Table S1 Clinical pathological characters of the 16 patients for *miRNA-940* qRT-PCR validation

Group	Age	Gender	Smoke	Size (cm)	Invasive	Subtypes (%)					Stage
						L	A	P	MP	S	
B1	61	F	N	2.5	–	15	70	10	5	0	IA
B2	70	F	N	4.0	PI+	0	30	0	60	10	IB
B3	54	F	N	2.5	PI+	10	90	0	0	0	IB
B4	56	F	N	1.7	PI+	50	40	10	0	0	IB
B5	74	F	N	2.5	–	0	15	80	5	0	IA
B6	58	F	N	2.5	PI+	5	40	55	0	0	IB
B7	68	F	N	3.0	–	0	15	80	5	0	IA
B8	66	F	N	2.5	–	0	90	0	0	10	IA
A1	63	F	N	1.5	–	10	90	0	0	0	IA
A2	73	F	N	2.2	–	20	80	0	0	0	IA
A3	67	F	N	1.7	PI+	10	80	10	0	0	IB
A4	45	F	N	3.0	–	0	75	0	5	20	IA
A5	48	F	N	0.8	–	20	80	0	0	0	IA
A6	67	F	N	1.5	–	80	20	0	0	0	IA
A7	64	F	N	2.0	–	10	80	10	0	0	IA
A8	62	F	N	1.8	PI+	30	70	0	0	0	IB

B1–B6: high-risk group; A1–A6. F, female; N, none; cm, centimeter; PI+, pleural invasion; V+, vessel invasion; L, lepidic subtype; A, acinar subtype; P, papillary subtype; MP, micropapillary subtype; S, solid subtype.
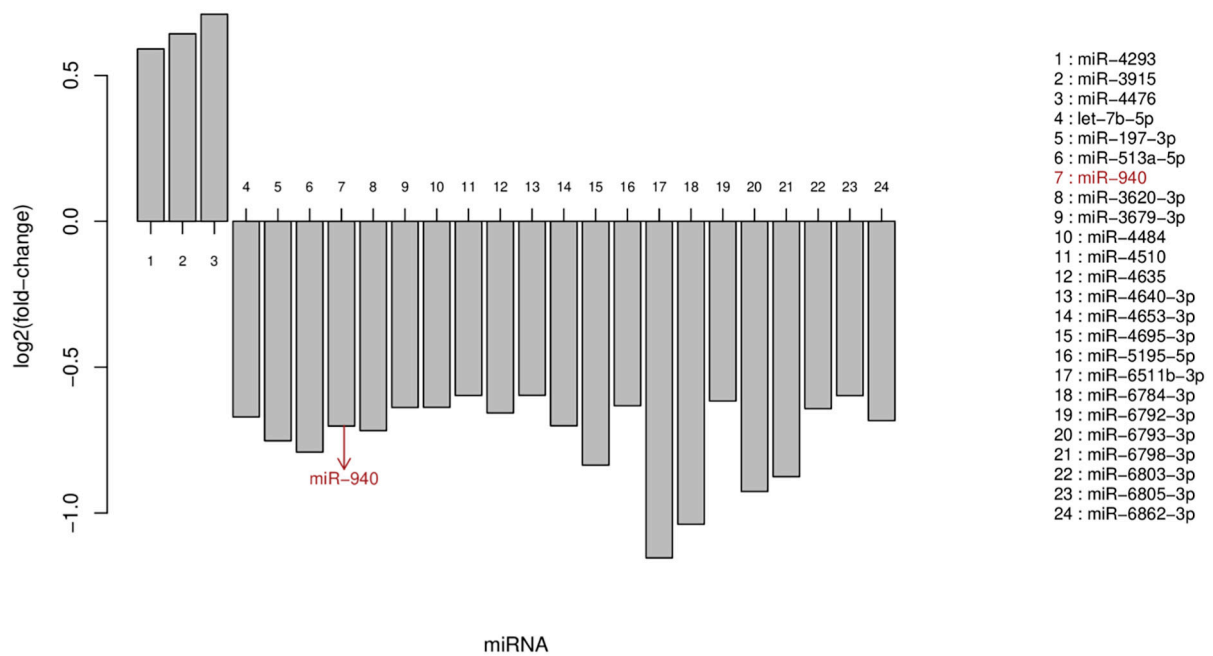
Figure S1 miRNA expression profile from the comparison of the high-risk and low-risk group. The results of the miRNA expression profile were analyzed by *t*-test using the RVM based on a small sample, of which 24 kinds of miRNAs were selectively screened. Low expression was found in 3 kinds of miRNAs (*miR-4293, miR-3915, and miR-4476*), and high expression was found in 21 kinds of miRNAs (*let-7b-5p, miR-197-3p, miR-513a-5p, miR-940, miR-3620-3p, miR-3679-3p, miR-4484, miR-4510, miR-4635, miR-4640-3p, miR-4653-3p, miR-4695-3p, miR-5195-5p, miR-6511b-3p, hsa-miR-6784-3p, miR-6792-3p, miR-6793-3p, miR-6798-3p, miR-6803-3p, miR-6805-3p, and miR-6862-3p*; P<0.05; FDR <0.05).
