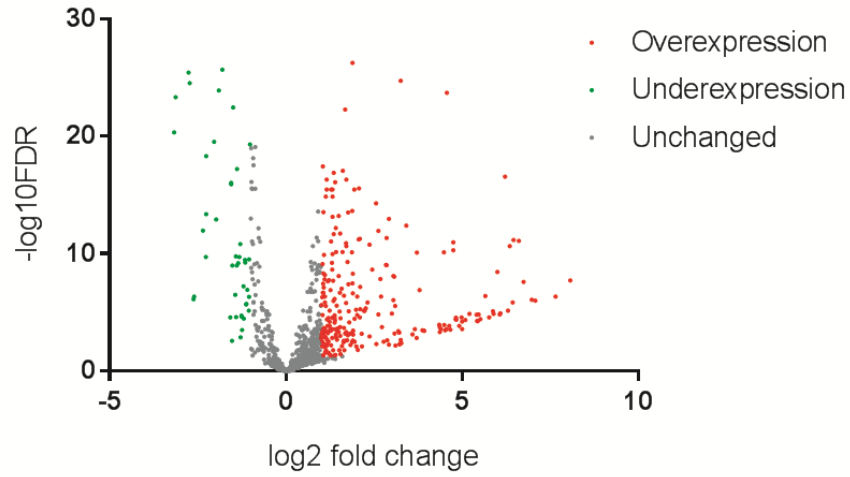
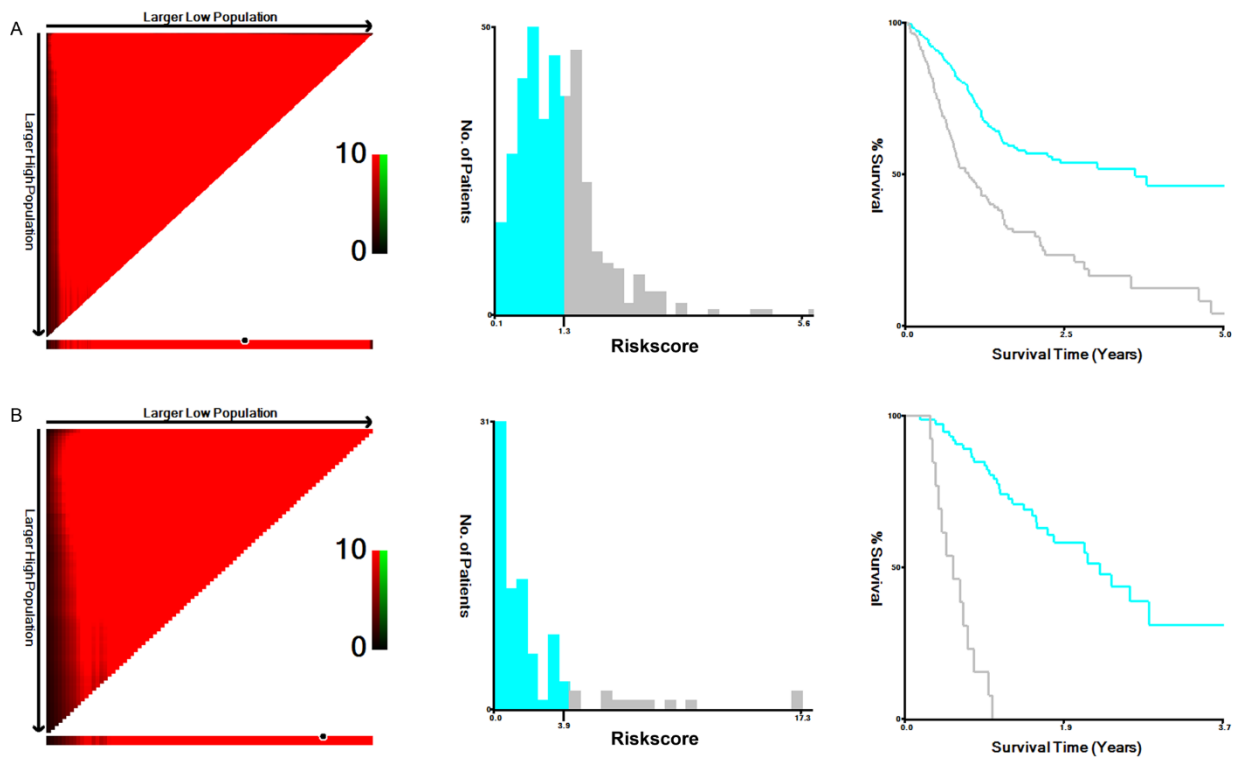


