



Figure S1 The heatmaps of the selected microarrays

Table S1 The correlation between the high expression of miRNAs and clinicopathological features of GC patients.

Parameters	miR-455-3p				miR-135b-5p				let-7a-3p			
	Case	Low expression	High expression	P value	Case	Low expression	High expression	P value	Case	Low expression	High expression	P value
Age (Mean± SD)	387				387				387			
Sex				0.880				0.007				0.317
Female	132	58	74		132	50	82		132	52	80	
Male	255	110	145		255	63	192		255	114	141	
Pathological T				0.549				0.081				<0.001
I-II	98	40	58		98	21	74		98	24	74	
III-IV	289	128	161		289	91	198		289	142	147	
Pathological N				0.735				0.687				0.387
N0	121	51	70		121	37	84		121	48	73	
N1-3	266	117	149		266	76	190		266	118	148	
Pathological M				0.071				0.113				0.958
M0	347	156	191		347	97	250		347	149	198	
M1-3	40	12	28		40	16	24		40	17	23	
Pathological stages				0.881				0.573				0.002
I-II	178	78	100		186	50	128		178	61	117	
III-IV	209	90	119		209	63	146		209	105	104	
Histological type				<0.001				<0.001				0.756
Intestinal	175	55	120		176	33	143		176	77	99	
Diffuse	212	113	98		211	80	131		211	89	122	
Histological grade				0.002				<0.001				0.327
G1-G2	146	49	97		146	27	119		146	58	88	
G3-GX	241	119	122		241	86	155		241	108	133	
Anatomical subdivision				0.135				0.005				0.667
Cardia	98	50	48		98	15	83		98	45	53	
Fundus	138	50	88		138	44	94		138	57	81	
Antrum	143	65	78		143	51	92		143	62	81	
others	8	3	5		8	3	5		8	2	6	
Living status				0.761				0.37				0.031
Yes	236	101	135		236	65	171		236	91	145	
No	151	67	84		151	48	103		151	75	76	

Table S2a The correlation between the low expression of miRNAs and clinicopathological features of GC patients.

Parameters	miR-195-5p				miR-204-5p			
	Case	Low expression	High expression	P value	Case	Low expression	High expression	P value
Age (Mean± SD)	387				351			
Sex				0.381				0.226
Female	132	74	58		121	44	77	
Male	255	131	124		230	99	131	
Pathological T				0.654				0.197
I-II	98	50	48		88	41	47	
III-IV	289	155	134		263	102	161	
Pathological N				0.082				0.698
N0	121	72	49		104	44	60	
N1-3	266	133	133		247	99	148	
Pathological M				0.464				0.856
M0	347	186	161		313	127	186	
M1-3	40	19	21		38	16	22	
Pathological stages				0.233				0.507
I-II	178	82	96		178	67	90	
III-IV	209	109	100		209	76	118	
Histological type				0.028				0.001
Intestinal	176	104	72		158	79	79	
Diffuse	211	101	110		193	64	129	
Histological grade				0.069				0.461
G1-G2	146	86	60		127	55	72	
G3-GX	241	119	122		224	88	136	
Anatomical subdivision				0.114				0.902
Cardia	98	57	41		88	33	55	
Fundus	138	78	60		122	51	71	
Antrum	143	68	75		133	56	77	
others	8	2	6		8	3	5	
Living status				0.833				0.519
Yes	236	124	112		206	81	125	
No	151	81	70		145	62	83	

Table S2b The correlation between the low expression of miRNAs and clinicopathological features of GC patients.