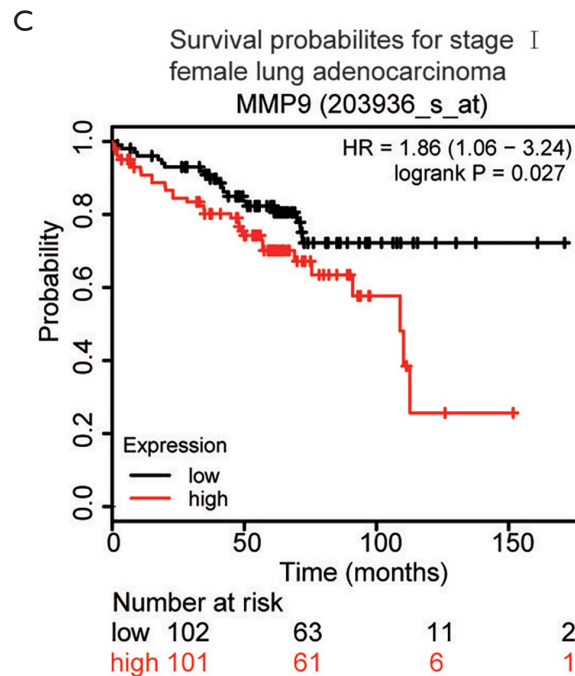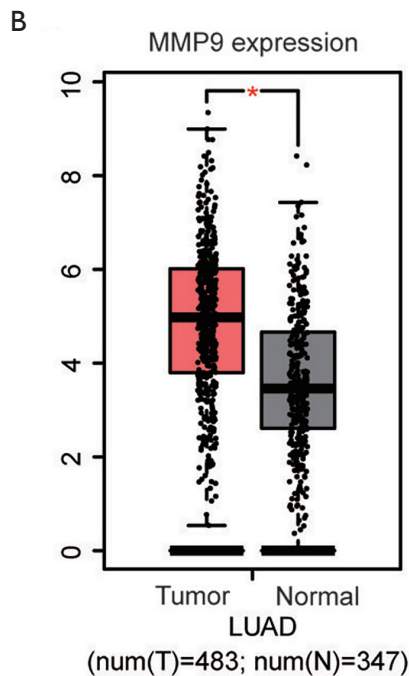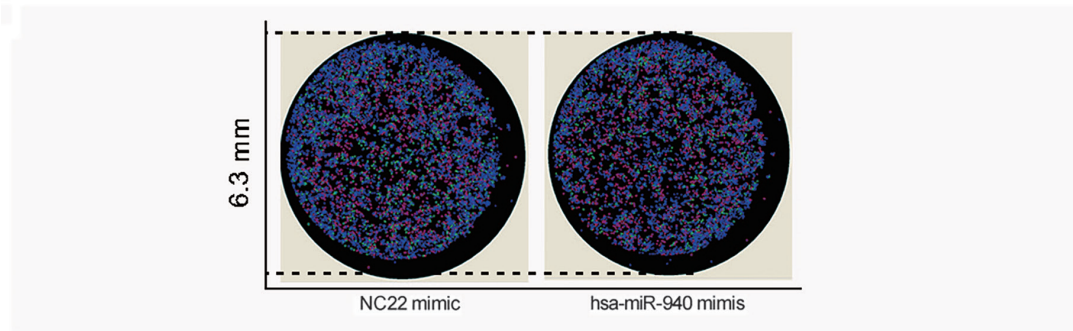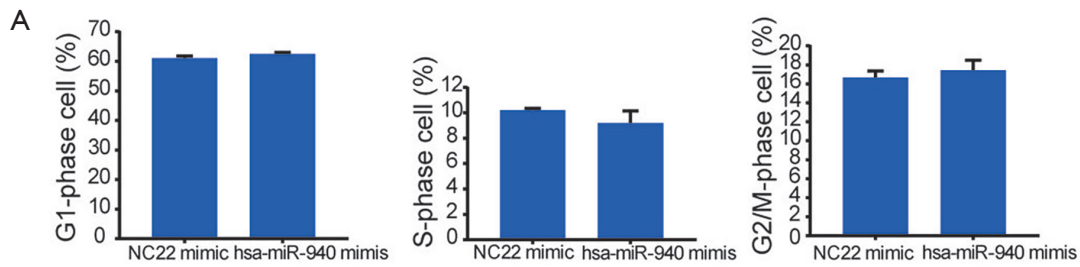
Figure S2 Cell cycle analysis and the relationship between *miR-940* and matrix metallopeptidase 9 (*MMP9*). (A) Cell cycle analysis showed that the percentage of cells in G1 phase, S phase, and G2/M phase had no significant difference after transfection of *miR-940* into the lung adenocarcinoma A-549 cells. These intensive experiments were done on the Acumen eX3 platform, which is based on laser scanning imaging. The stain method is DAPI [2-(4-Amidinophenyl)-6-indolecarbamidine dihydrochloride]. (B) The expression level of *MMP9* in LUAD tumor tissue (n=483) was higher than that in normal tissue (n=347; P<0.05) (*, P<0.05). (C) In the Kapan-Meier plotter survival analysis, the low MMP9 expression group (n=102) had better survival rates than did the high MMP9 expression group (n=101), especially for stage I female LUAD patients. The risk factor was 1.86 (1.06–3.24; P=0.027).