Supplementary Figure 1. Volcano plot showing the differentially expressed miRNAs between gastric tumor and normal tissue samples from the TCGA cohort.



Supplementary Figure 2.



**Supplementary Table 1.** Summary of 312 differentially expressed microRNAs.

gene	logFC	PValue	FDR
hsa-mir-6510	-4.307	2.09E-37	5.33E-35
hsa-mir-490	-3.167	1.26E-22	4.61E-21
hsa-mir-6507	-3.127	1.07E-25	4.53E-24
hsa-mir-133a-2	-3.010	2.48E-35	2.99E-33
hsa-mir-133a-1	-2.976	3.93E-35	4.14E-33
hsa-mir-1-1	-2.896	2.32E-33	1.96E-31
hsa-mir-1-2	-2.884	4.40E-33	3.37E-31
hsa-mir-5683	-2.765	6.54E-28	3.67E-26
hsa-mir-133b	-2.732	5.75E-27	2.85E-25
hsa-mir-205	-2.618	1.65E-07	7.64E-07
hsa-mir-6499	-2.600	9.94E-08	4.71E-07
hsa-mir-548ba	-2.353	8.29E-14	1.06E-12
hsa-mir-944	-2.270	2.28E-11	1.96E-10
hsa-mir-885	-2.262	1.64E-20	4.93E-19
hsa-mir-383	-2.259	3.00E-15	4.44E-14
hsa-mir-145	-2.237	9.73E-37	1.37E-34
hsa-mir-139	-2.106	2.17E-49	9.16E-47
hsa-mir-551b	-2.041	8.19E-22	2.88E-20
hsa-mir-204	-1.979	9.06E-15	1.23E-13
hsa-mir-143	-1.901	2.59E-26	1.21E-24
hsa-mir-29c	-1.805	3.38E-28	2.03E-26
hsa-mir-137	-1.578	8.11E-06	2.78E-05
hsa-mir-486-1	-1.553	5.84E-18	1.20E-16
hsa-mir-486-2	-1.551	4.31E-18	9.09E-17
hsa-mir-802	-1.525	0.001329908	0.002761361
hsa-mir-1258	-1.522	1.43E-10	1.05E-09
hsa-mir-195	-1.492	8.38E-25	3.37E-23
hsa-mir-202	-1.435	6.68E-08	3.31E-07
hsa-mir-6720	-1.420	1.93E-11	1.68E-10
hsa-mir-378i	-1.411	7.40E-06	2.56E-05
hsa-mir-203a	-1.395	1.43E-10	1.05E-09
hsa-mir-30a	-1.388	2.36E-19	6.21E-18
hsa-mir-365a	-1.366	3.05E-37	5.33E-35
hsa-mir-365b	-1.365	3.16E-37	5.33E-35
hsa-mir-605	-1.353	8.17E-11	6.44E-10
hsa-mir-451a	-1.323	2.30E-11	1.96E-10
hsa-mir-149	-1.294	1.53E-12	1.54E-11
hsa-mir-4501	-1.285	0.0006351	0.00140892
hsa-mir-129-2	-1.264	5.50E-06	1.92E-05
hsa-mir-129-1	-1.257	6.99E-06	2.42E-05
hsa-mir-187	-1.249	0.000118719	0.000316709