Parameters	miR-149-5p				miR-143-3p			
	Case	Low expression	High expression	P value	Case	Low expression	High expression	P value
Age (Mean± SD)	387				387			
Sex				0.085				0.964
Female	132	43	89		132	96	36	
Male	255	106	149		255	186	69	
Pathological T				0.169				0.228
I-II	98	32	66		98	76	22	
III-IV	289	117	172		289	206	83	
Pathological N				0.087				0.773
N0	121	39	82		121	87	34	
N1-3	266	110	156		266	195	71	
Pathological M				0.410				0.420
M0	347	136	211		347	255	92	
M1-3	40	13	27		40	27	13	
Pathological stages				0.246				0.767
I-II	178	63	115		178	131	47	
III-IV	209	86	123		209	151	58	
Histological type				0.795				0.007
Intestinal	176	69	107		176	140	36	
Diffuse	211	80	131		211	142	69	
Histological grade				0.865				0.006
G1-G2	146	57	89		146	118	28	
G3-GX	241	92	149		241	164	77	
Anatomical subdivision				<0.001				0.084
Cardia	98	0	98		98	78	20	
Fundus	138	58	80		138	97	41	
Antrum	143	51	92		143	99	44	
others	8	1	7		8	8	0	
Living status				0.853				0.345
Yes	236	90	146		236	176	60	
No	151	59	92		151	106	45	

Table S3 The logistic regression analyses of the GC patients with up-regulated miRNAs.

Parameters	miR-455-3p			miR-135b-5p			let-7a-3p		
	OR	95% CI	P	OR	95%CI	P	OR	95%CI	P
Age (<60/>60)	0.93	0.59-1.47	0.76	1.53	0.93-2.51	0.09	1.35	0.86-2.12	0.20
Sex (Female/Male)	1.0	0.64-1.56	0.99	1.86	1.15-3.03	0.01	0.83	0.53-1.29	0.40
Pathological T (I-II/III-IV)	0.92	0.53-1.58	0.76	0.85	0.46-1.60	0.62	0.42	0.24-0.76	0.003
Pathological N (N0/N1-3)	0.79	0.43-1.46	0.46	1.45	0.72-2.90	0.29	1.73	0.91-3.31	0.10
Pathological M (M0/M1-3)	2.03	0.97-4.28	0.06	0.64	0.30-1.34	0.24	1.25	0.62-2.52	0.54
Pathological stages (I-II/III-IV)	1.06	0.57-1.97	0.86	0.73	0.36-1.47	0.37	0.53	0.28-1.0	0.05
Histological type (Intestinal/ Diffuse)	0.43	0.27-0.68	0.001	0.41	0.24-0.69	0.001	1.07	0.68-1.69	0.76
Histological grade (G1-2/G3-X)	0.67	0.45-1.02	0.06	0.64	0.40-1.02	0.06	0.93	0.62-1.40	0.74
Anatomical region Cardia/Fundus/ Antrum/ others	1.08	0.84-1.04	0.55	0.64	0.48-0.86	0.003	1.12	0.86-1.45	0.40
Living status(Yes /No)	1.02	0.66-1.59	0.92	1.24	0.76-2.04	0.39	1.46	0.94-2.26	0.09

Table S4 The logistic regression analyses of the GC patients with down-regulated miRNAs.

Parameters	miR-195-5p			miR-204-5p			miR-149-5p			miR-143-3p		
	OR	95% CI	P	OR	95% CI	P	OR	95% CI	P	OR	95% CI	P
Age (<60/>60)	0.64	0.41-1.0	0.05	0.83	0.52-1.34	0.45	0.98	0.63-1.54	0.94	0.79	0.48-1.28	0.34
Sex (Female/Male)	1.22	0.80-1.90	0.37	0.75	0.47-1.20	0.23	0.70	0.45-1.09	0.12	1.02	0.63-1.66	0.94
Pathological T (I-II/III-IV)	0.74	0.44-1.27	0.28	1.29	0.74-2.27	0.37	0.70	0.40-1.21	0.20	1.17	0.63-2.15	0.62
Pathological N (N0/N1-3)	1.71	0.94-3.12	0.08	1.08	0.57-2.05	0.81	0.65	0.35-1.20	0.17	0.77	0.39-1.51	0.45
Pathological M (M0/M1-3)	1.13	0.57-2.25	0.73	0.83	0.41-1.70	0.62	1.40	0.69-2.87	0.35	1.24	0.59-2.60	0.56
Pathological stages (I-II/III-IV)	0.93	0.51-1.71	0.82	1.20	0.63-2.30	0.58	1.13	0.62-2.09	0.69	1.18	0.60-2.35	0.63
Histological type (Intestinal/Diffuse)	1.69	1.08-2.64	0.02	2.12	1.38-3.55	0.001	1.04	0.66-1.62	0.88	1.68	1.02-2.77	0.04
Histological grade (G1-2/G3-X)	1.0	0.67-1.48	0.99	0.83	0.55-1.27	0.39	0.99	0.66-1.48	0.97	1.44	0.91-2.28	0.12
Anatomical region Cardia/Fundus/ Antrum/others	1.35	1.05-1.75	0.02	0.96	0.73-1.25	0.77	1.16	0.90-1.50	0.26	1.13	0.85-1.50	0.40
Living status (Yes /No)	1.09	0.70-1.68	0.71	1.18	0.75-1.87	0.48	0.94	0.61-1.46	0.79	0.83	0.51-1.34	0.44

