

Table S1: The correlation between activity and expression of microRNA.

MicroRNA	SpearmanCorrelation	Pvalue	Qvalue
hsa-miR-323-5p	0.42	0.00	0.02
hsa-miR-148a	0.34	0.00	0.16
hsa-miR-425	0.30	0.00	0.22
hsa-miR-345	0.31	0.00	0.24
hsa-let-7b	0.29	0.01	0.26
hsa-miR-497	0.28	0.01	0.29
hsa-miR-500	0.24	0.02	0.52
hsa-miR-188-5p	0.23	0.02	0.56
hsa-miR-10b	0.24	0.02	0.59
hsa-miR-19a	0.22	0.03	0.63
hsa-miR-210	0.21	0.04	0.72
hsa-miR-362-5p	0.19	0.05	0.73
hsa-miR-330-5p	0.19	0.05	0.74
hsa-miR-125a-5p	0.20	0.04	0.74
hsa-miR-504	0.19	0.05	0.75
hsa-miR-372	0.18	0.06	0.77
hsa-miR-502-5p	0.18	0.07	0.79
hsa-miR-423-5p	0.17	0.07	0.83
hsa-miR-494	0.16	0.09	0.99
hsa-miR-453	0.15	0.10	1.00
hsa-miR-34c-5p	0.14	0.11	1.00
hsa-miR-198	0.13	0.12	1.00
hsa-miR-200b	0.13	0.13	1.00
hsa-miR-509-5p	0.13	0.13	1.00
hsa-miR-369-5p	0.13	0.14	1.00
hsa-miR-496	0.13	0.14	1.00
hsa-miR-19b	0.12	0.14	1.00
hsa-miR-451	0.12	0.15	1.00
hsa-miR-181c	0.12	0.15	1.00
hsa-miR-219-5p	0.12	0.16	1.00
hsa-miR-329	0.11	0.17	1.00
hsa-miR-122	0.11	0.17	1.00
hsa-miR-34a	0.11	0.17	1.00
hsa-miR-514	0.10	0.20	1.00
hsa-miR-29b	0.10	0.20	1.00
hsa-miR-147	0.09	0.22	1.00
hsa-miR-7	0.08	0.25	1.00
hsa-miR-491-5p	0.08	0.25	1.00
hsa-miR-383	0.08	0.25	1.00

hsa-miR-15b	0.07	0.26	1.00
hsa-miR-483-5p	0.07	0.27	1.00
hsa-miR-520g	0.07	0.28	1.00
hsa-miR-143	0.06	0.29	1.00
hsa-miR-125b	0.06	0.31	1.00
hsa-miR-365	0.06	0.31	1.00
hsa-miR-448	0.06	0.31	1.00
hsa-miR-506	0.06	0.32	1.00
hsa-miR-141	0.05	0.33	1.00
hsa-miR-510	0.05	0.33	1.00
hsa-miR-519a	0.05	0.33	1.00
hsa-miR-378	0.05	0.34	1.00
hsa-miR-214	0.05	0.34	1.00
hsa-miR-136	0.05	0.34	1.00
hsa-miR-507	0.05	0.34	1.00
hsa-miR-16	0.05	0.34	1.00
hsa-miR-129-5p	0.05	0.35	1.00
hsa-miR-342-5p	0.04	0.35	1.00
hsa-let-7a	0.04	0.36	1.00
hsa-miR-521	0.04	0.36	1.00
hsa-miR-138	0.04	0.37	1.00
hsa-miR-503	0.04	0.38	1.00
hsa-miR-346	0.03	0.38	1.00
hsa-miR-326	0.03	0.39	1.00
hsa-miR-518b	0.03	0.41	1.00
hsa-miR-381	0.02	0.43	1.00
hsa-miR-146b-5p	0.02	0.44	1.00
hsa-miR-190	0.01	0.45	1.00
hsa-miR-489	0.01	0.46	1.00
hsa-miR-15a	0.01	0.47	1.00
hsa-miR-202	0.01	0.48	1.00
hsa-miR-24	0.01	0.48	1.00
hsa-miR-410	0.00	0.51	1.00
hsa-miR-520f	0.00	0.51	1.00
hsa-miR-203	-0.01	0.55	1.00
hsa-miR-128	-0.02	0.55	1.00
hsa-miR-196b	-0.02	0.56	1.00
hsa-miR-511	-0.02	0.58	1.00
hsa-miR-148b	-0.03	0.59	1.00
hsa-miR-182	-0.03	0.59	1.00
hsa-miR-98	-0.03	0.60	1.00
hsa-miR-505	-0.04	0.62	1.00