---

hsa-mir-100	-1.200	1.10E-08	6.07E-08
hsa-mir-4732	-1.192	1.05E-05	3.49E-05
hsa-mir-218-2	-1.160	4.23E-11	3.53E-10
hsa-mir-218-1	-1.157	6.98E-11	5.66E-10
hsa-mir-504	-1.131	5.05E-07	2.15E-06
hsa-let-7c	-1.118	4.59E-07	1.97E-06
hsa-mir-144	-1.092	2.29E-08	1.22E-07
hsa-mir-153-1	-1.054	1.85E-06	7.28E-06
hsa-mir-378d-2	-1.045	1.01E-07	4.74E-07
hsa-mir-6511b-2	-1.045	3.58E-11	3.02E-10
hsa-mir-28	-1.019	1.41E-21	4.75E-20
hsa-mir-3942	1.004	0.000759049	0.001657715
hsa-mir-3194	1.008	0.000341938	0.000803161
hsa-mir-141	1.016	5.88E-07	2.49E-06
hsa-mir-203b	1.024	0.000396434	0.000918116
hsa-mir-200c	1.026	1.12E-07	5.26E-07
hsa-mir-548s	1.026	0.000210915	0.000519887
hsa-mir-6805	1.029	0.00438711	0.007987762
hsa-mir-4640	1.034	0.001615035	0.003280661
hsa-mir-362	1.038	9.77E-11	7.56E-10
hsa-mir-95	1.039	4.89E-06	1.73E-05
hsa-mir-106b	1.044	1.33E-19	3.63E-18
hsa-mir-3652	1.044	0.000138552	0.000360492
hsa-mir-34c	1.047	4.39E-08	2.21E-07
hsa-mir-3691	1.049	0.000831899	0.00180745
hsa-mir-550a-2	1.054	6.66E-09	3.74E-08
hsa-mir-4660	1.054	0.000299878	0.000712104
hsa-mir-3144	1.059	0.029260734	0.044930416
hsa-mir-532	1.060	1.85E-15	2.84E-14
hsa-mir-320b-1	1.061	4.41E-08	2.21E-07
hsa-mir-130b	1.062	7.55E-10	4.93E-09
hsa-mir-320b-2	1.067	1.41E-08	7.65E-08
hsa-mir-3177	1.073	0.003587419	0.006646581
hsa-mir-6777	1.075	0.003402985	0.006346718
hsa-mir-4726	1.076	0.002673458	0.005169095
hsa-mir-548o	1.077	7.65E-05	0.000218571
hsa-mir-3117	1.080	0.000191566	0.000480625
hsa-mir-500b	1.083	1.47E-11	1.29E-10
hsa-mir-559	1.092	0.000565461	0.001277972
hsa-mir-3934	1.098	2.53E-09	1.54E-08
hsa-mir-4766	1.101	0.000104696	0.000283791
hsa-mir-3677	1.101	9.86E-08	4.71E-07
hsa-mir-421	1.104	9.99E-10	6.33E-09
hsa-mir-5580	1.105	0.005496048	0.009795282