Table S5 The univariate and multivariate (Cox regression) analyses of GC patients with up-regulated miRNAs.

Parameters	miR-455-3p				miR-135b-5p				let-7a-3p			
	Univariate analysis		Multivariate analysis		Univariate analysis		Multivariate analysis		Univariate analysis		Multivariate analysis	
	HR	P	HR	P	HR	P	HR	P	HR	P	HR	P
Age (<60 vs >60)	1.40 (0.99-2.00)	0.06	1.71 (1.19-2.45)	0.004	1.40 (0.99-2.00)	0.06	1.73 (1.20-2.49)	0.003	1.40 (0.99-2.00)	0.06	1.72 (1.19-2.47)	0.004
Sex (female vs. male)	1.24 (0.87-1.76)	0.23			1.24 (0.87-1.76)	0.23			1.24 (0.87-1.76)	0.23		
Pathological T (I-II vs. III-IV)	1.79 (1.18-2.70)	0.006	1.45 (0.91-2.31)	0.12	1.79 (1.18-2.70)	0.006	1.42 (0.90-2.27)	0.14	1.79 (1.18-2.70)	0.006	1.38 (0.86-2.21)	0.18
Pathological N (N0 vs. N1-3)	1.91 (1.29-2.84)	0.001	1.57 (0.93-2.65)	0.09	1.91 (1.29-2.84)	0.001	1.58 (0.93-2.68)	0.09	1.91 (1.29-2.84)	0.001	1.59 (0.94-2.69)	0.09
Pathological M (M0 vs. M1-3)	1.91 (1.19-3.06)	0.007	1.93 (1.19-3.12)	0.007	1.91 (1.19-3.06)	0.007	1.88 (1.15-3.05)	0.01	1.91 (1.19-3.06)	0.007	1.95 (1.21-3.15)	0.006
Pathological stages (I-II vs. III-IV)	1.85 (1.32-2.59)	<0.001	1.21 (0.74-1.97)	0.44	1.85 (1.32-2.59)	<0.001	1.20 (0.74-1.96)	0.46	1.85 (1.32-2.59)	<0.001	1.18 (0.72-1.93)	0.51
Histological type (intestinal vs. diffuse)	1.19 (0.87-1.65)	0.28			1.19 (0.87-1.65)	0.28			1.19 (0.87-1.65)	0.28		
Histological grade (G1-2 vs. G3-4)	1.38 (1.02-1.86)	0.04	1.41 (1.04-1.92)	0.03	1.38 (1.02-1.86)	0.04	1.37 (1.00-1.86)	0.04	1.38 (1.02-1.86)	0.04	1.42 (1.04-1.92)	0.03
Anatomical subdivision (cardia/fundus/antrum)	0.98 (0.81-1.19)	0.84			0.98 (0.81-1.19)	0.84			0.98 (0.81-1.19)	0.84		
MiRNA expression (low vs. high)	1.04 (0.75-1.43)	0.24	1.10 (0.80-1.53)	0.56	0.81 (0.57-1.14)	0.22	0.86 (0.60-1.23)	0.40	0.77 (0.56-1.06)	0.11	0.80 (0.58-1.11)	0.19

Abbreviation: GEJ: gastroesophageal junction.

Table S6a The univariate and multivariate (Cox regression) analyses of GC patients with down-regulated miRNAs.