hsa-miR-196a	-0.04	0.62	1.00
hsa-miR-23b	-0.04	0.63	1.00
hsa-miR-30b	-0.04	0.64	1.00
hsa-miR-150	-0.04	0.64	1.00
hsa-miR-31	-0.04	0.64	1.00
hsa-miR-30a	-0.04	0.64	1.00
hsa-miR-325	-0.05	0.65	1.00
hsa-miR-137	-0.05	0.66	1.00
hsa-miR-206	-0.05	0.66	1.00
hsa-miR-367	-0.05	0.66	1.00
hsa-miR-29a	-0.05	0.67	1.00
hsa-miR-340	-0.05	0.68	1.00
hsa-miR-296-5p	-0.05	0.68	1.00
hsa-miR-195	-0.06	0.68	1.00
hsa-miR-106b	-0.06	0.69	1.00
hsa-miR-183	-0.06	0.69	1.00
hsa-miR-223	-0.06	0.69	1.00
hsa-miR-498	-0.06	0.70	1.00
hsa-miR-493	-0.06	0.71	1.00
hsa-miR-324-5p	-0.07	0.72	1.00
hsa-miR-153	-0.07	0.73	1.00
hsa-miR-144	-0.07	0.73	1.00
hsa-miR-370	-0.08	0.75	1.00
hsa-miR-135a	-0.08	0.75	1.00
hsa-miR-185	-0.08	0.75	1.00
hsa-miR-302a	-0.08	0.75	1.00
hsa-let-7f	-0.08	0.75	1.00
hsa-miR-379	-0.08	0.75	1.00
hsa-miR-433	-0.08	0.75	1.00
hsa-miR-520b	-0.09	0.77	1.00
hsa-miR-488	-0.09	0.77	1.00
hsa-miR-17	-0.09	0.78	1.00
hsa-miR-492	-0.09	0.78	1.00
hsa-miR-339-5p	-0.10	0.79	1.00
hsa-miR-28-5p	-0.10	0.80	1.00
hsa-miR-429	-0.11	0.82	1.00
hsa-miR-192	-0.11	0.82	1.00
hsa-miR-193b	-0.11	0.82	1.00
hsa-miR-93	-0.11	0.83	1.00
hsa-miR-21	-0.11	0.83	1.00
hsa-miR-135b	-0.11	0.84	1.00
hsa-miR-501-5p	-0.11	0.84	1.00

hsa-miR-139-5p	-0.11	0.84	1.00
hsa-miR-518d-5p	-0.12	0.84	1.00
hsa-miR-126	-0.12	0.84	1.00
hsa-miR-152	-0.12	0.84	1.00
hsa-let-7g	-0.12	0.85	1.00
hsa-miR-422a	-0.12	0.85	1.00
hsa-miR-519d	-0.12	0.85	1.00
hsa-miR-363	-0.12	0.86	1.00
hsa-miR-212	-0.13	0.86	1.00
hsa-miR-490-5p	-0.13	0.86	1.00
hsa-miR-181d	-0.13	0.87	1.00
hsa-miR-495	-0.13	0.87	1.00
hsa-miR-95	-0.13	0.87	1.00
hsa-miR-302c	-0.13	0.87	1.00
hsa-miR-377	-0.13	0.87	1.00
hsa-miR-184	-0.13	0.87	1.00
hsa-miR-96	-0.14	0.88	1.00
hsa-miR-331-5p	-0.14	0.88	1.00
hsa-miR-194	-0.14	0.89	1.00
hsa-miR-376a	-0.14	0.89	1.00
hsa-miR-25	-0.14	0.89	1.00
hsa-miR-199a-5p	-0.14	0.89	1.00
hsa-miR-127-5p	-0.15	0.90	1.00
hsa-miR-134	-0.15	0.91	1.00
hsa-miR-10a	-0.16	0.91	1.00
hsa-miR-149	-0.16	0.91	1.00
hsa-miR-22	-0.16	0.91	1.00
hsa-miR-142-5p	-0.16	0.92	1.00
hsa-miR-224	-0.16	0.92	1.00
hsa-miR-328	-0.17	0.93	1.00
hsa-miR-151-5p	-0.17	0.93	1.00
hsa-miR-186	-0.17	0.93	1.00
hsa-miR-217	-0.18	0.94	1.00
hsa-miR-187	-0.18	0.94	1.00
hsa-miR-155	-0.18	0.94	1.00
hsa-miR-431	-0.18	0.94	1.00
hsa-miR-26b	-0.18	0.94	1.00
hsa-miR-499-5p	-0.18	0.94	1.00
hsa-miR-32	-0.19	0.95	1.00
hsa-miR-26a	-0.19	0.95	1.00
hsa-miR-181a	-0.19	0.95	1.00
hsa-miR-27b	-0.19	0.95	1.00