---

---

hsa-mir-4797	1.105	0.000105379	0.000284725
hsa-mir-5703	1.106	0.000166871	0.000423711
hsa-mir-223	1.108	3.36E-07	1.48E-06
hsa-mir-588	1.113	0.015996973	0.025784796
hsa-mir-7112	1.123	0.000570506	0.001285927
hsa-mir-3682	1.130	6.90E-07	2.86E-06
hsa-mir-1307	1.130	8.52E-17	1.41E-15
hsa-mir-940	1.130	3.70E-07	1.61E-06
hsa-mir-4793	1.139	0.010453871	0.017450719
hsa-mir-4677	1.152	1.97E-17	3.39E-16
hsa-mir-181a-1	1.156	2.07E-18	4.85E-17
hsa-mir-5582	1.160	0.00095966	0.002074341
hsa-mir-6850	1.161	0.017409177	0.027795334
hsa-mir-6728	1.163	0.003711484	0.006846349
hsa-mir-7854	1.166	1.25E-05	4.03E-05
hsa-mir-3680-1	1.174	0.000197458	0.000490624
hsa-mir-1229	1.177	4.86E-05	0.000144443
hsa-mir-5586	1.179	5.14E-09	2.95E-08
hsa-mir-3145	1.181	0.002367561	0.004609362
hsa-mir-200b	1.186	3.91E-09	2.27E-08
hsa-mir-548k	1.187	0.000254496	0.000618271
hsa-mir-4645	1.194	1.25E-05	4.03E-05
hsa-mir-3200	1.203	9.23E-06	3.07E-05
hsa-mir-6718	1.204	0.0014949	0.003081175
hsa-mir-4431	1.213	0.017730541	0.028254907
hsa-mir-643	1.222	3.09E-09	1.85E-08
hsa-mir-4461	1.235	4.87E-05	0.000144443
hsa-mir-3684	1.236	2.06E-05	6.38E-05
hsa-mir-548v	1.241	1.80E-06	7.15E-06
hsa-mir-216a	1.242	0.000153395	0.000391855
hsa-mir-3196	1.243	0.026031608	0.040488275
hsa-mir-194-1	1.263	2.41E-08	1.27E-07
hsa-mir-4479	1.263	9.56E-05	0.000266867
hsa-mir-492	1.269	0.031895356	0.048621673
hsa-mir-181b-1	1.275	1.93E-17	3.39E-16
hsa-mir-7844	1.280	0.00014534	0.000374684
hsa-mir-6844	1.281	0.003450564	0.006421249
hsa-mir-550a-1	1.283	8.38E-13	8.94E-12
hsa-mir-708	1.304	7.43E-11	5.97E-10
hsa-mir-200a	1.312	3.32E-10	2.29E-09
hsa-mir-3150b	1.313	0.000684759	0.001507185
hsa-mir-210	1.313	8.42E-06	2.84E-05
hsa-mir-181b-2	1.319	8.14E-17	1.37E-15
hsa-mir-1301	1.319	5.22E-15	7.46E-14

---

---

hsa-mir-3619	1.320	9.74E-05	0.000269156
hsa-mir-93	1.320	1.87E-17	3.35E-16
hsa-mir-503	1.324	1.23E-11	1.09E-10
hsa-mir-194-2	1.334	3.45E-09	2.04E-08
hsa-mir-3660	1.336	0.01060955	0.017640731
hsa-mir-7-2	1.347	2.47E-07	1.11E-06
hsa-mir-500a	1.351	5.34E-19	1.32E-17
hsa-mir-3127	1.355	1.77E-13	2.16E-12
hsa-mir-618	1.375	2.51E-05	7.69E-05
hsa-mir-3174	1.376	8.72E-06	2.92E-05
hsa-mir-4326	1.380	1.56E-07	7.24E-07
hsa-mir-5698	1.383	5.11E-06	1.79E-05
hsa-mir-3689b	1.385	0.029550791	0.045211102
hsa-mir-7702	1.389	1.58E-05	5.01E-05
hsa-mir-17	1.393	3.86E-18	8.34E-17
hsa-mir-3689a	1.403	0.028994827	0.044603356
hsa-mir-3618	1.410	0.000354788	0.000828495
hsa-mir-20a	1.411	4.93E-14	6.49E-13
hsa-mir-5092	1.411	0.00010129	0.000277232
hsa-mir-4746	1.418	7.78E-12	7.24E-11
hsa-mir-4684	1.422	0.000620349	0.001379825
hsa-mir-1254-1	1.438	6.64E-07	2.78E-06
hsa-mir-548d-2	1.440	0.000136653	0.00035776
hsa-mir-3131	1.450	0.001042266	0.002230027
hsa-mir-548d-1	1.476	8.14E-05	0.000231035
hsa-mir-188	1.492	4.29E-15	6.23E-14
hsa-mir-4741	1.493	0.000198864	0.000491621
hsa-mir-1292	1.496	1.28E-09	8.03E-09
hsa-mir-548x	1.511	0.010732323	0.017739899
hsa-mir-6783	1.522	2.35E-06	8.90E-06
hsa-mir-7-3	1.526	4.31E-08	2.19E-07
hsa-mir-6821	1.535	0.000455819	0.001047017
hsa-mir-4449	1.538	6.14E-05	0.000179221
hsa-mir-182	1.540	1.57E-13	1.94E-12
hsa-mir-449c	1.545	0.022725218	0.035808147
hsa-mir-3187	1.548	9.69E-06	3.22E-05
hsa-mir-3651	1.580	1.77E-08	9.59E-08
hsa-mir-6744	1.586	0.004208291	0.007695422
hsa-mir-1228	1.601	7.81E-12	7.24E-11
hsa-mir-19a	1.617	3.41E-19	8.71E-18
hsa-mir-1305	1.627	0.001813868	0.003632045
hsa-mir-1910	1.639	0.001278622	0.002668016
hsa-mir-4523	1.645	7.74E-05	0.000220446
hsa-mir-3944	1.648	7.86E-08	3.85E-07