Parameters	miR-195-5p				miR-204-5p			
	Univariate analysis		Multivariate analysis		Univariate analysis		Multivariate analysis	
	HR	P	HR	P	HR		HR	
Age (<60 vs >60)	1.40 (0.99-2.00)	0.06	1.68 (1.17-2.42)	0.005	1.36 (0.95-1.94)	0.09	1.62 (1.12-2.34)	0.01
Sex (female vs. male)	1.24 (0.87-1.76)	0.23			1.28 (0.90-1.83)	0.17		
Pathological T (I-II vs. III-IV)	1.79 (1.18-2.70)	0.006	1.42 (0.89-2.26)	0.15	1.70 (1.12-2.58)	0.01	1.44 (0.90-2.32)	0.13
Pathological N (N0 vs. N1-3)	1.91 (1.29-2.84)	0.001	1.58 (0.93-2.68)	0.09	1.79 (1.19-2.67)	0.005	1.54 (0.90-2.64)	0.11
Pathological M (M0 vs. M1-3)	1.91 (1.19-3.06)	0.007	1.95 (1.21-3.15)	0.006	1.87 (1.15-3.03)	0.01	1.91 (1.17-3.11)	0.01
Pathological stages (I-II vs. III-IV)	1.85 (1.32-2.59)	<0.001	1.21 (0.74-1.96)	0.45	1.74 (1.23-2.45)	0.002	1.13 (0.69-1.87)	0.62
Histological type (intestinal vs. diffuse)	1.19 (0.87-1.65)	0.28			1.23 (0.89-1.71)	0.21		
Histological grade (G1-2 vs. G3-4)	1.38 (1.02-1.86)	0.04	1.41 (1.04-1.91)	0.03	1.39 (1.02-1.90)	0.04	1.39 (1.01-1.91)	0.04
Anatomical subdivision (cardia/fundus/antrum)	0.98 (0.81-1.19)	0.84			0.96 (0.79-1.17)	0.71		
MiRNA expression (low vs. high)	1.04 (0.88-1.23)	0.66	0.91 (0.65-1.27)	0.58	0.96 (0.69-1.34)	0.83	0.97 (0.70-1.35)	0.86

Table S6b The univariate and multivariate (Cox regression) analyses of GC patients with down-regulated miRNAs.

Parameters	miR-149-5p				miR-143-3p			
	Univariate analysis		Multivariate analysis		Univariate analysis		Multivariate analysis	
	HR	P	HR	P	HR		HR	
Age (<60 vs >60)	1.40 (0.99-2.00)	0.06	1.70 (1.18-2.45)	0.004	1.40 (0.99-2.00)	0.06	1.71 (1.19-2.46)	0.004
Sex (female vs. male)	1.24 (0.87-1.76)	0.23			1.24 (0.87-1.76)	0.23		
Pathological T (I-II vs. III-IV)	1.79 (1.18-2.70)	0.006	1.43 (0.90-2.29)	0.15	1.79 (1.18-2.70)	0.006	1.43 (0.90-2.28)	0.13
Pathological N (N0 vs. N1-3)	1.91 (1.29-2.84)	0.001	1.55 (0.92-2.63)	0.09	1.91 (1.29-2.84)	0.001	1.56 (0.92-2.64)	0.10
Pathological M (M0 vs. M1-3)	1.91 (1.19-3.06)	0.007	1.95 (1.21-3.15)	0.006	1.91 (1.19-3.06)	0.007	1.93 (1.20-3.12)	0.007
Pathological stages (I-II vs. III-IV)	1.85 (1.32-2.59)	<0.001	1.22 (0.75-1.98)	0.43	1.85 (1.32-2.59)	<0.001	1.21 (0.75-1.98)	0.43
Histological type (intestinal vs. diffuse)	1.19 (0.87-1.65)	0.28			1.19 (0.87-1.65)	0.28		
Histological grade (G1-2 vs. G3-4)	1.38 (1.02-1.86)	0.04	1.39 (1.03-1.89)	0.03	1.38 (1.02-1.86)	0.04	1.38 (1.02-1.88)	0.03
Anatomical subdivision (cardia/fundus/antrum)	0.98 (0.81-1.19)	0.84			0.98 (0.81-1.19)	0.84		
MiRNA expression (low vs. high)	0.92 (0.67-1.28)	0.63	1.00 (0.72-1.40)	0.98	1.09 (0.77-1.55)	0.62	1.09 (0.76-1.55)	0.64