCACAUAAUGGUUUGUG	22	MIMAT0000068	204066	
hsa-miR-15b-3p	CGAAUCAUUAUUUGCUGCUCUA	22	MIMAT0004586	205898	
hsa-miR-200a-5p	CAUCUUACCGGACAGUGCUGGA	22	MIMAT0001620	206063	
hsa-miR-200b-3p	UAAUACUGCCUGGUAAUGAUGA	22	MIMAT0000318	206071	002251
hsa-miR-200a-3p	UAACACUGUCUGGUAAACGAUGU	22	MIMAT0000682	204707	
hsa-miR-203a	GUGAAAUGUUUAGGACCACUAG	22	MIMAT0000264	205914	
hsa-miR-375	UUUGUUCGUUCGGCUCGCGUGA	22	MIMAT0000728	204362	
hsa-miR-30e-3p	CUUUCAGUCGGAUGUUUACAGC	22	MIMAT0000693	204410	
cel-miR-39-3p	UCACCGGGUGUAAAUCAGCUUG	22	MIMAT0000010		000200

^a For technical validation of sequencing data

^b For quantification of miRNA markers in stool. RT-qPCR efficiency of each assay was evaluated as shown in Supplementary Figure 1

Supplemental Table 3. Patient characteristics of *exploratory set* samples

	Normal	CRC	Pancreatic cancer
No. of cases	20	20	20
Age			
Mean ± SD	71.2±9	63.4±14	62.8±10
Gender, number (%)			
Female	10 (50)	10 (50)	8 (40)
CRC Location, number (%)			
Proximal		10 (50)	
Distal		10 (50)	
Pancreatic cancer location, number (%)			
Head			11 (55)
Body			4 (20)
Tail			5 (25)
TMN stage, number (%)			
I		5 (25)	0 (0)
II		7 (35)	0 (0)
III		8 (40)	10 (50)
IV		0 (0)	10 (50)

Supplemental Table 4. Patient characteristics of *feasibility set* samples

	Normal Colon	Advanced Adenoma ^a	CRC
No. of cases	115	31	29
Age			
Mean ± SD	66.2±9	65.4±9	61.2±13
Gender, number (%)			
Female	60 (52)	10 (32)	15 (52)
Location, number (%)			
Proximal		23 (74)	16 (55)
Distal		8 (26)	13 (45)
Adenoma histology			
Tubular		20	
Tubulovillous		7	
SSA		4	
TMN stage^a, number (%)			
I			6 (21)
II			10 (34)
III			9 (31)
IV			1 (3)

^a Advanced adenoma includes adenoma measuring ≥1 cm in the greatest dimension, with high-grade dysplasia, or with ≥ 25% villous histologic features, and sessile serrated adenoma (SSA)

^b TNM stage data of three patients were unavailable.

Supplemental Table 5. Erythrocyte markers level in blood from dietary animals relative to human blood

	hsa-miR-144-3p	hsa-miR-451a-5p	hsa-miR-144-5p	hsa-miR-20b-5p	hsa-miR-486-5p	hsa-miR-363-3p
Human	1.00	1.00	1.00	1.00	1.00	1.00
Pig	0.80	1.06	0.67	0.00	0.29	0.01
Bovine	0.15	0.17	0.16	0.00	0.42	0.00
Sheep	0.21	0.62	0.15	0.00	1.17	0.00
Rabbit	0.34	0.19	0.18	0.00	0.07	0.00
Chicken	0.11	0.17	0.05	0.32	0.00	0.47
Turkey	0.17	0.12	0.04	0.15	0.00	0.32

Stool hsa-miR-451a levels and FIT results in *pilot set*^a

Sample #	Pathology	Stage	Cancer Site	hsa-miR-451a, copies per μ L stool homogenate	hemoglobin, ng per mL collection buffer
36	CRC	III	Proximal	0	52.71
16	CRC	III	Proximal	0	166.41
21	CRC	I	Proximal	365	598.77
56	CRC	II	Proximal	647	598.77
17	CRC	I	Proximal	920	21.25
41	CRC	III	Proximal	2504	381.17
49	CRC	II	Proximal	3635	425.33
48	CRC	III	Proximal	12000	598.77
10	CRC	III	Proximal	14864	598.77
26	CRC	II	Proximal	39073	598.77
34	CRC	II	Distal	0	598.77
24	CRC	I	Distal	505	15.82
22	CRC	I	Distal	505	24.57
43	CRC	II	Distal	774	598.77
51	CRC	II	Distal	3895	598.77
57	CRC	II	Distal	30899	598.77
28	CRC	I	Distal	34270	118.20
30	CRC	III	Distal	54424	231.23
54	CRC	III	Distal	56335	598.77
33	CRC	III	Distal	68348	598.77
39	Healthy control			0	4.23
45	Healthy control			0	5.66
32	Healthy control			0	6.37
35	Healthy control			0	8.37
20	Healthy control			0	17.86
13	Healthy control			0	18.10
25	Healthy control			0	19.18
15	Healthy control			0	17.98
44	Healthy control			0	4.71
1	Healthy control			1	N/A
42	Healthy control			7	5.42
18	Healthy control			15	13.68
3	Healthy control			54	N/A
59	Healthy control			285	20.64
12	Healthy control			299	8.73
31	Healthy control			331	71.10
19	Healthy control			362	3.87
7	Healthy control			471	N/A
4	Healthy control			689	N/A
5	Healthy control			1345	N/A
29	Pancreatic cancer	III	Body	0	N/A
47	Pancreatic cancer	III	Body	0	N/A
37	Pancreatic cancer	IV	Body	0	N/A
38	Pancreatic cancer	IV	Body	0	N/A
8	Pancreatic cancer	III	Head	0	N/A

23	Pancreatic cancer	III	Head	0	N/A
60	Pancreatic cancer	IV	Head	0	N/A
6	Pancreatic cancer	III	Tail	0	N/A
52	Pancreatic cancer	III	Tail	0	N/A
46	Pancreatic cancer	IV	Tail	0	N/A
50	Pancreatic cancer	IV	Tail	0	N/A
27	Pancreatic cancer	III	Head	0	N/A
53	Pancreatic cancer	IV	Head	4	N/A
40	Pancreatic cancer	III	Head	5	N/A
55	Pancreatic cancer	IV	Head	258	N/A
2	Pancreatic cancer	III	Head	324	N/A
11	Pancreatic cancer	III	Head	383	N/A
58	Pancreatic cancer	IV	Head	446	N/A
9	Pancreatic cancer	IV	Head	1336	N/A
14	Pancreatic cancer	IV	Tail	1513	N/A

^a Modeling of markers was not performed in this cohort due to sample size limitation. hsa-miR-451a alone yielded an AUC of 0.86 (95% CI, 0.74-0.98, $P < .0001$) to discriminate CRC cases (n=20) from controls (n=40); FIT data were available to all 20 CRC cases and 15 healthy controls. In this subset, at 100% specificity, FIT detected 80% and hsa-miR-451a detected 85% of CRCs.