---

---

hsa-mir-3689e	1.654	0.010432754	0.017450022
hsa-mir-216b	1.675	0.001278173	0.002668016
hsa-mir-6715b	1.678	0.000270581	0.00065358
hsa-mir-501	1.681	1.31E-24	5.03E-23
hsa-mir-584	1.701	1.28E-12	1.32E-11
hsa-mir-3690-1	1.703	3.81E-07	1.65E-06
hsa-mir-7705	1.709	2.40E-12	2.32E-11
hsa-mir-335	1.710	2.20E-18	5.01E-17
hsa-mir-4517	1.715	0.000192497	0.000481529
hsa-mir-662	1.736	0.001142275	0.002413379
hsa-mir-1304	1.738	3.96E-07	1.70E-06
hsa-mir-6854	1.747	6.40E-11	5.24E-10
hsa-mir-4691	1.754	0.000391815	0.000909918
hsa-mir-96	1.765	1.99E-15	2.99E-14
hsa-mir-217	1.774	7.37E-09	4.12E-08
hsa-mir-2115	1.781	2.14E-06	8.22E-06
hsa-mir-4525	1.800	2.40E-05	7.38E-05
hsa-mir-548az	1.811	0.00028029	0.000675098
hsa-mir-506	1.831	0.003201259	0.005983729
hsa-mir-301b	1.867	8.28E-12	7.58E-11
hsa-mir-614	1.873	0.0002876	0.00068877
hsa-mir-877	1.878	1.42E-15	2.26E-14
hsa-mir-3937	1.882	0.00173421	0.003489114
hsa-mir-146b	1.886	8.28E-29	5.37E-27
hsa-mir-1246	1.886	0.000215953	0.000530753
hsa-mir-1254-2	1.890	6.10E-09	3.47E-08
hsa-mir-4777	1.892	8.18E-10	5.27E-09
hsa-mir-3176	1.895	4.92E-08	2.46E-07
hsa-mir-622	1.900	0.001200159	0.002516751
hsa-mir-3654	1.901	0.000144446	0.000373592
hsa-mir-7641-1	1.904	0.000344095	0.000805755
hsa-mir-183	1.939	1.85E-17	3.35E-16
hsa-mir-211	1.943	0.00155892	0.003189733
hsa-mir-4687	1.948	1.14E-05	3.75E-05
hsa-mir-21	1.959	1.27E-52	1.07E-49
hsa-mir-4745	1.984	1.51E-06	6.12E-06
hsa-mir-3689f	1.993	0.004397887	0.007990126
hsa-mir-551a	2.018	9.95E-08	4.71E-07
hsa-mir-1276	2.021	4.98E-06	1.75E-05
hsa-mir-374c	2.041	0.009562849	0.016155273
hsa-mir-4661	2.062	5.32E-13	6.06E-12
hsa-mir-18a	2.069	1.36E-17	2.73E-16
hsa-mir-592	2.096	4.84E-13	5.58E-12
hsa-mir-4758	2.098	8.24E-06	2.79E-05