hsa-miR-338-5p	-0.19	0.95	1.00
hsa-miR-132	-0.19	0.95	1.00
hsa-miR-412	-0.20	0.96	1.00
hsa-miR-218	-0.20	0.96	1.00
hsa-miR-103	-0.20	0.96	1.00
hsa-miR-140-5p	-0.21	0.96	1.00
hsa-miR-197	-0.21	0.97	1.00
hsa-miR-204	-0.22	0.97	1.00
hsa-miR-130a	-0.23	0.97	1.00
hsa-miR-30e	-0.23	0.98	1.00
hsa-miR-27a	-0.23	0.98	1.00
hsa-miR-1	-0.23	0.98	1.00
hsa-let-7d	-0.24	0.98	1.00
hsa-miR-373	-0.24	0.98	1.00
hsa-miR-299-5p	-0.24	0.98	1.00
hsa-miR-455-5p	-0.24	0.98	1.00
hsa-miR-34b	-0.24	0.98	1.00
hsa-miR-424	-0.25	0.98	1.00
hsa-miR-200a	-0.25	0.98	1.00
hsa-miR-105	-0.25	0.99	1.00
hsa-miR-508-5p	-0.25	0.99	1.00
hsa-miR-221	-0.26	0.99	1.00
hsa-miR-30c	-0.26	0.99	1.00
hsa-miR-130b	-0.27	0.99	1.00
hsa-miR-371-5p	-0.27	0.99	1.00
hsa-miR-337-5p	-0.28	0.99	1.00
hsa-miR-376b	-0.28	0.99	1.00
hsa-miR-9	-0.28	0.99	1.00
hsa-miR-199b-5p	-0.29	0.99	1.00
hsa-miR-205	-0.29	0.99	1.00
hsa-miR-191	-0.30	1.00	1.00
hsa-miR-154	-0.30	1.00	1.00
hsa-miR-101	-0.31	1.00	1.00
hsa-miR-145	-0.32	1.00	1.00
hsa-miR-181b	-0.33	1.00	1.00
hsa-miR-23a	-0.34	1.00	1.00
hsa-miR-335	-0.37	1.00	1.00
hsa-miR-211	-0.38	1.00	1.00
hsa-miR-124	-0.42	1.00	1.00
hsa-miR-222	-0.41	1.00	1.00
hsa-miR-200c	-0.46	1.00	1.00
hsa-miR-361-5p	-0.47	1.00	1.00

The activities of miRNAs are inferred from the mRNA expression dataset published by Ambs et al.; the expressions of the corresponding miRNAs are also extracted from the miRNA expression dataset of Ambs et al., containing the same 60 prostate cancer tissues and 15 normal tissues. also extracted from the miRNA expression dataset of Ambs et al., containing the same 60 prostate cancer tissues and 15 normal tissues.

The correlation is measured as Spearman correlation coefficient; the pvalue represents the statistical significance of the corresponding correlation coefficient greater than 0; the q-value is computed by Benjamini-Hochberg method.