---

---

hsa-mir-675	2.107	1.34E-06	5.46E-06
hsa-mir-3189	2.107	1.25E-08	6.86E-08
hsa-mir-3161	2.143	0.000284743	0.000683871
hsa-mir-518d	2.157	0.004648201	0.008372721
hsa-mir-5094	2.205	1.78E-06	7.11E-06
hsa-mir-4713	2.229	2.02E-06	7.90E-06
hsa-mir-4658	2.259	1.10E-06	4.50E-06
hsa-mir-6891	2.312	3.23E-07	1.43E-06
hsa-mir-615	2.369	1.77E-12	1.76E-11
hsa-mir-466	2.372	0.000514864	0.001176234
hsa-mir-7974	2.446	3.44E-10	2.36E-09
hsa-mir-937	2.552	3.23E-16	5.24E-15
hsa-mir-1283-1	2.560	0.002738305	0.005258294
hsa-mir-4664	2.620	9.08E-14	1.14E-12
hsa-mir-514a-3	2.621	4.24E-06	1.54E-05
hsa-mir-4728	2.677	2.42E-09	1.49E-08
hsa-mir-509-1	2.696	9.34E-08	4.53E-07
hsa-mir-449a	2.718	6.31E-05	0.000183332
hsa-mir-519e	2.767	0.0015435	0.003173586
hsa-mir-508	2.834	1.18E-10	8.99E-10
hsa-mir-573	2.851	1.27E-10	9.60E-10
hsa-mir-3662	2.856	3.93E-13	4.61E-12
hsa-mir-3923	2.872	0.001145748	0.002414664
hsa-mir-935	2.918	8.06E-15	1.11E-13
hsa-mir-519d	2.919	0.003074968	0.0057991
hsa-mir-934	3.004	3.48E-06	1.30E-05
hsa-mir-509-3	3.043	1.30E-09	8.12E-09
hsa-mir-514a-1	3.049	1.99E-07	9.14E-07
hsa-mir-509-2	3.072	1.45E-09	8.97E-09
hsa-mir-521-2	3.076	0.000265428	0.000642976
hsa-mir-514a-2	3.094	6.82E-07	2.85E-06
hsa-mir-524	3.108	0.003665403	0.006776173
hsa-mir-1911	3.190	0.000160088	0.000407716
hsa-mir-302c	3.215	0.000223966	0.000545675
hsa-mir-1323	3.223	0.002810504	0.005360304
hsa-mir-517b	3.240	0.002337776	0.00456191
hsa-mir-515-2	3.251	0.001107184	0.002351022
hsa-mir-135b	3.255	3.54E-27	1.86E-25
hsa-mir-517a	3.272	0.002209912	0.004342553
hsa-mir-549a	3.414	3.09E-14	4.13E-13
hsa-mir-515-1	3.586	0.000319624	0.000754741
hsa-mir-122	3.657	0.000102932	0.000280816
hsa-mir-498	3.701	0.000714857	0.001565259
hsa-mir-548f-1	3.712	9.33E-12	8.37E-11

---

---

hsa-mir-184	3.790	2.37E-08	1.26E-07
hsa-mir-516b-2	3.874	0.000129559	0.000341306
hsa-mir-1283-2	3.907	0.000144473	0.000373592
hsa-mir-302d	3.924	0.000147851	0.000378839
hsa-mir-523	4.346	3.89E-05	0.000118433
hsa-mir-519b	4.359	6.75E-05	0.000194943
hsa-mir-520d	4.365	0.000193945	0.000483715
hsa-mir-516b-1	4.395	9.67E-05	0.000268087
hsa-mir-4652	4.478	8.56E-12	7.75E-11
hsa-mir-519c	4.490	3.93E-05	0.000119032
hsa-mir-517c	4.509	0.000131898	0.000346387
hsa-mir-518e	4.557	0.00010363	0.000281807
hsa-mir-196b	4.565	4.35E-26	1.93E-24
hsa-mir-518a-2	4.630	4.95E-05	0.000146398
hsa-mir-525	4.660	0.000113156	0.000303792
hsa-mir-483	4.746	1.07E-12	1.12E-11
hsa-mir-5589	4.748	5.35E-12	5.07E-11
hsa-mir-196a-1	4.801	1.62E-33	1.52E-31
hsa-mir-516a-1	4.809	1.18E-05	3.86E-05
hsa-mir-521-1	4.821	8.73E-06	2.92E-05
hsa-mir-518b	4.827	1.31E-05	4.22E-05
hsa-mir-196a-2	4.830	1.03E-32	7.27E-31
hsa-mir-518c	4.916	4.73E-05	0.000141402
hsa-mir-526b	4.982	8.20E-06	2.79E-05
hsa-mir-520a	4.996	2.01E-05	6.25E-05
hsa-mir-518a-1	4.997	9.97E-05	0.000274715
hsa-mir-520e	5.091	1.43E-05	4.58E-05
hsa-mir-516a-2	5.202	3.80E-06	1.40E-05
hsa-mir-302a	5.406	4.53E-06	1.63E-05
hsa-mir-520g	5.420	1.70E-05	5.35E-05
hsa-mir-527	5.436	1.80E-05	5.63E-05
hsa-mir-302b	5.460	4.23E-06	1.54E-05
hsa-mir-520h	5.510	1.21E-05	3.94E-05
hsa-mir-519a-1	5.652	8.54E-08	4.16E-07
hsa-mir-520b	5.762	7.95E-06	2.74E-05
hsa-mir-512-1	5.870	2.11E-06	8.17E-06
hsa-mir-519a-2	5.884	3.64E-06	1.35E-05
hsa-mir-1269a	5.995	5.48E-10	3.67E-09
hsa-mir-522	6.060	4.29E-06	1.55E-05
hsa-mir-518f	6.078	3.28E-06	1.23E-05
hsa-mir-552	6.210	1.12E-18	2.70E-17
hsa-mir-520c	6.294	1.81E-06	7.15E-06
hsa-mir-105-1	6.347	2.41E-12	2.32E-11
hsa-mir-512-2	6.426	3.20E-07	1.43E-06

---



---

hsa-mir-105-2	6.458	6.23E-13	7.01E-12
hsa-mir-767	6.604	7.54E-13	8.36E-12
hsa-mir-1269b	6.738	4.39E-09	2.53E-08
hsa-mir-520f	6.968	1.86E-07	8.59E-07
hsa-mir-371a	7.067	2.30E-07	1.04E-06
hsa-mir-373	7.645	9.57E-08	4.61E-07
hsa-mir-372	8.063	3.24E-09	1.92E-08

---

**Supplementary Table 2.** Identification of the Prognostic miRNAs from the TCGA Cohort.

Variable	Univariable analysis		Multivariable analysis		
	HR	<i>P</i> value	HR	<i>P</i> value	coefficient
hsa-mir-708	1.216	0.002	1.139	0.061	0.13047
hsa-mir-7-3	0.858	0.003	0.855	0.007	-0.15620
hsa-mir-378i	0.734	0.006	0.690	0.001	-0.37045
hsa-mir-4793	0.554	0.006	0.549	0.008	-0.60046
hsa-mir-7-2	0.863	0.006			
hsa-mir-100	1.120	0.006			
hsa-mir-30a	1.178	0.007			
hsa-mir-137	1.154	0.011			
hsa-mir-216a	1.142	0.012			
hsa-mir-6715b	0.830	0.013			
hsa-mir-96	0.876	0.016			
hsa-mir-1292	0.822	0.017			
hsa-mir-500b	0.835	0.020			
hsa-mir-217	1.114	0.024			
hsa-mir-3161	0.820	0.025			
hsa-mir-532	0.807	0.041			
hsa-mir-466	0.762	0.042	0.792	0.089	-0.23334
hsa-mir-3144	0.785	0.042	0.774	0.039	-0.25687
hsa-mir-3923	1.161	0.046	1.294	0.007	0.25761
hsa-mir-145	1.098	0.046	0.869	0.035	-0.14044
hsa-mir-549a	0.885	0.047	0.855	0.019	-0.15682
hsa-mir-181b-1	1.187	0.047	1.259	0.014	0.22993
hsa-mir-365a	1.210	0.049	1.172	0.145	0.15853
hsa-mir-365b	1.210	0.050			